

# ComEd Summary Impact Evaluation Report

**Energy Efficiency/Demand Response Plan:  
Program Year 2023 (CY2023)  
(1/1/2023-12/31/2023)**

**Prepared for:**

**ComEd**

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## 1. Introduction

This report presents the results of the impact evaluation of ComEd's Program Year 2023 (CY2023) slate of energy efficiency programs offered under the Energy Efficiency Portfolio Standard (EEPS) umbrella. It presents a summary of the energy and peak demand impacts for the portfolio and each program and some detail on measure-specific savings. CY2023 covers January 1, 2023 through December 31, 2023.

In CY2023, ComEd's portfolio evaluation included 19 programs, including 7 Business, 8 Residential/Income Eligible (RES/IE), 2 Pilot programs, one Market Transformation program and one cross-cutting program, Voltage Optimization, as listed in Table 1-1.

This summary report contains program savings that ComEd can claim for CY2023 including

- Savings from efficient measures, including direct efficiency kWh savings from non-electrification and electrification measures,
- Net electrification savings from the increase in kWh consumption and decrease in gas consumption from electrification (kWh equivalent) that ComEd can claim toward its goal,
- Reduction in water usage that produces secondary kWh savings from water supply and wastewater treatment,
- Gas savings in therms converted to kWh that ComEd can claim toward its goal,
- Electric heating penalties that have been applied against the total kWh savings,
- The portion of savings realized from the income eligible sector (non-electrification and electrification measures).
- Purchased kWh savings from Nicor Gas' Air Sealing and Insulation (ASI) offering

Process evaluation findings and results of net-to-gross research are presented in separate reports.

Five programs had carryover savings from measures sold or incented in CY2021 and CY2022 that were installed in CY2023. The programs are Midstream/Upstream, Small Business, Retail/Online, Product Distribution, and Single Family Upgrades.

This report includes five programs that ComEd implemented jointly or coordinated with Nicor Gas Company, Peoples Gas Light and Coke Company ("PGL") and North Shore Gas Company ("NSG"). These were Single Family Upgrades, Multi-family Upgrades, New Construction - Bus/Pub, New Construction - IE, and Targeted Systems.

**Table 1-1: ComEd CY2023 Energy Efficiency Programs**

Sector	Program
Voltage Optimization	Voltage Optimization
<b>Business &amp; Public Sector</b>	
Business & Public Sector	Assessments
Business & Public Sector	Behavior - Bus/Pub
Business & Public Sector	Incentives
Business & Public Sector	Midstream/Upstream
Business & Public Sector	New Construction - Bus/Pub
Business & Public Sector	Small Business
Business & Public Sector	Targeted Systems
<b>Residential (Res) &amp; Income Eligible (IE)</b>	
Res & IE	Behavior - Res/IE
Res & IE	Contractor/Midstream Rebates
Res & IE	Multifamily Upgrades
Res & IE	New Construction - IE
Res & IE	Electric Homes New Construction
Res & IE	Product Distribution
Res & IE	Retail/Online
Res & IE	Single Family Upgrades
<b>Pilots &amp; Market Transformation</b>	
Pilot	Heat Pump Water Heater Pilot
Pilot	Industrial Energy Management Information Systems
Market Transformation	ENERGY STAR Retail Products Platform

Notes: This table contains only ComEd programs. The Nicor ASI offering is not included here as a program, but the savings are counted in subsequent sections as part of the residential sector kWh savings.

Source: ComEd tracking data and Guidehouse evaluation reports.

## 2. Portfolio Savings

The evaluation calculated incremental annual savings and cumulative persisting annual savings (CPAS) from the ComEd CY2023 programs. Each is presented below.

### 2.1 Annual Savings

Table 2-1 summarizes the incremental energy and peak demand savings the ComEd portfolio achieved in CY2023. This table includes primary kWh savings from efficient measures, legacy savings, and electrification savings, which are capped at 5% per year of the applicable annual total savings (AATS) according to 220 ILCS 5/8-103B(b-27) of the Illinois Public Utilities Act. The electrification savings are in addition to the 10% cap of AATS that ComEd can claim from non-electricity energy savings (include gas savings converted to electricity) allowed under Section 8-103B(b-25). The table presents the applicable annual incremental goal (AAIG) achieved in CY2023. The terms and calculation approaches are defined in Section 2.2.

**Table 2-1: Total Annual Savings**

Key	Savings Category	Energy Savings (kWh)	Peak Demand Savings (kW)
A	Ex Ante Gross Savings - Direct	1,338,737,317	274,540
B	Portfolio Gross Realization Rate	1.07	0.78
C	Verified Gross Savings - Direct†	1,427,837,880	215,209
D	Portfolio Net-to-Gross Ratio (NTG)	0.99	0.99
E	Verified Net Savings (excl. Electrification Savings)	1,406,752,002	214,101
F	Verified Net Savings (incl. Electrification Savings)	1,446,674,404	214,101
G	Verified IE Net Savings (excl. Electrification Savings)	462,947,229	55,939
H	Verified IE Net Savings (incl. Electrification Savings)	478,183,268	55,939
I	ASI kWh Purchase	791,055	377
J	Legacy Savings‡	2,573,016,371	
K	Other Fuel Savings Eligible for Claiming (Therms)	14,632,771	
L	Other Fuel Savings Counted Toward Goal (Therms)	5,277,551	
M	Other Fuel Savings Counted Toward Goal (kWh)§	154,685,034	
N	Electrification Savings (from Fuel Switch) Eligible for Claiming	39,922,402	
O	Electrification Savings (from Fuel Switch) Counted Toward Goal	39,922,402	
P	Total Net Savings (Electric-Direct + Gas Savings Counted + Electrification Savings Counted)	1,601,359,437	214,101
Q	Historic Portfolio Total Savings (Electric + Gas Savings Counted + Electrification)#	7,867,930,408	
R	Grand Total Net Savings (Plus Legacy, Total Net Savings, Historic Savings)	12,042,306,217	214,101
S	Historic Incremental Expiring Savings*†	215,326,019	
T	Legacy Incremental Expiring Savings	360,980,895	
U	CPAS Statutory Goal††	11,952,076,046	
V	CPAS Achieved as Percent of Goal	100.8%	
W	Applicable Annual Incremental Goal (AAIG)†§	970,543,422	
X	Applicable Annual Total Savings (AAIG + Legacy Expiring + Historic Expiring Savings)‡§	1,546,850,336	
Y	Applicable Annual Incremental Savings Achieved‡	1,025,052,523	
Z	AAIG Achieved as Percent of Goal	105.6%	

Notes: The totals in this table may vary slightly from the totals in other tables and the totals summed across the individual program reports due to rounding.

**Carryover:** Verified gross savings includes carryover savings.

**Portfolio NTG Ratio:** Guidehouse calculated the portfolio NTG ratio by dividing the total net savings by the total verified gross savings. However, some programs do not report ex ante gross savings and only report net savings (e.g., the Behavior – Res/IE program). Where the evaluation approach also produces net savings as its primary output, we did not calculate verified gross savings.

\* The Peak Demand Savings are savings occurring at coincident Summer Peak period, defined as 1:00-5:00 PM Central Prevailing Time on non-holiday weekdays, June through August. This definition is in accordance with the PJM requirement.

† Electric Energy Savings - Direct includes primary kWh savings from efficient measures (includes efficiency savings from electrification measures but excludes the electrification savings), secondary kWh savings from wastewater treatment, and electric heating penalties.

‡ Legacy Savings are estimated by multiplying statutory 2023 CPAS Legacy Savings percent (3.1%) by ComEd Baseline

- 2014-2016 Average Annual Sales Less Exempt Customers MWh value of 83,000,528.

§ Gas savings are converted to kWh by multiplying therms by 29.31 (which is based on 100,000 Btu/therm and 3,412 Btu/kWh).

|| Electrification savings from electrification measures excluding direct efficiency savings. Calculated from net electric savings from the increase in kWh consumption and decrease in gas consumption from electrification (kWh equivalent).

# Historical savings go back to CY2018.

\*† Incremental expiring savings are equal to CPAS Yn-1 - CPAS Yn.

†‡ Estimated by multiplying the statutory 2023 CPAS Goal percent (14.4%) by ComEd Baseline - 2014-2016 Average Annual Sales Less Exempt Customers MWh value of 83,000,528.

†§ Applicable Annual Incremental Goal (AAIG) is equal to CPAS Yn Goal - CPAS Yn-1 Goal

‡§ Applicable Annual Total Savings (AATS) is the savings needed to achieve 100% AAIG (it is the sum of AAIG, Legacy Expiring Savings and Historic Expiring Savings).

‡|| Estimated as new incremental savings from 2023 after offsetting incremental expiring savings in 2023.

Source: ComEd tracking data and evaluation team analysis

Table 2-2 summarizes the incremental energy and demand savings achieved in CY2023.

**Table 2-2: Total Annual Incremental Savings**

Savings Type	Portfolio	Ex Ante Gross Savings	Verified Gross Realization Rate	Verified Gross Savings	NTG*	Verified Net Savings
Energy (kWh)	Business & Public Sector	735,050,153	1.02	748,802,288	0.91	681,084,151
Energy (kWh)	Res & IE	529,864,412	1.13	598,721,089	1.08	645,695,806
Energy (kWh)	Pilot	1,757,831	0.97	1,712,289	0.80	1,369,831
Energy (kWh)	Market Transformation	3,460,734	2.78	9,610,560	1.00	9,610,560
Energy (kWh)	Voltage Optimization	68,604,187	1.01	68,991,654	1.00	68,991,654
Energy (kWh)	<b>Total</b>	<b>1,338,737,317</b>	<b>1.07</b>	<b>1,427,837,880</b>	<b>0.99</b>	<b>1,406,752,002</b>
Peak Demand (kW)	Business & Public Sector	121,456	1.07	129,501	0.92	118,606
Peak Demand (kW)	Res & IE	140,711	0.51	71,802	1.14	81,589
Peak Demand (kW)	Pilot	6.67	0.16	1.05	0.80	0.84
Peak Demand (kW)	Market Transformation	-	-	1,449	1.00	1,449
Peak Demand (kW)	Voltage Optimization	12,366	1.01	12,456	1.00	12,456
Peak Demand (kW)	<b>Total</b>	<b>274,540</b>	<b>0.78</b>	<b>215,209</b>	<b>0.99</b>	<b>214,101</b>

Note: The Nicor ASI purchased kWh are counted as part of the Res/IE sector.

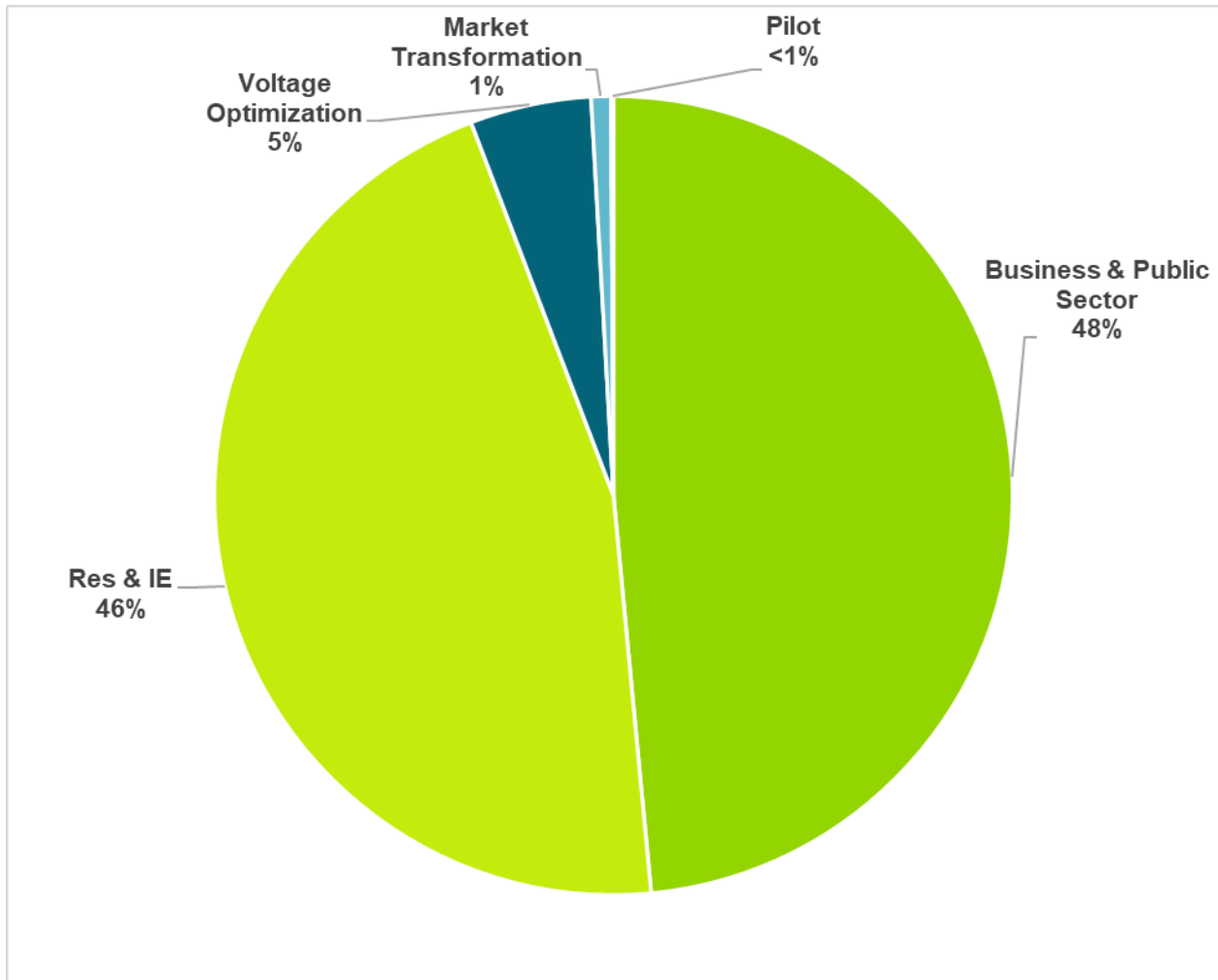
\* The NTG is calculated as the sum of net savings divided by the sum of verified gross savings after excluding measures that do not have verified gross estimates (e.g., some behavior programs).

Source: ComEd tracking data and evaluation team analysis.

Figure 2-1 provides the percent net electric (kWh direct) savings by the sectors. Further detail on the savings by program are shown in subsequent sections.



**Figure 2-1. Annual Incremental Electric Savings by Sector**



Source: ComEd tracking data and evaluation team analysis.

## 2.2 Cumulative Persisting Annual Savings (CPAS)

Per Section 8-103B of the Illinois Public Utilities Act, ComEd’s energy efficiency goals are expressed in CPAS, which is the sum of the electric energy savings achieved in a given year from all measures installed in that year and in previous years, but no earlier than January 1, 2012, that are still operational and providing savings in that year. The CPAS savings are presented in tables at the end of this section.

## 2.2.1 Other Fuel (Gas + Propane) Savings

The gas savings attributed to ComEd's programs are only those not claimed by the Illinois gas utilities so that there is no double-counting.<sup>1</sup> Some of the gas savings that ComEd can claim are from programs jointly implemented with the gas utilities, and some are from ComEd-only programs that produce gas savings along with electric savings. According to Section 8-103B(b-25) of the Illinois Public Utilities Act, "In no event shall more than 10% of each year's applicable annual total savings (AATS) as defined in paragraph (7.5) of subsection (g) of this Section be met through savings of fuels other than electricity." For CY2023, ComEd's savings target (AATS) is 1,546,850 MWh<sup>2</sup> (Table 2-1 row X) and so ComEd can claim up to 154,685 MWh in other fuel savings (Table 2-1 row M).<sup>3</sup>

The Clean Energy Jobs Act (CEJA) specifies that ComEd shall prioritize other fuels (which in CY2023 are from natural gas and propane) for the Income Eligible population first to the extent practicable but can use other fuels from other sectors to achieve its target. To calculate the other fuels' savings eligible for claiming, the evaluation team used a data set containing all measure-level savings, with associated sector and program flags. We sorted the measures from the Income Eligible programs to the top, then sorted by descending measure life. We calculated cumulative savings from the top of the data set until the cumulative total reached the maximum ComEd can claim. Only those savings above that point are included in the tables at the end of this section.

## 2.2.2 Electrification Savings (Electrification)

CEJA authorizes claimed savings from measures that electrify space heating, water heating, cooling, drying, cooking, industrial processes, and other building and industrial end uses that would otherwise be served by combustion of fossil fuel at the premises, provided that the electrification measures reduce total consumption on the premises. In CY2023, the key electrification measures included a family of heat pumps, heat pump water heaters, clothes dryer, induction cooktops, and fork trucks. A subset of installed heat pumps had a Beneficial Electrification rebate applied. The associated energy savings were adjusted accordingly based on the incentive split between Beneficial Electrification and Energy Efficiency.<sup>4</sup>

According to Section 8-103B(b-27) of the Illinois Public Utilities Act, "In no event shall electrification savings counted toward each year's applicable annual total savings requirement, as defined in paragraph (7.5) of subsection (g) of this Section, be greater than 5% per year for each year from

<sup>1</sup> For 2023, Guidehouse identified some measures where it was possible to confirm the gas companies were not also claiming gas savings (e.g., they did not claim gas savings on clothes washers, ductless mini-split heat pumps, and EMS). There were other measures where the ComEd joint program data indicated the percentage of gas savings claimed by ComEd or by gas utilities (e.g., Kitchen DCV, programmable thermostats, water measures, air sealing and pipe insulation). Those measures and gas savings were confirmed by Guidehouse to have no potential double counting from the gas utilities' data and were included in the sorting process to determine the gas savings counted in the calculation of the savings ComEd can claim toward goal.

<sup>2</sup> ComEd-CY2023-Q4-Statewide-Quarterly-Report.

<sup>3</sup> CEJA Statute: 220 ILCS 5/8-103B(g)(7.5). Section 8-103B. The 2023 applicable annual total savings is estimated as the summary of applicable annual incremental goal which is the difference in the 2023 CPAS Statutory Goal (11,952,076 MWh) and the 2022 CPAS Statutory Goal (10,981,533 MWh), plus the expiring legacy savings and expiring historic savings; ComEd-CY2023-Q4-Statewide-Quarterly-Report.

<sup>4</sup> ComEd Beneficial Electrification Plan 1 (2023-2025) Annual Report PY2023:

<https://www.icc.illinois.gov/docket/P2022-0432/documents/348887/files/609880.pdf>. In accordance with the final order section (i) sub-section (iii) Residential BE Technology Adoption Sub-program, at page 38-39, pursuant to 220 ILCS 5/8-103B, Docket No. 22-0432/22-0442 (Cons.).

2022 through 2025.” For CY2023, ComEd’s savings target (AATS) is 1,546,850 MWh<sup>5</sup> (Table 2-1 row x) and so ComEd can claim up to 77,343 MWh in energy efficient electrification savings. No benefits, savings, or costs associated with the Beneficial Electrification rebates are included in this summary report.

To calculate the electrification savings eligible for claiming, the evaluation team used a data set containing all measure-level electrification savings, with associated sector and program flags. We sorted the measures from the Income Eligible programs to the top, then sorted by descending measure life. We calculated cumulative electrification savings from the top of the data set until the cumulative total reached the maximum ComEd can claim, with at least 25% of savings coming from electrification of end uses in income eligible housing. Only those savings above that point are included in the tables at the end of this section.

### 2.2.3 Legacy Savings

CEJA specifies legacy savings, which are CPAS from energy efficiency measures implemented by ComEd from January 1, 2012 to December 31, 2017, that are still providing savings in the applicable year. The evaluation applied the deemed legacy savings of 2,573,016 MWh toward ComEd verified CPAS in CY2023 (Table 2-1 row J).<sup>6</sup>

### 2.2.4 Historical Savings

CEJA requires that historical savings be included in CPAS. This means that the CPAS tables shown in this report include savings from measures installed in 2018 through 2022 that have not reached the end of their effective useful life (EUL). It also means that the CPAS tables account for expiring savings. The evaluation applied the historical contribution to CPAS of 7,867,930 MWh (electric 7,303,100 MWh, counted gas converted of 552,424 MWh, and electrification 12,406 MWh) toward ComEd verified total CPAS in CY2023 (Table 2-1 row Q).

### 2.2.5 Expiring Savings

CEJA specifies that each year ComEd’s programs must replace energy savings for measures that have reached the end of their measure lives before any progress towards achievement of its AAIG may be counted. The evaluation calculated incremental expiring savings using the following equation:

#### Equation 2-1. Incremental Expiring Savings

$$\text{Incremental Expiring Savings} = \text{CPAS } Y_{\{n-1\}} - \text{CPAS } Y_n$$

The grand total incremental expiring savings in CY2023 is estimated as CY2023 incremental expiring savings plus the legacy incremental expiring savings in CY2023 and historical expiring savings since CY2018, given a value of 576,307 MWh (in CY2023, there were no incremental

<sup>5</sup> ComEd-CY2023-Q4-Statewide-Quarterly-Report

<sup>6</sup> For CY2023, legacy savings are estimated by multiplying statutory 2023 CPAS Legacy Savings percent (3.1%) by ComEd Baseline - 2014-2016 Average Annual Sales Less Exempt Customers MWh value of 83,000.528.

expiring savings, the value came from legacy incremental expiring savings of 360,981 MWh (Table 2-1 row T), and historical incremental expiring savings<sup>7</sup> of 215,326 MWh (Table 2-1 row S).

### 2.2.6 Total Savings

As shown in the tables below, ComEd’s CY2023 energy efficiency programs achieved total direct electric CPAS of 1,406,752 MWh (Table 2-1 row E).<sup>8</sup> They achieved 14,632,771 therms savings from other fuels, which converts to 428,887 MWh.<sup>9</sup> From those other fuel savings, ComEd can claim 154,685 MWh (Table 2-1 row M) toward their annual incremental goal. In CY2023, Income Eligible programs achieved 156,815 MWh of savings from other fuels. Per CEJA, we prioritized income eligible measures with higher measure life until we reached the 154,685 MWh counted towards ComEd incremental goal.

ComEd achieved 39,922 MWh from electrification measures (Table 2-1 row N). Of that, 15,236 MWh came from income eligible households, which was 38.2% of the total. The legislation states that 25% of the electrification savings ComEd can claim toward their goal must come from low income housing. Given that, ComEd can claim the full amount. The evaluation has counted 39,922 MWh towards ComEd’s goal (Table 2-1 row O).

Adding the current year electric savings to the allowable converted other fuel savings and electrification savings gives 1,601,359 MWh total savings (Table 2-1 row P). Adding the legacy savings of 2,573,016 MWh and historical savings since CY2018, the grand total CY2023 CPAS that ComEd can claim is 12,042,306 MWh (Table 2-1 row R) (which is 100.8% of the CPAS goal of 11,952,076 MWh [Table 2-1 row U]).

### 2.2.7 Applicable Annual Incremental Goal (AAIG)

From the legislation,<sup>10</sup> the AAIG is estimated as the difference between the statutory CPAS goal for current year (CY2023) and the CPAS goal for the immediately preceding year (CY2022). We calculate progress toward AAIG that ComEd achieved in CY2023 as the difference in verified CY2022 CPAS and the incremental expiring savings (both expiring legacy savings and post 2017 expiring programmatic savings).

#### Equation 2-2. Applicable Annual Incremental Goal (AAIG)

$$AAIG = CPAS Y_n \text{ Goal} - CPAS Y_{\{n-1\}} \text{ Goal}$$

#### Equation 2-3. Applicable Annual Incremental Goal Achieved

$$\text{Progress toward AAIG} = CPAS Y_n - \text{Incremental Expiring Savings } Y_n$$

In CY2023, the AAIG is estimated as 970,543 MWh (Table 2-1 row W). The estimated progress toward goal that ComEd achieved is 1,025,053 MWh (row Y), which is the difference between the CPAS that

<sup>7</sup> Historic incremental expiring savings are equal to Historic CPAS Y<sub>n-1</sub> – Historic CPAS Y<sub>n</sub>.

<sup>8</sup> Direct electric savings includes primary kWh savings from efficient measures (includes efficiency savings from electrification measures but excludes the electrification savings), secondary kWh savings from wastewater treatment, and electric heating penalties.

<sup>9</sup> Other fuel savings are converted to kWh by multiplying therms by 29.31 (which is based on 100,000 Btu/therm and 3,412 Btu/kWh).

<sup>10</sup> CEJA Statute: 220 ILCS 5/8-103B(g)(7.5). Section 8-103B.

ComEd can claim against their goal (1,601,359 MWh) and the grand total incremental expiring savings (576,307 MWh). The AAIG achieved as percent of goal (970,543 MWh) is 105.6% (Table 2-1 row Z).

### **2.2.8 Applicable Annual Total Savings (AATS)**

From the legislation, the AATS is estimated as the total amount of new annual savings that the utility must achieve in any given year to achieve the AAIG. This is equal to the AAIG plus the total new annual savings that are required to replace savings that expired in or at the end of the previous year (expiring legacy savings and expiring historic savings). For CY2023, ComEd's savings target (AATS) is 1,546,850 MWh (Table 2-1 row X).

#### **Equation 2-4. Applicable Annual Incremental Goal (AATS)**

$$\text{AATS} = \text{AAIG} + \text{Legacy Expiring Savings} + \text{Historic Expiring Savings}$$

Table 2-3: CPAS by Program – Electric Direct

Sector	Program	WAML*	CY2023 Verified Gross Savings (kWh)	NTG†	Lifetime Net Savings (kWh)‡	2018	2019	2020	2021	2022	2023	2024
Business & Public Sector	Small Business	13.11	233,649,049	0.98	2,902,350,098	-	-	-	-	-	227,894,346	227,861,072
Business & Public Sector	Incentives	14.19	212,558,739	0.92	2,716,726,762	-	-	-	-	-	195,436,486	195,436,486
Business & Public Sector	Midstream/Upstream	13.11	141,750,009	0.86	1,566,918,012	-	-	-	-	-	122,085,232	122,085,232
Business & Public Sector	Targeted Systems	7.68	94,947,654	0.86	617,059,570	-	-	-	-	-	81,694,225	81,694,225
Business & Public Sector	Behavior Bus/Pub	7.00	42,494,273	0.97	288,553,690	-	-	-	-	-	41,221,956	41,221,956
Business & Public Sector	New Construction - Bus/Pub	17.40	20,947,081	0.50	181,696,446	-	-	-	-	-	10,442,324	10,442,324
Business & Public Sector	Assessments	3.60	2,455,483	0.94	8,316,215	-	-	-	-	-	2,309,581	2,309,581
Res & IE	Product Distribution	8.58	298,789,722	1.00	2,415,609,366	-	-	-	-	-	298,581,053	298,581,053
Res & IE	Retail/Online	11.07	236,334,570	0.87	2,144,085,171	-	-	-	-	-	204,499,758	204,499,377
Res & IE	Multifamily Upgrades	13.07	33,376,661	0.99	426,798,392	-	-	-	-	-	33,044,033	32,991,150
Res & IE	Contractor / Midstream Rebates	15.82	15,952,744	0.82	171,214,859	-	-	-	-	-	13,054,563	13,054,563
Res & IE	Single-Family Upgrades	11.96	11,912,342	0.99	129,227,661	-	-	-	-	-	11,842,186	11,822,138
Res & IE	New Construction - IE	15.89	1,102,724	1.00	17,520,340	-	-	-	-	-	1,102,724	1,102,724
Res & IE	Electric Homes New Construction	13.52	374,379	0.90	4,541,660	-	-	-	-	-	335,982	335,982
Res & IE	Behavior - Res/IE	10.00	-	-	291,987,668	-	-	-	-	-	82,444,452	60,088,959
Res & IE	ASI kWh Purchase**	20.00	877,947	0.90	15,115,464	-	-	-	-	-	791,055	791,055
Pilot	Industrial Energy Management Information Systems	5.00	1,686,744	0.80	6,746,976	-	-	-	-	-	1,349,395	1,349,395
Pilot	Heat Pump Water Heater Pilot	15.00	25,545	0.80	306,544	-	-	-	-	-	20,436	20,436
Market Transformation	ENERGY STAR Retail Products Platform	14.34	9,610,560	1.00	137,797,829	-	-	-	-	-	9,610,560	9,610,560
Voltage Optimization	Voltage Optimization	15.00	68,991,654	1.00	1,034,874,812	-	-	-	-	-	68,991,654	68,991,654
CY2023 Portfolio Total Electric Contribution to CPAS		-	11.61	1,427,837,880	0.93	15,077,447,533	-	-	-	-	1,406,752,002	1,384,289,923
Historic Portfolio Total Electric Contribution to CPAS§		-	-	-	-	1,765,460,187	3,230,285,186	4,840,365,070	6,105,105,588	7,517,032,298	7,303,100,045	6,825,438,867
Portfolio Total Electric CPAS		-	-	-	-	1,765,460,187	3,230,285,186	4,840,365,070	6,105,105,588	7,517,032,298	8,709,852,047	8,209,728,790
CY2023 Portfolio Incremental Expiring Electric Savings		-	-	-	-	-	-	-	-	-	-	22,462,079
Historic Portfolio Incremental Expiring Electric Savings#		-	-	-	-	-	-	-	-	154,012,907	213,932,253	477,661,178
Portfolio Grand Total Incremental Expiring Electric Savings*†		-	-	-	-	-	-	-	-	154,012,907	213,932,253	500,123,257

Sector	Program	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Business & Public Sector	Small Business	227,005,299	222,331,561	218,441,791	212,305,008	211,657,514	210,859,628	208,863,706	204,709,909	191,246,950	166,328,411	139,128,223	123,262,938	110,445,014
Business & Public Sector	Incentives	194,801,299	193,888,390	193,487,076	192,235,130	188,436,973	185,585,002	184,704,027	184,166,781	171,287,839	140,664,228	124,436,935	115,226,235	112,358,231
Business & Public Sector	Midstream/Upstream	115,799,317	115,799,317	111,209,102	107,002,847	107,002,847	107,002,847	107,002,847	106,985,737	101,990,010	92,991,451	87,889,362	87,889,362	73,946,371
Business & Public Sector	Targeted Systems	81,694,225	59,847,089	59,003,949	58,812,562	58,812,562	40,801,646	25,847,257	14,943,558	14,927,272	14,927,272	14,927,272	1,905,022	1,905,022
Business & Public Sector	Behavior Bus/Pub	41,221,956	41,221,956	41,221,956	41,221,956	41,221,956	-	-	-	-	-	-	-	-
Business & Public Sector	New Construction - Bus/Pub	10,442,324	10,442,324	10,442,324	10,442,324	10,442,324	10,442,324	10,442,324	10,442,324	10,442,324	10,442,324	10,442,324	10,442,324	10,442,324
Business & Public Sector	Assessments	1,623,600	1,160,538	912,916	-	-	-	-	-	-	-	-	-	-
Res & IE	Product Distribution	296,210,481	296,210,481	272,017,595	272,017,595	272,017,595	261,784,461	15,572,575	15,572,575	11,704,390	11,704,390	11,704,390	11,704,390	11,704,390
Res & IE	Retail/Online	194,699,589	194,699,589	182,070,893	181,801,416	180,269,439	157,112,839	79,594,424	71,991,799	61,620,532	52,284,613	49,329,556	49,324,634	47,859,226
Res & IE	Multifamily Upgrades	32,328,836	32,302,174	32,287,088	29,321,292	23,985,516	23,096,957	21,985,109	21,854,983	21,234,269	20,104,934	19,024,885	19,021,575	19,015,765
Res & IE	Contractor / Midstream Rebates	13,054,563	13,022,721	13,022,721	13,022,721	9,719,955	9,607,868	9,508,471	9,508,471	9,508,130	9,085,818	9,085,818	9,085,818	9,085,818
Res & IE	Single-Family Upgrades	11,822,138	11,670,539	11,613,452	11,509,718	11,355,371	10,341,553	4,848,066	4,845,892	3,747,161	2,895,604	2,885,584	2,882,491	2,859,199
Res & IE	New Construction - IE	1,102,724	1,102,724	1,102,724	1,102,724	1,102,724	1,102,724	1,102,724	1,098,219	1,089,997	1,057,469	1,055,617	1,050,444	857,532
Res & IE	Electric Homes New Construction	315,197	315,197	315,197	315,197	315,197	315,197	315,197	315,197	242,022	196,872	196,872	181,397	175,813
Res & IE	Behavior - Res/IE	43,916,492	31,626,513	23,273,815	17,054,219	12,646,902	9,255,602	6,732,685	4,948,028	-	-	-	-	-
Res & IE	ASI kWh Purchase**	791,055	791,055	791,055	791,055	791,055	791,055	791,055	791,055	720,492	720,492	720,492	720,492	720,492
Pilot	Industrial Energy Management Information Systems	1,349,395	1,349,395	1,349,395	-	-	-	-	-	-	-	-	-	-
Pilot	Heat Pump Water Heater Pilot	20,436	20,436	20,436	20,436	20,436	20,436	20,436	20,436	20,436	20,436	20,436	20,436	20,436
Market Transformation	ENERGY STAR Retail Products Platform	9,610,560	9,610,560	9,610,560	9,610,560	9,610,560	9,610,560	9,610,560	9,610,560	9,610,560	9,610,560	9,610,560	9,610,560	3,249,990
Voltage Optimization	Voltage Optimization	68,991,654	68,991,654	68,991,654	68,991,654	68,991,654	68,991,654	68,991,654	68,991,654	68,991,654	68,991,654	68,991,654	68,991,654	68,991,654
CY2023 Portfolio Total Electric Contribution to CPAS		1,346,801,139	1,306,404,211	1,251,185,698	1,227,578,414	1,208,400,579	1,106,722,353	755,933,117	730,797,179	678,384,038	602,026,529	549,449,979	511,319,772	473,637,278
Historic Portfolio Total Electric Contribution to CPAS§		6,396,196,860	5,993,007,134	5,690,100,784	5,111,782,419	4,709,828,826	4,105,275,854	3,518,360,090	2,923,946,720	2,440,679,767	1,875,009,291	1,306,762,404	682,632,733	224,307,189
Portfolio Total Electric CPAS		7,742,997,999	7,299,411,345	6,941,286,481	6,339,360,833	5,918,229,404	5,211,998,207	4,274,293,207	3,654,743,899	3,119,063,805	2,477,035,820	1,856,212,384	1,193,952,505	697,944,467
CY2023 Portfolio Incremental Expiring Electric Savings		37,488,784	40,396,928	55,218,513	23,607,284	19,177,835	101,678,226	350,789,236	25,135,937	52,413,141	76,357,510	52,576,549	38,130,207	37,682,494



Sector	Program	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Historic Portfolio Incremental Expiring Electric Savings#	-	429,242,007	403,189,726	302,906,350	578,318,364	401,953,594	604,552,972	586,915,763	594,413,371	483,266,953	565,670,475	568,246,887	624,129,671	458,325,544
Portfolio Grand Total Incremental Expiring Electric Savings*†	-	466,730,791	443,586,654	358,124,864	601,925,648	421,131,429	706,231,198	937,705,000	619,549,308	535,680,094	642,027,985	620,823,436	662,259,878	496,008,039

Sector	Program	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050
Business & Public Sector	Small Business	873	873	873	873	873	873	873	873	873	873	-	-	-
Business & Public Sector	Incentives	22,101,155	22,093,866	21,822,332	21,045,322	21,045,322	12,717,577	11,419,401	11,419,401	595,609	315,657	-	-	-
Business & Public Sector	Midstream/Upstream	53,059	53,059	53,059	53,059	23,897	-	-	-	-	-	-	-	-
Business & Public Sector	Targeted Systems	664,552	664,552	664,552	664,552	664,552	664,552	664,552	664,552	-	-	-	-	-
Business & Public Sector	Behavior Bus/Pub	-	-	-	-	-	-	-	-	-	-	-	-	-
Business & Public Sector	New Construction - Bus/Pub	10,442,324	10,442,324	4,176,930	-	-	-	-	-	-	-	-	-	-
Business & Public Sector	Assessments	-	-	-	-	-	-	-	-	-	-	-	-	-
Res & IE	Product Distribution	11,704,390	11,704,390	11,704,390	11,704,390	11,704,390	-	-	-	-	-	-	-	-
Res & IE	Retail/Online	46,771,170	46,550,342	46,550,342	46,549,345	46,006,288	-	-	-	-	-	-	-	-
Res & IE	Multifamily Upgrades	9,597,491	8,882,855	8,881,754	8,881,754	8,881,754	24,739	24,739	24,739	-	-	-	-	-
Res & IE	Contractor / Midstream Rebates	7,123,776	573,268	573,268	85,019	85,019	69,298	69,298	69,298	69,298	69,298	-	-	-
Res & IE	Single-Family Upgrades	2,740,382	2,548,109	2,548,109	2,402,578	2,047,137	255	-	-	-	-	-	-	-
Res & IE	New Construction - IE	286,698	279,343	279,343	279,343	261,823	0.00	-	-	-	-	-	-	-
Res & IE	Electric Homes New Construction	108,685	65,496	65,496	65,496	49,973	-	-	-	-	-	-	-	-
Res & IE	Behavior - Res/IE	-	-	-	-	-	-	-	-	-	-	-	-	-
Res & IE	ASI kWh Purchase**	720,492	720,492	720,492	720,492	720,492	-	-	-	-	-	-	-	-
Pilot	Industrial Energy Management Information Systems	-	-	-	-	-	-	-	-	-	-	-	-	-
Pilot	Heat Pump Water Heater Pilot	-	-	-	-	-	-	-	-	-	-	-	-	-
Market Transformation	ENERGY STAR Retail Products Platform	-	-	-	-	-	-	-	-	-	-	-	-	-
Voltage Optimization	Voltage Optimization	-	-	-	-	-	-	-	-	-	-	-	-	-
CY2023 Portfolio Total Electric Contribution to CPAS	-	112,315,047	104,578,969	98,040,939	92,452,222	91,491,519	13,477,294	12,178,863	12,178,863	665,780	385,828	-	-	-
Historic Portfolio Total Electric Contribution to CPAS§	-	181,410,735	157,969,480	143,317,622	77,504,230	34,267,219	21,135,794	14,225,612	3,870,155	2,043,637	443,970	443,970	443,970	443,970
Portfolio Total Electric CPAS	-	293,725,783	262,548,449	241,358,561	169,956,452	125,758,738	34,613,087	26,404,475	16,049,018	2,709,417	829,798	443,970	443,970	443,970
CY2023 Portfolio Incremental Expiring Electric Savings	-	361,322,230	7,736,079	6,538,030	5,588,717	960,703	78,014,225	1,298,431	-	11,513,083	279,952	385,828	-	-
Historic Portfolio Incremental Expiring Electric Savings#	-	42,896,454	23,441,255	14,651,858	65,813,392	43,237,011	13,131,425	6,910,182	10,355,457	1,826,518	1,599,667	-	-	-
Portfolio Grand Total Incremental Expiring Electric Savings*†	-	404,218,684	31,177,334	21,189,888	71,402,109	44,197,714	91,145,650	8,208,612	10,355,457	13,339,601	1,879,619	385,828	-	-

Note: This table is Electric Energy Savings - Direct which includes primary kWh savings from efficient measures (includes efficiency savings from electrification measures but excludes the electrification savings), secondary kWh savings from wastewater treatment, carryover savings, and electric heating penalties.

\* WAML is the weighted average measure life across all measures and savings in the program.

† The program-level NTG values shown are calculated as Verified Net/Verified Gross. The program-level analysis typically used measure-level deemed NTG values, which are listed here: <https://www.ilsag.info/evaluator-ntg-recommendations-for-2023>.

‡ Lifetime savings are the sum of CPAS savings through the EUL.

§ Historical savings go back to CY2018.

|| Incremental expiring savings are equal to CPAS Yn-1 - CPAS Yn.

# Historic incremental expiring savings are equal to Historic CPAS Yn-1 – Historic CPAS Yn.

\*† Portfolio total incremental expiring savings are equal to current year total incremental expiring savings plus historic total incremental expiring savings.

\*\*The ASI kWh Purchase is not included as a program, but the savings are counted in this table as part of the residential sector kWh savings.

Source: Evaluation team analysis

Table 2-4: CPAS by Program – Other Fuel

Sector	Program	WAML	CY2023 Verified Gross Savings (Therms)	NTG*	Lifetime Net Savings	2018	2019	2020	2021	2022	2023
Business & Public Sector	Incentives	14.84	1,220,694	0.89	16,119,666	-	-	-	-	-	1,086,528
Business & Public Sector	Small Business	9.30	288,936	0.99	2,665,304	-	-	-	-	-	286,027
Business & Public Sector	Targeted Systems	9.64	73,276	0.95	612,083	-	-	-	-	-	69,921
Business & Public Sector	New Construction - Bus/Pub	17.40	10,963	0.43	82,022	-	-	-	-	-	4,714
Business & Public Sector	Assessments	4.91	2,223	0.94	10,268	-	-	-	-	-	2,090
Business & Public Sector	Behavior Bus/Pub	-	-	-	-	-	-	-	-	-	-
Business & Public Sector	Midstream/Upstream	-	-	-	-	-	-	-	-	-	-
Res & IE	Retail/Online	18.45	11,747,740	0.88	190,331,168	-	-	-	-	-	10,352,446
Res & IE	Single-Family Upgrades	19.03	1,495,081	1.00	26,450,820	-	-	-	-	-	1,490,289
Res & IE	Multifamily Upgrades	16.11	697,318	1.00	11,229,187	-	-	-	-	-	697,318
Res & IE	Product Distribution	15.78	356,734	1.00	5,627,590	-	-	-	-	-	356,734
Res & IE	Contractor / Midstream Rebates	11.50	111,744	0.91	1,166,257	-	-	-	-	-	101,518
Res & IE	New Construction - IE	16.75	36,728	1.00	615,316	-	-	-	-	-	36,728
Res & IE	Behavior - Res/IE	-	-	-	-	-	-	-	-	-	-
Res & IE	Electric Homes New Construction	-	-	-	-	-	-	-	-	-	-
Res & IE	ASI kWh Purchase**	-	-	-	-	-	-	-	-	-	-
Pilot	Industrial Energy Management Information Systems	-	-	-	-	-	-	-	-	-	-
Pilot	Heat Pump Water Heater Pilot	15.00	-22	0.80	-258	-	-	-	-	-	-17
Market Transformation	ENERGY STAR Retail Products Platform	14.00	148,475	1.00	2,078,650	-	-	-	-	-	148,475
Voltage Optimization	Voltage Optimization	-	-	-	-	-	-	-	-	-	-
CY2023 Portfolio Total Other Fuel Contribution to CPAS (Therms)		-	16,189,892	0.90	256,988,073	-	-	-	-	-	14,632,771
CY2023 Portfolio Total Other Fuel Contribution to CPAS (kWh Equivalent)‡		-	474,525,737	0.90	7,532,320,411	-	-	-	-	-	428,886,515
Historic Portfolio Total Other Fuel Contribution to CPAS (kWh Equivalent)§		-	-	-	-	216,877,650	387,368,187	664,862,938	988,871,000	1,280,616,071	1,271,903,266
Portfolio Total Other Fuel CPAS (kWh Equivalent)		-	-	-	-	216,877,650	387,368,187	664,862,938	988,871,000	1,280,616,071	1,700,789,781
CY2023 Portfolio Incremental Expiring Other Fuel Savings (Therms)		-	-	-	-	-	-	-	-	-	-
CY2023 Portfolio Incremental Expiring Other Fuel Savings (kWh Equivalent)		-	-	-	-	-	-	-	-	-	-
Historic Portfolio Incremental Expiring Other Fuel Savings (kWh Equivalent)#		-	-	-	-	-	-	-	-	294,861,028	293,331,683
Portfolio Total Incremental Expiring Other Fuel Savings (kWh Equivalent)*†		-	-	-	-	-	-	-	-	-	-

Sector	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Business & Public Sector	1,086,528	1,086,528	1,086,528	1,086,528	1,083,020	1,083,020	1,083,020	1,083,020	1,083,020	1,058,123	1,053,451	1,053,451
Business & Public Sector	286,027	286,027	286,027	286,027	239,537	239,537	239,537	239,487	232,388	42,560	152	152
Business & Public Sector	69,921	69,921	69,921	62,630	62,630	62,630	62,630	41,605	10,069	10,069	10,069	10,069
Business & Public Sector	4,714	4,714	4,714	4,714	4,714	4,714	4,714	4,714	4,714	4,714	4,714	4,714
Business & Public Sector	2,090	2,090	2,090	1,908	-	-	-	-	-	-	-	-
Business & Public Sector	-	-	-	-	-	-	-	-	-	-	-	-
Business & Public Sector	-	-	-	-	-	-	-	-	-	-	-	-
Res & IE	10,352,446	10,352,446	10,352,446	10,352,446	10,352,446	10,352,446	10,352,446	10,352,446	10,352,446	10,013,400	8,559,802	8,559,802
Res & IE	1,490,289	1,490,289	1,464,241	1,463,743	1,443,543	1,429,837	1,429,837	1,428,071	1,427,467	1,278,714	1,206,004	1,205,972
Res & IE	697,318	694,645	669,816	669,816	668,754	612,594	612,594	612,594	612,594	602,338	549,368	549,368
Res & IE	356,734	338,329	338,329	338,329	338,329	338,329	338,329	338,329	338,329	220,749	220,749	220,749
Res & IE	101,518	101,518	101,518	101,518	101,518	101,518	101,518	101,518	101,518	101,518	5,506	5,506
Res & IE	36,728	36,728	36,728	36,728	36,728	36,728	36,728	36,728	36,728	31,644	25,809	25,809
Res & IE	-	-	-	-	-	-	-	-	-	-	-	-
Res & IE	-	-	-	-	-	-	-	-	-	-	-	-
Res & IE	-	-	-	-	-	-	-	-	-	-	-	-
Pilot	-	-	-	-	-	-	-	-	-	-	-	-
Pilot	-17	-17	-17	-17	-17	-17	-17	-17	-17	-17	-17	-17
Market Transformation	148,475	148,475	148,475	148,475	148,475	148,475	148,475	148,475	148,475	148,475	148,475	148,475
Voltage Optimization	-	-	-	-	-	-	-	-	-	-	-	-
CY2023 Portfolio Total Other Fuel Contribution to CPAS (Therms)	14,632,772	14,611,694	14,560,816	14,552,844	14,479,677	14,409,811	14,409,811	14,386,970	14,347,731	13,512,286	11,784,081	11,784,049
CY2023 Portfolio Total Other Fuel Contribution to CPAS (kWh Equivalent)‡	428,886,538	428,268,739	426,777,518	426,543,851	424,399,322	422,351,551	422,351,551	421,682,085	420,531,999	396,045,103	345,391,410	345,390,482
Historic Portfolio Total Other Fuel Contribution to CPAS (kWh Equivalent)§	1,261,976,247	1,246,645,817	1,238,289,821	1,230,888,455	1,138,573,086	1,103,651,799	947,618,793	813,807,358	600,686,837	424,780,996	398,573,013	272,059,601
Portfolio Total Other Fuel CPAS (kWh Equivalent)	1,690,862,785	1,674,914,556	1,665,067,339	1,657,432,306	1,562,972,408	1,526,003,350	1,369,970,344	1,235,489,443	1,021,218,836	820,826,099	743,964,423	617,450,083
CY2023 Portfolio Incremental Expiring Other Fuel Savings (Therms)	-1	21,078	50,878	7,972	73,167	69,866	-	22,841	39,239	835,445	1,728,205	31,644
CY2023 Portfolio Incremental Expiring Other Fuel Savings (kWh Equivalent)	-23	617,799	1,491,220	233,667	2,144,529	2,047,771	-	669,466	1,150,085	24,486,897	50,653,693	927
Historic Portfolio Incremental Expiring Other Fuel Savings (kWh Equivalent)#	289,754,867	286,261,507	286,061,351	284,134,984	275,053,939	275,015,497	272,670,725	268,910,211	232,558,839	119,880,683	116,958,361	115,533,664
Portfolio Total Incremental Expiring Other Fuel Savings (kWh Equivalent)*†	289,754,844	286,879,306	287,552,571	284,368,651	277,198,468	277,063,268	-	269,579,677	233,708,924	144,367,580	167,612,054	115,534,591



Sector	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
Business & Public Sector	1,053,451	1,053,451	-	-	-	-	-	-	-	-	-	-
Business & Public Sector	152	152	152	152	152	152	152	152	152	152	152	152
Business & Public Sector	-	-	-	-	-	-	-	-	-	-	-	-
Business & Public Sector	4,714	4,714	4,714	4,714	1,886	-	-	-	-	-	-	-
Business & Public Sector	-	-	-	-	-	-	-	-	-	-	-	-
Business & Public Sector	-	-	-	-	-	-	-	-	-	-	-	-
Business & Public Sector	-	-	-	-	-	-	-	-	-	-	-	-
Res & IE	8,556,188	8,519,592	8,519,741	8,519,547	8,519,547	8,519,547	8,519,547	-	-	-	-	-
Res & IE	1,187,102	1,187,102	1,166,629	1,158,773	1,158,773	1,158,773	1,158,773	5,319	5,319	5,319	5,319	5,319
Res & IE	548,999	548,999	356,444	341,990	341,990	341,990	341,990	31,534	31,534	31,534	31,534	31,534
Res & IE	220,749	220,749	220,749	220,749	220,749	220,749	220,749	-	-	-	-	-
Res & IE	5,506	5,506	5,506	5,506	5,506	5,506	5,506	-	-	-	-	-
Res & IE	25,809	25,068	21,984	21,984	21,984	21,984	21,984	3,977	-	-	-	-
Res & IE	-	-	-	-	-	-	-	-	-	-	-	-
Res & IE	-	-	-	-	-	-	-	-	-	-	-	-
Res & IE	-	-	-	-	-	-	-	-	-	-	-	-
Pilot	-	-	-	-	-	-	-	-	-	-	-	-
Pilot	-17	-17	-	-	-	-	-	-	-	-	-	-
Market Transformation	148,475	-	-	-	-	-	-	-	-	-	-	-
Voltage Optimization	-	-	-	-	-	-	-	-	-	-	-	-
CY2023 Portfolio Total Other Fuel Contribution to CPAS (Therms)	11,751,127	11,565,315	10,295,918	10,273,415	10,270,586	10,268,701	10,268,701	40,981	37,005	37,005	37,005	37,005
CY2023 Portfolio Total Other Fuel Contribution to CPAS (kWh Equivalent)†	344,425,534	338,979,380	301,773,361	301,113,786	301,030,887	300,975,621	300,975,621	1,201,157	1,084,602	1,084,602	1,084,602	1,084,602
Historic Portfolio Total Other Fuel Contribution to CPAS (kWh Equivalent)§	200,499,985	149,379,526	142,860,919	128,948,812	118,480,252	80,248,155	16,830,180	10,414,490	7,403,955	4,489,652	205,045	-
Portfolio Total Other Fuel CPAS (kWh Equivalent)	544,925,519	488,358,906	444,634,280	430,062,598	419,511,139	381,223,776	317,805,801	11,615,647	8,488,557	5,574,254	1,289,647	1,084,602
CY2023 Portfolio Incremental Expiring Other Fuel Savings (Therms)	32,922	185,812	1,269,397	22,503	2,828	1,886	-	10,227,720	3,977	-	-	-
CY2023 Portfolio Incremental Expiring Other Fuel Savings (kWh Equivalent)	964,949	5,446,154	37,206,020	659,575	82,899	55,266	-	299,774,464	116,554	-	-	-
Historic Portfolio Incremental Expiring Other Fuel Savings (kWh Equivalent)#	114,645,980	65,076,482	63,785,290	63,714,533	63,667,362	63,479,246	319,622	234,078	205,045	205,045	205,045	-
Portfolio Total Incremental Expiring Other Fuel Savings (kWh Equivalent)*†	115,610,929	70,522,636	100,991,310	64,374,108	63,750,261	63,534,512	-	300,008,542	321,599	-	-	-

\* The program-level NTG values shown are calculated as Verified Net/Verified Gross. The program-level analysis typically used measure-level deemed NTG values, which are listed here: <https://www.ilsag.info/evaluator-ntg-recommendations-for-2023>.

† Lifetime savings are the sum of CPAS savings through the EUL.

‡ kWh equivalent savings are calculated by multiplying therm savings by 29.31.

§ Historic savings go back to CY2018.

|| Incremental expiring savings are equal to CPAS Yn-1 - CPAS Yn.

# Historic incremental expiring savings are equal to Historic CPAS Yn-1 – Historic CPAS Yn.

\*† kWh equivalent portfolio total incremental savings are calculated by multiplying therm savings by 29.31.

\*\*The ASI kWh Purchase is not included as a program, but the savings are counted in this table as part of the residential sector kWh savings.

Source: Evaluation team analysis

**Table 2-5: CPAS from Other Fuel Counting Toward ComEd Goal**

Sector	CY2023 Verified Gross Savings (Therms)	Lifetime Net Savings*	2018	2019	2020	2021	2022	2023	2024	2025	2026
Income Eligible Gas (Therms)	5,277,551	95,262,671	-	-	-	-	-	5,277,551	5,277,552	5,277,552	5,277,552
Income Eligible Gas (kWh Equivalent)	154,685,034	2,792,148,877	-	-	-	-	-	154,685,034	154,685,045	154,685,045	154,685,045
CY2023 Portfolio Total Other Fuel Contribution to CPAS (Therms)	5,277,551	95,262,671	-	-	-	-	-	5,277,551	5,277,552	5,277,552	5,277,552
CY2023 Portfolio Total Other Fuel Contribution to CPAS (kWh Equivalent)†	154,685,034	2,792,148,877	-	-	-	-	-	154,685,034	154,685,045	154,685,045	154,685,045
Historic Portfolio Total Other Fuel Contribution to CPAS (kWh Equivalent Counted)§	-	-	94,320,888	196,501,850	298,671,854	408,567,718	553,817,801	552,424,034	545,834,549	534,948,763	534,462,723
Portfolio Total Other Fuel CPAS (kWh Equivalent)†§	-	-	94,320,888	196,501,850	298,671,854	408,567,718	553,817,801	707,109,068	700,519,594	689,633,808	689,147,768
CY2023 Portfolio Incremental Expiring Other Fuel Savings (Therms)	-	-	-	-	-	-	-	-	0	-	-
CY2023 Portfolio Incremental Expiring Other Fuel Savings (kWh Equivalent)†	-	-	-	-	-	-	-	-	-11	-	-
Historic Portfolio Incremental Expiring Other Fuel Savings (kWh Equivalent Counted)†§	-	-	-	-	-	-	146,091	519,109	3,579,608	7,392,427	488,414
Portfolio Total Incremental Expiring Other Fuel Savings (kWh Equivalent)†	-	-	-	-	-	-	146,091	519,109	3,579,597	7,392,427	488,414

Sector	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Income Eligible Gas (Therms)	5,277,053	5,264,001	5,197,573	5,197,573	5,195,807	5,195,204	4,852,559	4,340,647	4,340,618	4,321,387	4,319,856	4,108,013
Income Eligible Gas (kWh Equivalent)	154,670,430	154,287,856	152,340,877	152,340,877	152,289,098	152,271,418	142,228,516	127,224,363	127,223,520	126,659,843	126,614,981	120,405,853
CY2023 Portfolio Total Other Fuel Contribution to CPAS (Therms)	5,277,053	5,264,001	5,197,573	5,197,573	5,195,807	5,195,204	4,852,559	4,340,647	4,340,618	4,321,387	4,319,856	4,108,013
CY2023 Portfolio Total Other Fuel Contribution to CPAS (kWh Equivalent)†	154,670,430	154,287,856	152,340,877	152,340,877	152,289,098	152,271,418	142,228,516	127,224,363	127,223,520	126,659,843	126,614,981	120,405,853
Historic Portfolio Total Other Fuel Contribution to CPAS (kWh Equivalent Counted)§	531,006,187	507,986,347	491,448,372	436,523,272	417,800,645	397,137,524	293,905,493	270,207,140	199,789,089	152,144,512	141,101,914	135,477,125
Portfolio Total Other Fuel CPAS (kWh Equivalent)†§	685,676,617	662,274,203	643,789,249	588,864,149	570,089,743	549,408,942	436,134,009	397,431,503	327,012,609	278,804,355	267,716,895	255,882,978
CY2023 Portfolio Incremental Expiring Other Fuel Savings (Therms)	499	13,053	66,427	-	1,767	603	342,644	511,912	28.77	19,232	1,531	211,843
CY2023 Portfolio Incremental Expiring Other Fuel Savings (kWh Equivalent)†	14,615	382,574	1,946,979	-	51,780	17,679	10,042,902	15,004,153	843	563,677	44,862	6,209,127
Historic Portfolio Incremental Expiring Other Fuel Savings (kWh Equivalent Counted)†§	2,396,794	13,944,822	16,543,226	54,830,949	18,272,508	3,760,456	62,747,883	21,195,470	69,256,379	47,639,575	1,550,961	5,227,415
Portfolio Total Incremental Expiring Other Fuel Savings (kWh Equivalent)†	2,411,409	14,327,396	18,490,205	54,830,949	18,324,288	3,778,136	72,790,785	36,199,623	69,257,223	48,203,252	1,595,824	11,436,542

Sector	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050
Income Eligible Gas (Therms)	4,088,483	4,088,483	4,088,483	4,088,483	40,830	36,853	36,853	36,853	36,853	-	-	-
Income Eligible Gas (kWh Equivalent)	119,833,434	119,833,434	119,833,434	119,833,434	1,196,713	1,080,159	1,080,159	1,080,159	1,080,159	-	-	-
CY2023 Portfolio Total Other Fuel Contribution to CPAS (Therms)	4,088,483	4,088,483	4,088,483	4,088,483	40,830	36,853	36,853	36,853	36,853	-	-	-
CY2023 Portfolio Total Other Fuel Contribution to CPAS (kWh Equivalent)†	119,833,434	119,833,434	119,833,434	119,833,434	1,196,713	1,080,159	1,080,159	1,080,159	1,080,159	-	-	-
Historic Portfolio Total Other Fuel Contribution to CPAS (kWh Equivalent Counted)§	121,635,775	111,214,385	72,982,288	16,830,180	10,414,490	7,403,954	4,489,652	205,045	-	-	-	-
Portfolio Total Other Fuel CPAS (kWh Equivalent)†§	241,469,209	231,047,819	192,815,722	136,663,614	11,611,203	8,484,113	5,569,811	1,285,204	1,080,159	-	-	-
CY2023 Portfolio Incremental Expiring Other Fuel Savings (Therms)	19,530	-	-	-	4,047,653	3,977	-	-	-	36,853	-	-
CY2023 Portfolio Incremental Expiring Other Fuel Savings (kWh Equivalent)†	572,419	-	-	-	118,636,721	116,554	-	-	-	1,080,159	-	-
Historic Portfolio Incremental Expiring Other Fuel Savings (kWh Equivalent Counted)†§	13,841,350	10,421,390	38,043,981	258,351	6,330,146	2,981,502	2,914,303	4,284,607	-	-	-	-
Portfolio Total Incremental Expiring Other Fuel Savings (kWh Equivalent)†	14,413,769	10,421,390	38,043,981	258,351	124,966,867	3,098,056	2,914,303	4,284,607	-	1,080,159	-	-

\* Lifetime savings are the sum of CPAS savings through the EUL.

† kWh equivalent savings are calculated by multiplying therm savings by 29.31.

‡ Historic savings go back to CY2018.

§ Portfolio Total Other Fuel CPAS (kWh Equivalent) is the sum of CY2023 equivalent kWh CPAS and historic equivalent kWh CPAS.

|| Incremental expiring savings are equal to CPAS Yn-1 - CPAS Yn.

# Portfolio Total Incremental Expiring Other Fuel Savings (kWh Equivalent) is the sum of CY2023 portfolio incremental equivalent kWh counted and historic portfolio incremental expiring equivalent kWh savings counted.

Source: Evaluation team analysis



Sector	Program	WAML*	CY2023 Verified Gross Savings (kWh)	NTG†	Lifetime Net Savings (kWh)‡	2018	2019	2020	2021	2022	2023
Portfolio Total Electrification CPAS	-	-	-	-	-	-	-	-	-	12,406,329	52,328,731
CY2023 Portfolio Incremental Expiring Electrification Savings	-	-	-	-	-	-	-	-	-	-	-
Historic Portfolio Incremental Expiring Electrification Savings#	-	-	-	-	-	-	-	-	-	-	-
Portfolio Grand Total Incremental Expiring Electrification Savings*†	-	-	-	-	-	-	-	-	-	-	-

Sector	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Business & Public Sector	5,876,429	5,876,429	5,876,429	5,876,429	5,876,429	5,876,429	5,876,429	5,876,429	5,876,429	5,876,429	5,876,429	5,876,429
Business & Public Sector	54,667	54,667	54,667	54,667	54,667	54,667	54,667	54,667	54,667	54,667	54,667	54,667
Market Rate (Residential)	17,508,991	17,508,991	17,508,991	17,508,991	17,508,991	17,508,991	16,324,864	15,274,789	15,274,789	15,274,789	15,274,789	15,274,789
Market Rate (Residential)	1,124,379	1,124,379	1,124,379	1,124,379	1,124,379	1,124,379	1,124,379	1,124,379	1,124,379	1,124,379	1,124,379	1,124,379
Market Rate (Residential)	31,214	31,214	31,214	31,214	31,214	31,214	31,214	31,214	31,214	31,214	31,214	31,214
Income Eligible	9,184,682	9,184,682	9,184,682	9,184,682	9,184,682	9,184,682	8,573,782	8,032,040	8,032,040	8,032,040	8,032,040	8,032,040
Income Eligible	2,193,550	2,193,550	2,193,550	2,193,550	2,193,550	2,193,550	2,193,550	2,193,550	2,193,550	2,193,550	2,193,550	2,193,550
Income Eligible	1,933,079	1,933,079	1,933,079	1,933,079	1,933,079	1,933,079	1,933,079	1,933,079	1,933,079	1,933,079	1,933,079	1,933,079
Income Eligible	1,920,629	1,920,629	1,920,629	1,920,629	1,920,629	1,920,629	1,920,629	1,920,629	1,920,629	1,920,629	1,920,629	1,920,629
Income Eligible	4,098	4,098	4,098	4,098	4,098	4,098	4,098	4,098	4,098	4,098	4,098	4,098
Pilot	90,682	90,682	90,682	90,682	90,682	90,682	90,682	90,682	90,682	90,682	90,682	90,682
CY2023 Portfolio Total Electrification Contribution to CPAS	39,922,402	39,922,402	39,922,402	39,922,402	39,922,402	39,922,402	38,127,374	36,535,557	36,535,557	36,535,557	36,535,557	36,535,557
Historic Portfolio Total Electrification Contribution to CPAS§	12,406,329	12,406,329	12,406,329	12,406,329	12,327,183	11,854,007	11,434,399	11,434,399	11,434,399	11,434,399	11,434,399	10,038,499
Portfolio Total Electrification CPAS	52,328,731	52,328,731	52,328,731	52,328,731	52,249,584	51,776,409	49,561,773	47,969,956	47,969,956	47,969,956	47,969,956	46,574,056
CY2023 Portfolio Incremental Expiring Electrification Savings	-	-	-	-	-	-	1,795,028	1,591,817	-	-	-	-
Historic Portfolio Incremental Expiring Electrification Savings#	-	-	-	-	79,147	473,175	419,608	-	-	-	-	1,395,900
Portfolio Grand Total Incremental Expiring Electrification Savings*†	-	-	-	-	79,147	473,175	2,214,636	1,591,817	-	-	-	1,395,900

Sector	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
Business & Public Sector	5,876,429	5,876,429	-	-	-	-	-	-	-	-	-	-
Business & Public Sector	54,667	54,667	54,667	-	-	-	-	-	-	-	-	-
Market Rate (Residential)	15,274,789	15,274,789	11,652,504	105,647	105,647	105,647	105,647	105,647	105,647	105,647	105,647	105,647
Market Rate (Residential)	1,124,379	1,124,379	752,332	-	-	-	-	-	-	-	-	-
Market Rate (Residential)	31,214	31,214	31,214	-	-	-	-	-	-	-	-	-
Income Eligible	8,032,040	8,032,040	5,681,664	51,756	51,756	51,756	51,756	51,756	51,756	51,756	51,756	51,756
Income Eligible	2,185,804	2,185,804	1,740,189	-	-	-	-	-	-	-	-	-
Income Eligible	1,003,109	7,991	7,991	-	-	-	-	-	-	-	-	-
Income Eligible	1,920,629	1,920,629	1,892,232	-	-	-	-	-	-	-	-	-
Income Eligible	4,098	4,098	4,098	-	-	-	-	-	-	-	-	-
Pilot	90,682	90,682	-	-	-	-	-	-	-	-	-	-
CY2023 Portfolio Total Electrification Contribution to CPAS	35,597,841	34,602,724	21,816,891	157,403	157,403	157,403	157,403	157,403	157,403	157,403	157,403	157,403
Historic Portfolio Total Electrification Contribution to CPAS§	7,873,369	4,981,062	124,965	124,965	124,965	124,965	124,965	124,965	124,965	124,965	124,965	-
Portfolio Total Electrification CPAS	43,471,211	39,583,786	21,941,856	282,368	282,368	282,368	282,368	282,368	282,368	282,368	282,368	157,403
CY2023 Portfolio Incremental Expiring Electrification Savings	937,716	995,118	12,785,833	21,659,488	-	-	-	-	-	-	-	-
Historic Portfolio Incremental Expiring Electrification Savings#	2,165,129	2,892,307	4,856,097	-	-	-	-	-	-	-	-	124,965
Portfolio Grand Total Incremental Expiring Electrification Savings*†	3,102,845	3,887,425	17,641,930	21,659,488	-	-	-	-	-	-	-	124,965

\* WAML is the weighted average measure life across all measures and electrification savings in the program.

† The program-level NTG values shown are calculated as Verified Net/Verified Gross. The program-level analysis typically used measure-level deemed NTG values, which are listed here: <https://www.ilsag.info/evaluator-ntg-recommendations-for-2023>.

‡ Lifetime savings are the sum of CPAS savings through the EUL.

§ Historical electrification savings go back to CY2018.

|| Incremental expiring savings are equal to CPAS Yn-1 - CPAS Yn.

# Historic incremental expiring electrification savings are equal to Historic CPAS Yn-1 – Historic CPAS Yn.

\*† Portfolio total incremental expiring savings are equal to current year total incremental expiring savings plus historic total incremental expiring savings.

Source: Evaluation team analysis

**Table 2-8: CPAS from Electrification Counting Toward ComEd Goal-IE vs Non-IE**

Sector	CY2023 Verified Gross Savings (kWh)	Lifetime Net Savings (kWh)	2018	2019	2020	2021	2022	2023	2024	2025	2026
Income Eligible Electrification	17,079,739	226,782,619	-	-	-	-	-	15,236,039	15,236,039	15,236,039	15,236,039
All Other Electrification	29,919,752	366,913,434	-	-	-	-	-	24,686,362	24,686,362	24,686,362	24,686,362
CY2023 Portfolio Total Electrification Contribution to CPAS	46,999,491	593,696,053	-	-	-	-	-	39,922,402	39,922,402	39,922,402	39,922,402
Historic Portfolio Total Electrification Contribution to CPAS§	-	-	-	-	-	-	12,406,329	12,406,329	12,406,329	12,406,329	12,406,329
Portfolio Total Electrification CPAS	-	-	-	-	-	-	12,406,329	52,328,731	52,328,731	52,328,731	52,328,731
CY2023 Portfolio Incremental Expiring Electrification Savings	-	-	-	-	-	-	-	-	-	-	-
Historic Portfolio Incremental Expiring Electrification Savings#	-	-	-	-	-	-	-	-	-	-	-
Portfolio Grand Total Incremental Expiring Electrification Savings*†	-	-	-	-	-	-	-	-	-	-	-

Sector	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Income Eligible Electrification	15,236,039	15,236,039	15,236,039	14,625,139	14,083,397	14,083,397	14,083,397	14,083,397	14,083,397	13,145,681	12,150,563	9,326,175
All Other Electrification	24,686,362	24,686,362	24,686,362	23,502,235	22,452,160	22,452,160	22,452,160	22,452,160	22,452,160	22,452,160	22,452,160	12,490,716
CY2023 Portfolio Total Electrification Contribution to CPAS	39,922,402	39,922,402	39,922,402	38,127,374	36,535,557	36,535,557	36,535,557	36,535,557	36,535,557	35,597,841	34,602,724	21,816,891
Historic Portfolio Total Electrification Contribution to CPAS§	12,406,329	12,327,183	11,854,007	11,434,399	11,434,399	11,434,399	11,434,399	11,434,399	10,038,499	7,873,369	4,981,062	124,965
Portfolio Total Electrification CPAS	52,328,731	52,249,584	51,776,409	49,561,773	47,969,956	47,969,956	47,969,956	47,969,956	46,574,056	43,471,211	39,583,786	21,941,856
CY2023 Portfolio Incremental Expiring Electrification Savings	-	-	-	1,795,028	1,591,817	-	-	-	-	937,716	995,118	12,785,833
Historic Portfolio Incremental Expiring Electrification Savings#	-	79,147	473,175	419,608	-	-	-	-	1,395,900	2,165,129	2,892,307	4,856,097
Portfolio Grand Total Incremental Expiring Electrification Savings*†	-	79,147	473,175	2,214,636	1,591,817	-	-	-	1,395,900	3,102,845	3,887,425	17,641,930

Sector	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050
Income Eligible Electrification	51,756	51,756	51,756	51,756	51,756	51,756	51,756	51,756	51,756	-	-	-
All Other Electrification	105,647	105,647	105,647	105,647	105,647	105,647	105,647	105,647	105,647	-	-	-
CY2023 Portfolio Total Electrification Contribution to CPAS	157,403	157,403	157,403	157,403	157,403	157,403	157,403	157,403	157,403	-	-	-
Historic Portfolio Total Electrification Contribution to CPAS§	124,965	124,965	124,965	124,965	124,965	124,965	124,965	124,965	-	-	-	-
Portfolio Total Electrification CPAS	282,368	282,368	282,368	282,368	282,368	282,368	282,368	282,368	157,403	-	-	-
CY2023 Portfolio Incremental Expiring Electrification Savings	21,659,488	-	-	-	-	-	-	-	-	157,403	-	-
Historic Portfolio Incremental Expiring Electrification Savings#	-	-	-	-	-	-	-	-	124,965	-	-	-
Portfolio Grand Total Incremental Expiring Electrification Savings*†	-	-	-	-	-	-	-	-	124,965	-	-	-

\* WAML is the weighted average measure life across all measures and electrification savings in the program.

† The program-level NTG values shown are calculated as Verified Net/Verified Gross. The program-level analysis typically used measure-level deemed NTG values, which are listed here: <https://www.ilsag.info/evaluator-ntg-recommendations-for-2023>.

‡ Lifetime savings are the sum of CPAS savings through the EUL.

§ Historical electrification savings go back to CY2018.

|| Incremental expiring savings are equal to CPAS Yn-1 - CPAS Yn.

# Historic incremental expiring electrification savings are equal to Historic CPAS Yn-1 – Historic CPAS Yn.

\*† Portfolio total incremental expiring savings are equal to current year total incremental expiring savings plus historic total incremental expiring savings.

Source: Evaluation team analysis

Below is the list of programs and measures with electrification savings which were counted towards ComEd CPAS goal.

**Table 2-9: Measure List and Savings from Electrification Counting Toward ComEd Goal**

Program	Component	IE	End Use Type	Savings Category	Quantity	Increase in Electricity Consumption (kWh)	Average Increase in Electricity Consumption (kWh)	Decrease in Gas Consumption (therms)	Average Decrease in Gas Consumption (therms)	Decrease in Gas Consumption (kWh)	Net Change in Electricity Consumption (kWh)	Ex Ante Gross Savings (kWh)	Program Gross Realization Rate	Verified Gross Savings (kWh)	Program Net-to-Gross Ratio (NTG)	Verified Net Savings (kWh)	EUL
Contractor / Midstream Rebates	Midstream	TRUE	HVAC	Midstream ASHP - Electrification (Income Eligible)	519	2,915,425	5,616	336,297	648	9,856,853	6,941,428	6,940,864	1.00	6,940,864	0.80	5,552,691	16.00
Contractor / Midstream Rebates	Midstream	FALSE	HVAC	Midstream ASHP - Electrification (Non - Income Eligible)	1,163	6,660,188	5,725	768,258	660	22,517,640	15,857,452	15,856,164	1.00	15,856,164	0.80	12,684,931	16.00
Contractor / Midstream Rebates	Midstream	TRUE	HVAC	Midstream ASHP - Electrification - DAC (Income Eligible)	75.63	409,607	5,416	47,249	625	1,384,854	975,247	975,168	1.00	975,168	1.00	975,168	16.00



Program	Component	IE	End Use Type	Savings Category	Quantity	Increase in Electricity Consumption (kWh)	Average Increase in Electricity Consumption (kWh)	Decrease in Gas Consumption (therms)	Average Decrease in Gas Consumption (therms)	Decrease in Gas Consumption (kWh)	Net Change in Electricity Consumption (kWh)	Ex Ante Gross Savings (kWh)	Program Gross Realization Rate	Verified Gross Savings (kWh)	Program Net-to-Gross Ratio (NTG)	Verified Net Savings (kWh)	EUL
Contractor / Midstream Rebates	Midstream	FALSE	HVAC	Midstream ASHP - Electrification - DAC (Non - Income Eligible)	54.72	295,543	5,401	34,091	623	999,210	703,667	703,610	1.00	703,610	1.00	703,610	16.00
Contractor / Midstream Rebates	Midstream	TRUE	HVAC	Midstream DMSHP - Electrification (Income Eligible)	223	656,868	2,949	93,989	422	2,754,830	2,097,962	2,098,019	1.00	2,097,805	0.80	1,678,244	15.00
Contractor / Midstream Rebates	Midstream	FALSE	HVAC	Midstream DMSHP - Electrification (Non - Income Eligible)	453	1,324,505	2,926	189,520	419	5,554,824	4,230,319	4,230,433	1.00	4,230,001	0.80	3,384,001	15.00
Contractor / Midstream Rebates	Midstream	TRUE	HVAC	Midstream DMSHP - Electrification - DAC (Income Eligible)	94.21	290,209	3,080	41,525	441	1,217,102	926,893	926,918	1.00	926,824	1.00	926,824	15.00
Contractor / Midstream Rebates	Midstream	FALSE	HVAC	Midstream DMSHP - Electrification - DAC (Non - Income Eligible)	64.19	197,518	3,077	28,262	440	828,367	630,849	630,866	1.00	630,802	1.00	630,802	15.00
Contractor / Midstream Rebates	Midstream	TRUE	HVAC	Ground Source Heat Pump - Electrification (Income Eligible)	3.26	16,906	5,182	3,132	960	91,795	74,890	85,861	1.02	87,722	0.59	51,756	25.00
Contractor / Midstream Rebates	Midstream	FALSE	HVAC	Ground Source Heat Pump - Electrification (Non - Income Eligible)	6.74	34,509	5,122	6,393	949	187,378	152,869	175,264	1.02	179,063	0.59	105,647	25.00
Electric Homes New Construction	EHNC	FALSE	HVAC	Ductless Mini Split Heat Pumps	6.00	57,673	9,612	7,975	1,329	235,562	177,889	78,210	2.27	177,889	0.90	159,645	15.00
Electric Homes New Construction	EHNC	FALSE	HVAC	Central Air Source Heat Pumps	32.00	611,065	19,096	48,114	1,504	1,418,397	807,332	870,270	0.93	807,332	0.90	724,532	16.00
Electric Homes New Construction	EHNC	FALSE	Hot Water	High-Performance Water Heating Equipment - Electrification	16.00	50,983	3,186	10,430	652	309,988	259,004	256,722	1.01	259,004	0.90	232,441	15.00
Electric Homes New Construction	EHNC	FALSE	Appliances	Efficient Appliances - Electrification	16.00	22,471	1,404	1,061	66.31	31,119	8,649	8,649	1.00	8,649	0.90	7,762	16.00
Heat Pump Water Heater Pilot	Heat Pump Water Pilot	FALSE	Hot Water	Heat Pump Water Heat - Electrification	22.00	20,599	936	4,064	185	119,122	98,523	105,849	0.93	98,517	0.80	78,813	15.00
Heat Pump Water Heater Pilot	Heat Pump Water Pilot	FALSE	Hot Water	Heat Pump Water Heat - Electrification/DAC	3.00	2,258	753	482	161	14,127	11,870	11,506	1.03	11,869	1.00	11,869	15.00
Incentives	Custom	FALSE	Other	HVAC Equipment - Electrification	1.00	47,466	47,466	7,927	7,927	232,344	184,878	117,569	0.88	103,145	0.53	54,667	16.00
Midstream/Upstream Instant Discounts		FALSE	Other	Electrification Fork Trucks	40.00	1,823,770	45,594	22,268	557	6,526,235	4,702,465	4,701,336	1.00	4,702,465	0.80	3,761,972	15.00
Midstream/Upstream Instant Discounts		FALSE	Other	Electrification Fork Trucks DAC	17.00	820,056	48,239	10,013	589	2,934,513	2,114,457	2,113,949	1.00	2,114,457	1.00	2,114,457	15.00
Multifamily Upgrades	Elevate	TRUE	HVAC	Air Source Heat Pump Installation - Electrification	61.00	580,628	9,518	48,871	801	1,435,844	855,216	814,491	1.05	855,216	1.00	855,216	16.00
Multifamily Upgrades	Elevate	TRUE	Hot Water	DHW Heater Replacement - Heat Pump - Electrification	1.00	6,498	6,498	1,188	1,188	34,895	28,397	27,045	1.05	28,397	1.00	28,397	15.00
Multifamily Upgrades	Elevate	TRUE	Appliances	Stove Replacement - Electric Range - electrification	56.00	7,646	137	580	10.35	17,031	9,385	8,938	1.05	9,385	1.00	9,385	16.00
Multifamily Upgrades	Franklin	TRUE	HVAC	ASHP Heat Pump - Electrification	114	160,437	1,407	40,438	355	1,188,069	1,027,632	978,697	1.05	1,027,632	1.00	1,027,632	16.00

Program	Component	IE	End Use Type	Savings Category	Quantity	Increase in Electricity Consumption (kWh)	Average Increase in Electricity Consumption (kWh)	Decrease in Gas Consumption (therms)	Average Decrease in Gas Consumption (therms)	Decrease in Gas Consumption (kWh)	Net Change in Electricity Consumption (kWh)	Ex Ante Gross Savings (kWh)	Program Gross Realization Rate	Verified Gross Savings (kWh)	Program Net-to-Gross Ratio (NTG)	Verified Net Savings (kWh)	EUL
New Construction - IE	Affordable Housing New Construction	TRUE	HVAC	High Performance HVAC Equipment-Air Source Heat Pump-Residential	4.00	13,381	3,345	1,662	416	48,713	35,332	33,469	1.06	35,332	1.00	35,332	16.00
New Construction - IE	Affordable Housing New Construction	TRUE	HVAC	High Performance HVAC Equipment-Air Source Heat Pump-Commercial	2.00	2,308	1,154	479	239	14,035	11,727	11,109	1.06	11,727	1.00	11,727	15.00
New Construction - IE	Affordable Housing New Construction	TRUE	HVAC	High Performance HVAC Equipment-Electrification-VRF	14.00	178,699	12,764	49,835	3,560	1,460,676	1,281,976	1,214,368	1.06	1,281,976	1.00	1,281,976	16.00
New Construction - IE	Affordable Housing New Construction	TRUE	HVAC	High Performance HVAC Equipment-PTHP	198	223,590	1,129	27,965	141	819,642	596,052	564,618	1.06	596,052	1.00	596,052	8.00
New Construction - IE	Affordable Housing New Construction	TRUE	Appliances	Efficient Appliances-Electrification	80.00	20,853	261	984	12.30	28,844	7,991	11,445	0.70	7,991	1.00	7,991	16.00
Retail/Online	Appliance Rebates	FALSE	Appliances	MR Heat Pump Dryer EEE DAC	11.00	-799	-73	14.30	1.30	4,196	4,995	4,191	1.19	4,995	1.00	4,995	16.00
Retail/Online	Appliance Rebates	FALSE	Appliances	MR Heat Pump Dryer EEE	32.00	-2,295	-72	41.10	1.28	12,051	14,346	12,007	1.19	14,346	0.80	11,477	16.00
Retail/Online	Appliance Rebates	FALSE	Appliances	MR Induction Cooktop EEE DAC	23.00	2,875	125	23.23	1.01	6,808	3,933	265	14.83	3,933	1.00	3,933	16.00
Retail/Online	Appliance Rebates	FALSE	Appliances	MR Induction Cooktop EEE	79.00	9,875	125	79.79	1.01	23,385	13,510	911	14.83	13,510	0.80	10,808	16.00
Retail/Online	Appliance Rebates	TRUE	Appliances	IE Heat Pump EEE DAC	1.00	-71	-71	1.27	1.27	373	444	370	1.20	443	1.00	443	16.00
Retail/Online	Appliance Rebates	TRUE	Appliances	IE Heat Pump EEE	4.00	-284	-71	5.08	1.27	1,490	1,774	1,481	1.20	1,774	1.00	1,774	16.00
Retail/Online	Appliance Rebates	TRUE	Appliances	IE Induction Cooktop EEE DAC	1.00	125	125	1.01	1.01	296	171	11.53	14.83	171	1.00	171	16.00
Retail/Online	Appliance Rebates	TRUE	Appliances	IE Induction Cooktop EEE	10.00	1,250	125	10.10	1.01	2,960	1,710	115	14.83	1,710	1.00	1,710	16.00
Single-Family Upgrades	IE Whole Home Electrification - Resource Innovations	TRUE	HVAC	Air Source Heat Pump - Electrification	23.00	259,999	11,304	21,345	928	625,625	365,627	366,663	1.00	365,627	1.00	365,627	16.00
Single-Family Upgrades	IE Whole Home Electrification - Resource Innovations	TRUE	Appliances	Clothes Dryer - Electrification	24.00	14,801	617	659	27.45	19,311	4,510	4,507	1.00	4,510	1.00	4,510	16.00
Single-Family Upgrades	IE Whole Home Electrification - Resource Innovations	TRUE	Appliances	Cooktop - Electrification	23.00	2,592	113	177	7.72	5,202	2,610	2,608	1.00	2,610	1.00	2,610	16.00
Single-Family Upgrades	IE Whole Home Electrification - Resource Innovations	TRUE	HVAC	Ductless Heat Pump - Electrification	2.00	14,156	7,078	1,754	877	51,405	37,249	37,185	1.00	37,249	1.00	37,249	15.00
Single-Family Upgrades	IE Whole Home Electrification - Resource Innovations	TRUE	HVAC	Heat Pump Water Heater - Electrification	24.00	19,520	813	4,471	186	131,033	111,513	111,454	1.00	111,513	1.00	111,513	15.00
Single-Family Upgrades	IE Whole Home Electrification - Resource Innovations	TRUE	HVAC	Air Source Heat Pump - Electrification-DAC	40.00	456,403	11,410	39,067	977	1,145,051	688,648	690,600	1.00	688,648	1.00	688,648	16.00
Single-Family Upgrades	IE Whole Home Electrification - Resource Innovations	TRUE	Appliances	Clothes Dryer - Electrification-DAC	34.00	22,265	655	925	27.20	27,104	4,839	4,836	1.00	4,839	1.00	4,839	16.00
Single-Family Upgrades	IE Whole Home Electrification - Resource Innovations	TRUE	Appliances	Cooktop - Electrification-DAC	46.00	5,252	114	362	7.87	10,610	5,358	5,354	1.00	5,358	1.00	5,358	16.00

Program	Component	IE	End Use Type	Savings Category	Quantity	Increase in Electricity Consumption (kWh)	Average Increase in Electricity Consumption (kWh)	Decrease in Gas Consumption (therms)	Average Decrease in Gas Consumption (therms)	Decrease in Gas Consumption (kWh)	Net Change in Electricity Consumption (kWh)	Ex Ante Gross Savings (kWh)	Program Gross Realization Rate	Verified Gross Savings (kWh)	Program Net-to-Gross Ratio (NTG)	Verified Net Savings (kWh)	EUL
Single-Family Upgrades	IE Whole Home Electrification - Resource Innovations	TRUE	Hot Water	Electric Water Heater - Electrification-DAC	2.00	1,240	620	307	153	8,986	7,746	7,726	1.00	7,746	1.00	7,746	13.00
Single-Family Upgrades	IE Whole Home Electrification - Resource Innovations	TRUE	HVAC	Heat Pump Water Heater - Electrification-DAC	37.00	35,460	958	6,905	187	202,400	166,940	166,852	1.00	166,940	1.00	166,940	15.00
Single-Family Upgrades	IE Whole Home Electrification - Elevate	TRUE	Appliances	Stove Replacement - Induction Cooktop - Electrification	47.00	5,858	125	474	10.09	13,902	8,044	8,039	1.00	8,044	1.00	8,044	16.00
Single-Family Upgrades	IE Whole Home Electrification - Elevate	TRUE	Appliances	Dryer Replacement - Electric/HP Clothes Dryer - Electrification	44.00	-	-	295	6.70	8,637	8,637	8,631	1.00	8,637	1.00	8,637	16.00
Single-Family Upgrades	IE Whole Home Electrification - Elevate	TRUE	HVAC	Air Source Heat Pump Installation - Electrification	37.00	448,241	12,115	37,535	1,014	1,100,158	651,917	653,765	1.00	651,917	1.00	651,917	16.00
Single-Family Upgrades	IE Whole Home Electrification - Elevate	TRUE	HVAC	DHW Heater Replacement - Heat Pump - Electrification	29.00	22,175	765	5,189	179	152,088	129,914	129,845	1.00	129,914	1.00	129,914	15.00
<b>Total</b>	-	-	-	-	<b>3,913</b>	<b>18,770,293</b>	<b>303,895</b>	<b>1,952,691</b>	<b>30,475</b>	<b>65,815,079</b>	<b>47,044,786</b>	<b>46,768,822</b>	<b>1.00</b>	<b>46,999,491</b>	<b>0.85</b>	<b>39,922,402</b>	<b>15.58</b>

Note: This table shows only gross and net electrification savings counted towards ComEd's goal in CY2023. Results shown for programs in sectors other than Income Eligible may be different from program specific reports.  
 Source: Evaluation team analysis

**Table 2-10: Total CPAS Counting Toward ComEd Goal– Electric Direct + Other Fuel Counted + Electrification Counted**

Sector	Program	WAML	CY2023 Verified Gross Savings (kWh)	NTG*	Lifetime Net Savings (kWh)†	2018	2019	2020	2021	2022	2023	2024
Business & Public Sector	Small Business	13.11	233,649,049	0.98	2,902,350,098	-	-	-	-	-	227,894,346	227,861,072
Business & Public Sector	Incentives	14.19	212,661,884	0.92	2,717,601,431	-	-	-	-	-	195,491,153	195,491,153
Business & Public Sector	Midstream/Upstream	13.20	148,566,931	0.86	1,655,064,450	-	-	-	-	-	127,961,662	127,961,662
Business & Public Sector	Targeted Systems	7.68	94,947,654	0.86	617,059,570	-	-	-	-	-	81,694,225	81,694,225
Business & Public Sector	Behavior Bus/Pub	7.00	42,494,273	0.97	288,553,690	-	-	-	-	-	41,221,956	41,221,956
Business & Public Sector	New Construction - Bus/Pub	17.40	20,947,081	0.50	181,696,446	-	-	-	-	-	10,442,324	10,442,324
Business & Public Sector	Assessments	3.60	2,455,483	0.94	8,316,215	-	-	-	-	-	2,309,581	2,309,581
Res & IE	Retail/Online	12.99	318,850,656	0.90	3,669,479,301	-	-	-	-	-	287,010,272	287,009,891
Res & IE	Product Distribution	8.84	308,706,153	1.00	2,579,475,138	-	-	-	-	-	308,497,484	308,497,484
Res & IE	Single-Family Upgrades	17.75	55,822,399	1.00	923,247,494	-	-	-	-	-	55,752,243	55,732,206
Res & IE	Multifamily Upgrades	14.48	54,797,679	0.99	783,527,233	-	-	-	-	-	54,465,051	54,412,168
Res & IE	Contractor / Midstream Rebates	15.83	48,580,766	0.82	564,867,808	-	-	-	-	-	39,748,236	39,748,236
Res & IE	New Construction - IE	15.00	4,112,309	1.00	61,704,379	-	-	-	-	-	4,112,309	4,112,309
Res & IE	Electric Homes New Construction	15.17	1,627,253	0.90	22,159,682	-	-	-	-	-	1,460,362	1,460,362
Res & IE	Behavior - Res/IE	10.00	-	-	291,987,668	-	-	-	-	-	82,444,452	60,088,959
Res & IE	ASI kWh Purchase**	20.00	877,947	0.90	15,115,464	-	-	-	-	-	791,055	791,055
Pilot	Industrial Energy Management Information Systems	5.00	1,686,744	0.80	6,746,976	-	-	-	-	-	1,349,395	1,349,395
Pilot	Heat Pump Water Heater Pilot	15.00	135,931	0.82	1,666,781	-	-	-	-	-	111,119	111,119
Market Transformation	ENERGY STAR Retail Products Platform	14.34	9,610,560	1.00	137,797,829	-	-	-	-	-	9,610,560	9,610,560
Voltage Optimization	Voltage Optimization	15.00	68,991,654	1.00	1,034,874,812	-	-	-	-	-	68,991,654	68,991,654
<b>CY2023 Portfolio Total Contribution to CPAS (kWh)</b>	-	-	<b>1,629,522,405</b>	-	<b>18,463,292,463</b>	-	-	-	-	-	<b>1,601,359,437</b>	<b>1,578,897,369</b>
Historic Portfolio Total Contribution to CPAS‡	-	-	-	-	-	1,859,781,075	3,426,787,036	5,139,036,924	6,513,673,306	8,083,256,428	7,867,930,408	7,383,679,746
Legacy Savings (kWh)§	-	-	-	-	-	-	4,087,238,480	3,537,033,300	3,144,029,597	2,933,997,266	2,573,016,371	2,324,014,787
Portfolio Total CPAS (kWh)	-	-	-	-	-	1,859,781,075	7,514,025,516	8,676,070,224	9,657,702,903	11,017,253,694	12,042,306,217	11,286,591,902
CY2023 Portfolio Incremental Expiring Savings	-	-	-	-	-	-	-	-	-	-	-	22,462,068
Historic Portfolio Incremental Expiring Savings#	-	-	-	-	-	-	-	-	-	154,158,999	215,326,019	484,250,662
Legacy Incremental Expiring Savings	-	-	-	-	-	-	-4,087,238,480	360,980,895	393,003,703	210,032,331	360,980,895	249,001,584



Sector	Program	WAML	CY2023 Verified Gross Savings (kWh)	NTG*	Lifetime Net Savings (kWh)†	2018	2019	2020	2021	2022	2023	2024
Portfolio Grand Total Incremental Expiring Savings*†		-	-	-	-	-4,087,238,480	360,980,895	393,003,703	364,191,330	576,306,914	755,714,315	
Progress towards Applicable Annual Incremental Goal (AAIG)††		-	-	-	-	-	-	-	-	1,025,052,523	-	

Sector	Program	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Business & Public Sector	Small Business	227,005,299	222,331,561	218,441,791	212,305,008	211,657,514	210,859,628	208,863,706	204,709,909	191,246,950	166,328,411	139,128,223	123,262,938	110,445,014
Business & Public Sector	Incentives	194,855,966	193,943,057	193,541,743	192,289,797	188,491,639	185,639,669	184,758,694	184,221,448	171,342,506	140,718,895	124,491,602	115,280,902	112,412,898
Business & Public Sector	Midstream/Upstream	121,675,746	121,675,746	117,085,532	112,879,276	112,879,276	112,879,276	112,879,276	112,862,166	107,866,440	98,867,880	93,765,791	93,765,791	79,822,800
Business & Public Sector	Targeted Systems	81,694,225	59,847,089	59,003,949	58,812,562	58,812,562	40,801,646	25,847,257	14,943,558	14,927,272	14,927,272	14,927,272	1,905,022	1,905,022
Business & Public Sector	Behavior Bus/Pub	41,221,956	41,221,956	41,221,956	41,221,956	41,221,956	-	-	-	-	-	-	-	-
Business & Public Sector	New Construction - Bus/Pub	10,442,324	10,442,324	10,442,324	10,442,324	10,442,324	10,442,324	10,442,324	10,442,324	10,442,324	10,442,324	10,442,324	10,442,324	10,442,324
Business & Public Sector	Assessments	1,623,600	1,160,538	912,916	-	-	-	-	-	-	-	-	-	-
Res & IE	Retail/Online	277,210,103	277,210,103	264,581,407	264,311,930	262,779,953	239,623,353	162,104,938	154,502,314	142,142,068	121,178,786	118,223,729	118,218,807	116,730,256
Res & IE	Product Distribution	306,126,912	306,126,912	281,934,026	281,934,026	281,934,026	271,700,892	25,489,006	25,489,006	18,174,537	18,174,537	18,174,537	18,174,537	18,174,537
Res & IE	Single-Family Upgrades	55,732,206	55,580,607	55,508,905	55,022,598	54,466,532	53,452,713	47,907,447	47,887,593	42,630,850	40,126,073	40,115,210	39,551,520	39,528,228
Res & IE	Multifamily Upgrades	53,749,854	53,723,192	53,708,105	50,742,310	43,861,273	42,972,714	41,860,867	41,730,740	40,809,413	38,127,543	37,047,493	37,033,357	37,027,547
Res & IE	Contractor / Midstream Rebates	39,748,236	39,716,394	39,716,394	39,716,394	36,413,628	34,506,514	32,815,299	32,815,299	32,814,959	32,392,646	32,392,646	32,392,646	32,392,646
Res & IE	New Construction - IE	4,112,309	4,112,309	4,112,309	4,112,309	4,112,309	4,112,309	4,112,309	4,107,804	3,950,568	3,747,006	3,745,154	2,810,011	1,600,262
Res & IE	Electric Homes New Construction	1,439,576	1,439,576	1,439,576	1,439,576	1,439,576	1,439,576	1,439,576	1,439,576	1,366,401	1,321,251	1,321,251	1,305,776	1,300,192
Res & IE	Behavior - Res/IE	43,916,492	31,626,513	23,273,815	17,054,219	12,646,902	9,255,602	6,732,685	4,948,028	-	-	-	-	-
Res & IE	ASI kWh Purchase**	791,055	791,055	791,055	791,055	791,055	791,055	791,055	791,055	720,492	720,492	720,492	720,492	720,492
Pilot	Industrial Energy Management Information Systems	1,349,395	1,349,395	1,349,395	-	-	-	-	-	-	-	-	-	-
Pilot	Heat Pump Water Heater Pilot	111,119	111,119	111,119	111,119	111,119	111,119	111,119	111,119	111,119	111,119	111,119	111,119	111,119
Market Transformation	ENERGY STAR Retail Products Platform	9,610,560	9,610,560	9,610,560	9,610,560	9,610,560	9,610,560	9,610,560	9,610,560	9,610,560	9,610,560	9,610,560	9,610,560	3,249,990
Voltage Optimization	Voltage Optimization	68,991,654	68,991,654	68,991,654	68,991,654	68,991,654	68,991,654	68,991,654	68,991,654	68,991,654	68,991,654	68,991,654	68,991,654	68,991,654
CY2023 Portfolio Total Contribution to CPAS (kWh)		1,541,408,585	1,501,011,657	1,445,778,529	1,421,788,671	1,400,663,857	1,297,190,604	944,757,771	919,604,155	857,148,112	765,786,449	713,209,056	673,577,456	634,854,982
Historic Portfolio Total Contribution to CPAS†		6,943,551,953	6,539,876,187	6,233,513,300	5,632,095,949	5,213,131,205	4,553,233,525	3,947,595,134	3,332,518,643	2,746,019,659	2,156,650,831	1,516,589,992	842,650,614	370,390,164
Legacy Savings (kWh)§		2,075,013,202	1,909,012,146	1,743,011,090	1,494,009,506	1,411,008,978	1,245,007,921	1,079,006,865	913,005,809	747,004,753	581,003,697	415,002,640	332,002,112	249,001,584
Portfolio Total CPAS (kWh)		10,559,973,740	9,949,899,990	9,422,302,919	8,547,894,126	8,024,804,040	7,095,432,050	5,971,359,770	5,165,128,607	4,350,172,523	3,503,440,976	2,644,801,689	1,848,230,183	1,254,246,731
CY2023 Portfolio Incremental Expiring Savings		37,488,784	40,396,928	55,233,128	23,989,858	21,124,814	103,473,253	352,432,833	25,153,617	62,456,043	91,361,663	52,577,393	39,631,600	38,722,474
Historic Portfolio Incremental Expiring Savings#		440,127,793	403,675,766	306,362,887	601,417,351	418,964,744	659,897,680	605,638,391	615,076,491	586,498,985	589,368,828	640,060,839	673,939,378	472,260,450
Legacy Incremental Expiring Savings		249,001,584	166,001,056	166,001,056	249,001,584	83,000,528	166,001,056	166,001,056	166,001,056	166,001,056	166,001,056	166,001,056	83,000,528	83,000,528
Portfolio Grand Total Incremental Expiring Savings*†		726,618,162	610,073,750	527,597,070	874,408,794	523,090,086	929,371,990	1,124,072,280	806,231,164	814,956,084	846,731,547	858,639,288	796,571,506	593,983,452
Progress towards Applicable Annual Incremental Goal (AAIG)††		-	-	-	-	-	-	-	-	-	-	-	-	-

Sector	Program	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050
Business & Public Sector	Small Business	873	873	873	873	873	873	873	873	873	873	-	-	-
Business & Public Sector	Incentives	22,155,822	22,093,866	21,822,332	21,045,322	21,045,322	12,717,577	11,419,401	11,419,401	595,609	315,657	-	-	-
Business & Public Sector	Midstream/Upstream	53,059	53,059	53,059	53,059	23,897	-	-	-	-	-	-	-	-
Business & Public Sector	Targeted Systems	664,552	664,552	664,552	664,552	664,552	664,552	664,552	664,552	-	-	-	-	-
Business & Public Sector	Behavior Bus/Pub	-	-	-	-	-	-	-	-	-	-	-	-	-
Business & Public Sector	New Construction - Bus/Pub	10,442,324	10,442,324	4,176,930	-	-	-	-	-	-	-	-	-	-
Business & Public Sector	Assessments	-	-	-	-	-	-	-	-	-	-	-	-	-
Res & IE	Retail/Online	115,642,200	115,386,060	115,386,060	115,385,063	114,842,006	-	-	-	-	-	-	-	-
Res & IE	Product Distribution	18,174,537	18,174,537	18,174,537	18,174,537	18,174,537	-	-	-	-	-	-	-	-

Sector	Program	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050
Res & IE	Single-Family Upgrades	38,488,845	36,407,604	36,407,604	36,262,074	35,906,632	156,165	155,910	155,910	155,910	155,910	-	-	-
Res & IE	Multifamily Upgrades	21,937,098	18,906,589	18,905,488	18,905,488	18,905,488	948,988	948,988	948,988	924,249	924,249	-	-	-
Res & IE	Contractor / Midstream Rebates	24,457,943	730,671	730,671	242,422	242,422	226,701	226,701	226,701	226,701	226,701	-	-	-
Res & IE	New Construction - IE	939,030	923,683	923,683	923,683	906,163	116,554	-	-	-	-	-	-	-
Res & IE	Electric Homes New Construction	861,017	65,496	65,496	65,496	49,973	-	-	-	-	-	-	-	-
Res & IE	Behavior - Res/IE	-	-	-	-	-	-	-	-	-	-	-	-	-
Res & IE	ASI kWh Purchase**	720,492	720,492	720,492	720,492	720,492	-	-	-	-	-	-	-	-
Pilot	Industrial Energy Management Information Systems	-	-	-	-	-	-	-	-	-	-	-	-	-
Pilot	Heat Pump Water Heater Pilot	-	-	-	-	-	-	-	-	-	-	-	-	-
Market Transformation	ENERGY STAR Retail Products Platform	-	-	-	-	-	-	-	-	-	-	-	-	-
Voltage Optimization	Voltage Optimization	-	-	-	-	-	-	-	-	-	-	-	-	-
CY2023 Portfolio Total Contribution to CPAS (kWh)	-	254,537,792	224,569,806	218,031,776	212,443,059	211,482,356	14,831,410	13,416,425	13,416,425	1,903,342	1,623,390	-	-	-
Historic Portfolio Total Contribution to CPAS†	-	317,012,825	279,730,220	254,656,972	150,611,484	51,222,364	31,675,249	21,754,532	8,484,772	2,373,647	443,970	443,970	443,970	443,970
Legacy Savings (kWh)§	-	166,001,056	83,000,528	-	-	-	-	-	-	-	-	-	-	-
Portfolio Total CPAS (kWh)	-	737,551,673	587,300,554	472,688,748	363,054,543	262,704,720	46,506,658	35,170,957	21,901,197	4,276,989	2,067,360	443,970	443,970	443,970
CY2023 Portfolio Incremental Expiring Savings	-	380,317,190	29,967,986	6,538,030	5,588,717	960,703	196,650,946	1,414,985	-	11,513,083	279,952	1,623,390	-	-
Historic Portfolio Incremental Expiring Savings#	-	53,377,340	37,282,605	25,073,248	104,045,488	99,389,120	19,547,115	9,920,717	13,269,760	6,111,125	1,929,677	-	-	-
Legacy Incremental Expiring Savings	-	83,000,528	83,000,528	83,000,528	-	-	-	-	-	-	-	-	-	-
Portfolio Grand Total Incremental Expiring Savings*†	-	516,695,058	150,251,119	114,611,806	109,634,205	100,349,823	216,198,062	11,335,702	13,269,760	17,624,208	2,209,629	1,623,390	-	-
Progress towards Applicable Annual Incremental Goal (AAIG)††	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: This table shows only gross and net other fuel savings counted towards ComEd's goal in CY2023. Results shown for programs in sectors other than Income Eligible may be different from program specific reports (in CY2023 other fuel counted kWh came from Income Eligible only).

\* The program-level NTG values shown are calculated as Verified Net/Verified Gross. The program-level analysis typically used measure-level deemed NTG values, which are listed here: <https://www.ilsag.info/evaluator-ntg-recommendations-for-2023>.

† Lifetime savings are the sum of CPAS savings through the EUL.

‡ Historic savings go back to CY2018.

§ Legacy savings are cumulative persisting annual savings from energy efficiency measures implemented from January 1, 2012 - December 31, 2017, as deemed by CEJA.

|| Incremental expiring savings are equal to CPAS Yn-1 - CPAS Yn

# Historic incremental expiring savings are equal to Historic CPAS Yn-1 – Historic CPAS Yn.

\*† Portfolio total incremental expiring savings are equal to current year total incremental expiring savings plus historic total incremental expiring savings and legacy incremental expiring savings.

†† AAIG is equal to CPAS Yn - CPAS Yn-1.

\*\*The ASI kWh Purchase is not included as a program, but the savings are counted in this table as part of the residential sector kWh savings.

Source: Evaluation team analysis

## 2.3 Weighted Average Measure Life

Guidehouse calculated the weighted average measure life (WAML) for the CY2023 programs as 12.1 years excluding Voltage Optimization and 12.3 years including Voltage Optimization.

The equation to calculate the portfolio level WAML is shown in Equation 2-5 where the summation occurs across all programs with savings during CY2023, except for Voltage Optimization. The WAML calculation includes the electric-equivalent of the portion of other fuel savings and electrification savings that ComEd can claim toward goal, as discussed in the previous section.

### Equation 2-5. Portfolio Level WAML Calculation

$$WAML = \frac{\sum(\text{Program Level WAML} * \text{Program Level First Year Verified Gross Savings})}{\sum(\text{Program Level First Year Verified Gross Savings})}$$

Where

*Program Level WAML* is the program level WAML  
*Program Level Verified Gross Savings* is the gross verified savings for the program that occurred during CY2023 including electric and claimable gas savings.

The program level WAML is calculated as shown in Equation 2-6 where the summation occurs across all the measures<sup>11</sup> in the program.

### Equation 2-6. Program Level WAML Calculation

$$\text{Program Level WAML} = \frac{\sum(\text{Measure Level EUL} * \text{Measure Level First Year Verified Gross Savings})}{\sum(\text{Measure Level First Year Verified Gross Savings})}$$

Where

*Measure Level EUL* is the effective useful life (EUL) for each measure in the program<sup>12</sup>  
*Measure Level Verified Gross Savings* is the gross verified savings during the period for each measure in the program

Table 2-11 shows savings for each program and the calculated WAML. The lifetime savings are estimated by multiplying the first year verified gross savings by the WAML

<sup>11</sup> Not all programs have measures (for example New Construction). In these cases, the EUL is aggregated from whatever level program savings are reported at (e.g. building, project, etc.).

<sup>12</sup> EUL values are either provided in the TRM or through Guidehouse research.

**Table 2-11: WAML and Verified Gross Savings by Program**

Sector	Program	First Year Verified Gross Savings (kWh)	WAML
Business & Public Sector	Small Business	233,649,049	13.1
Business & Public Sector	Incentives	212,661,884	14.2
Business & Public Sector	Midstream/Upstream	148,566,931	13.2
Business & Public Sector	Targeted Systems	94,947,654	7.7
Business & Public Sector	Behavior Bus/Pub	42,494,273	7.0
Business & Public Sector	New Construction - Bus/Pub	20,947,081	17.4
Business & Public Sector	Assessments	2,455,483	3.6
Business & Public Sector	Subtotal	755,722,355	12.5
Res & IE	Retail/Online	318,850,656	13.0
Res & IE	Product Distribution	308,706,153	8.8
Res & IE	Behavior - Res/IE	82,444,452	10.0
Res & IE	Single-Family Upgrades	55,822,399	17.8
Res & IE	Multifamily Upgrades	54,797,679	14.5
Res & IE	Contractor / Midstream Rebates	48,580,766	15.8
Res & IE	New Construction - IE	4,112,309	15.0
Res & IE	Electric Homes New Construction	1,627,253	15.2
Res & IE	ASI kWh Purchase**	877,947	20.0
Res & IE	Subtotal	875,819,612	11.8
Pilot	Industrial Energy Management Information Systems	1,686,744	5.0
Pilot	Heat Pump Water Heater Pilot	135,931	15.0
Pilot	Subtotal	1,822,675	5.8
Market Transformation	ENERGY STAR Retail Products Platform	9,610,560	14.3
Market Transformation	Subtotal	9,610,560	14.3
Portfolio	Grand Total Excluding VO	1,642,975,203	12.1
Voltage Optimization	Voltage Optimization	68,991,654	15.0
Voltage Optimization	Subtotal	68,991,654	15.0
Portfolio	Grand Total Including VO	1,711,966,857	12.3

Note: Verified Gross Savings include both electric savings and converted kWh equivalents from other fuel counted towards goal, electrification savings, and secondary electric energy (kWh) savings from water supply and wastewater treatment plants for measures claimed by ComEd. The WAML values in this table will differ from Table 2-3 for programs that saved other fuel because some programs have different electric and other fuel WAML based on measure types and whether they saved other fuel. Therefore, the WAML shown in this table is a weighted value for programs that saved both electric and other fuel.

\* No verified gross savings. Verified Net savings are used for WAML calculation.

\*\*The ASI kWh Purchase is not included as a program, but the savings are counted in this table as part of the residential sector kWh savings.

Source: Evaluation team analysis

### 3. Savings by Program

The electricity savings by program are shown in the following tables and figures. Table 3-1 shows the direct electric savings which includes primary kWh savings from efficient measures (it includes efficiency savings from electrification measures but excludes the electrification savings), and secondary kWh savings from water supply and wastewater treatment from measures claimed by ComEd. It also includes carryover savings, and applicable electric heating penalties. It does not include other fuel savings and electrification converted to electricity. Table 3-2 includes savings from gas and electrification converted to electricity, counting only those savings that ComEd can claim within the 10% limit for other fuel and 5% limit for electrification, as discussed above in Section 2.1.

**Table 3-1: Energy Savings by Program – Electric Only**

Sector	Program	Ex Ante Gross Savings (kWh)	Verified Gross Realization Rate	Verified Gross Savings (kWh)	NTG*	Verified Net Savings (kWh)
Business & Public Sector	Small Business	232,510,311	1.00	233,649,049	0.98	227,894,346
Business & Public Sector	Incentives	225,342,409	0.94	212,558,739	0.92	195,436,486
Business & Public Sector	Midstream/Upstream	112,321,621	1.26	141,750,009	0.86	122,085,232
Business & Public Sector	Targeted Systems	99,141,453	0.96	94,947,654	0.86	81,694,225
Business & Public Sector	Behavior Bus/Pub	42,544,332	1.00	42,494,273	0.97	41,221,956
Business & Public Sector	New Construction - Bus/Pub	20,583,262	1.02	20,947,081	0.50	10,442,324
Business & Public Sector	Assessments	2,606,766	0.94	2,455,483	0.94	2,309,581
Business & Public Sector	<b>Subtotal</b>	<b>735,050,153</b>	<b>1.02</b>	<b>748,802,288</b>	<b>0.91</b>	<b>681,084,151</b>
Res & IE	Product Distribution	273,570,963	1.09	298,789,722	1.00	298,581,053
Res & IE	Retail/Online	195,379,737	1.21	236,334,570	0.87	204,499,758
Res & IE	Multifamily Upgrades	30,744,829	1.09	33,376,661	0.99	33,044,033
Res & IE	Contractor / Midstream Rebates	16,366,196	0.97	15,952,744	0.82	13,054,563
Res & IE	Single-Family Upgrades	11,727,636	1.02	11,912,342	0.99	11,842,186
Res & IE	New Construction - IE	955,337	1.15	1,102,724	1.00	1,102,724
Res & IE	Electric Homes New Construction	241,946	1.55	374,379	0.90	335,982
Res & IE	Behavior - Res/IE	-	-	-	-	82,444,452
Res & IE	ASI kWh Purchase**	877,768	1.00	877,947	0.90	791,055
Res & IE	<b>Subtotal</b>	<b>529,864,412</b>	<b>1.13</b>	<b>598,721,089</b>	<b>1.08</b>	<b>645,695,806</b>
Pilot	Industrial Energy Management Information Systems	1,734,366	0.97	1,686,744	0.80	1,349,395
Pilot	Heat Pump Water Heater Pilot	23,465	1.09	25,545	0.80	20,436
Pilot	<b>Subtotal</b>	<b>1,757,831</b>	<b>0.97</b>	<b>1,712,289</b>	<b>0.80</b>	<b>1,369,831</b>
Market Transformation	ENERGY STAR Retail Products Platform	3,460,734	2.78	9,610,560	1.00	9,610,560
Market Transformation	<b>Subtotal</b>	<b>3,460,734</b>	<b>2.78</b>	<b>9,610,560</b>	<b>1.00</b>	<b>9,610,560</b>
Voltage Optimization	Voltage Optimization	68,604,187	1.01	68,991,654	1.00	68,991,654
Voltage Optimization	<b>Subtotal</b>	<b>68,604,187</b>	<b>1.01</b>	<b>68,991,654</b>	<b>1.00</b>	<b>68,991,654</b>
Portfolio	<b>Grand Total</b>	<b>1,338,737,317</b>	<b>1.07</b>	<b>1,427,837,880</b>	<b>0.99</b>	<b>1,406,752,002</b>

Note: Programs that verified gross and net kWh savings include carryover savings are Midstream/Upstream, Retail Online, Small Business, Single Family Upgrades and Product Distribution.

\* The program-level NTG values shown are calculated as Verified Net/Verified Gross. The program-level analysis typically used measure-level deemed NTG values, which are listed here: <https://www.ilsag.info/evaluator-ntg-recommendations-for-2023>.

Guidehouse calculated the portfolio NTG ratio by dividing the total net savings by the total verified gross savings.

† Program did not report ex ante gross savings, and thus the evaluation did not calculate verified gross savings but only verified net savings.

\*\*The ASI kWh Purchase is not included as a program, but the savings are counted in this table as part of the residential sector kWh savings.

Source: Evaluation team analysis

**Table 3-2: Energy Savings by Program – Total Electric + Converted Other Fuel + Electrification**

Sector	Program	Ex Ante Gross Savings (kWh)	Verified Gross Realization Rate	Verified Gross Savings (kWh)	NTG*	Verified Net Savings (kWh)
Business & Public Sector	Small Business	232,510,311	1.00	233,649,049	0.98	227,894,346
Business & Public Sector	Incentives	225,459,978	0.94	212,661,884	0.92	195,491,153
Business & Public Sector	Midstream/Upstream	119,136,906	1.25	148,566,931	0.86	127,961,662
Business & Public Sector	Targeted Systems	99,141,453	0.96	94,947,654	0.86	81,694,225
Business & Public Sector	Behavior Bus/Pub	42,544,332	1.00	42,494,273	0.97	41,221,956
Business & Public Sector	New Construction - Bus/Pub	20,583,262	1.02	20,947,081	0.50	10,442,324
Business & Public Sector	Assessments	2,606,766	0.94	2,455,483	0.94	2,309,581
Business & Public Sector	Subtotal	741,983,007	1.02	755,722,355	0.91	687,015,247
Res & IE	Retail/Online	278,474,532	1.14	318,850,656	0.90	287,010,272
Res & IE	Product Distribution	283,484,624	1.09	308,706,153	1.00	308,497,484
Res & IE	Single-Family Upgrades	55,422,539	1.01	55,822,399	1.00	55,752,243
Res & IE	Multifamily Upgrades	51,716,724	1.06	54,797,679	0.99	54,465,051
Res & IE	Contractor / Midstream Rebates	48,989,361	0.99	48,580,766	0.82	39,748,236
Res & IE	New Construction - IE	3,846,712	1.07	4,112,309	1.00	4,112,309
Res & IE	Electric Homes New Construction	1,455,797	1.12	1,627,253	0.90	1,460,362
Res & IE	Behavior - Res/IE	-	-	-	-	82,444,452
Res & IE	ASI kWh Purchase**	877,768	1.00	877,947	0.90	791,055
Res & IE	Subtotal	724,268,058	1.10	793,375,160	1.05	834,281,463
Pilot	Industrial Energy Management Information Systems	1,734,366	0.97	1,686,744	0.80	1,349,395
Pilot	Heat Pump Water Heater Pilot	140,821	0.97	135,931	0.82	111,119
Pilot	Subtotal	1,875,187	0.97	1,822,675	0.80	1,460,514
Market Transformation	ENERGY STAR Retail Products Platform	3,460,734	2.78	9,610,560	1.00	9,610,560
Market Transformation	Subtotal	3,460,734	2.78	9,610,560	1.00	9,610,560
Voltage Optimization	Voltage Optimization	68,604,187	1.01	68,991,654	1.00	68,991,654
Voltage Optimization	Subtotal	68,604,187	1.01	68,991,654	1.00	68,991,654
Portfolio	Grand Total	1,540,191,173	1.06	1,629,522,405	0.98	1,601,359,437

Note: Programs that verified gross and net kWh savings include carryover savings are Midstream/Upstream, Retail Online, Small Business, Single Family Upgrades, and Product Distribution.

\* The ex ante are direct electric savings plus total converted gas and electrification savings. The verified savings are direct electric savings plus counted converted gas and electrification savings.

† The program-level NTG values shown are calculated as Verified Net/Verified Gross. The program-level analysis typically used measure-level deemed NTG values, which are listed here: <https://www.ilsag.info/evaluator-ntg-recommendations-for-2023>. Guidehouse calculated the portfolio NTG ratio by dividing the total net savings by the total verified gross savings.

‡ Program did not report ex ante gross savings, and thus the evaluation did not calculate verified gross savings but only verified net savings.

\*\*The ASI kWh Purchase is not included as a program, but the savings are counted in this table as part of the residential sector kWh savings.

Source: Evaluation team analysis

Table 3-3 breaks down the Res/IE programs and show IE programs savings, including savings from electric, other fuel counted and electrification savings.

**Table 3-3: Energy Savings by IE Program – Total Electric + Converted Other Fuel + Electrification**

Sector	Program	Ex Ante Gross Savings (kWh)	Verified Gross Realization Rate	Verified Gross Savings (kWh)	NTG*	Verified Net Savings (kWh)
Res & IE	Product Distribution	279,188,680	1.09	303,131,897	1.00	303,131,897
Res & IE	Retail/Online	208,064,350	1.03	214,279,929	0.99	212,082,202
Res & IE	Single-Family Upgrades	55,779,214	0.99	55,254,823	1.00	55,254,823
Res & IE	Multifamily Upgrades	48,607,551	1.01	49,102,389	1.00	49,102,389
Res & IE	Contractor / Midstream Rebates	11,026,829	1.00	11,028,382	0.83	9,184,682
Res & IE	New Construction - IE	3,846,712	1.07	4,112,309	1.00	4,112,309
Portfolio	Grand Total	606,513,336	1.03	625,881,347	1.00	623,683,619

Note: Programs that verified gross and net kWh savings include carryover savings are Midstream/Upstream, Retail Online, and Product Distribution.

\* The ex ante are direct electric savings plus total converted other fuel and electrification savings. The verified savings are direct



electric savings plus counted converted gas and electrification savings.

† The program-level NTG values shown are calculated as Verified Net/Verified Gross. The program-level analysis typically used measure-level deemed NTG values, which are listed here: <https://www.ilsag.info/evaluator-ntg-recommendations-for-2023>.

Guidehouse calculated the portfolio NTG ratio by dividing the total net savings by the total verified gross savings.

Source: Evaluation team analysis

Table 3-4 breaks down the programs that had carryover electric and peak demand savings from measures sold or incented in CY2021 and CY2022 that were installed in CY2023.

**Table 3-4: Carryover Energy Savings by Program**

Savings Type	Sector	Program	Verified Gross Carryover	NTG*	Verified Net Carryover
Energy (kWh)	Business & Public Sector	Midstream/Upstream	28,569,820	0.78	22,373,371
Energy (kWh)	Business & Public Sector	Small Business	1,094,017	0.97	1,056,219
Energy (kWh)	Res & IE	Product Distribution	25,241,792	1.00	25,172,528
Energy (kWh)	Res & IE	Retail/Online	51,288,514	0.60	30,946,120
Energy (kWh)	Res & IE	Single-Family Upgrades	133,185	0.84	111,751
Energy (kWh)	Portfolio	Total	106,327,329	0.75	79,659,988
Peak Demand (kW)	Business & Public Sector	Midstream/Upstream	6,551	0.78	5,132
Peak Demand (kW)	Business & Public Sector	Small Business	269	0.97	260
Peak Demand (kW)	Res & IE	Product Distribution	2,963	1.00	2,956
Peak Demand (kW)	Res & IE	Retail/Online	6,617	0.60	3,950
Peak Demand (kW)	Portfolio	Total	16,400	0.75	12,297

\* The program-level NTG values shown are calculated as Verified Net/Verified Gross. The program-level analysis typically used measure-level deemed NTG values, which are listed here: <https://www.ilsag.info/evaluator-ntg-recommendations-for-2023>.

Source: Evaluation team analysis

Table 3-5 shows total summer peak demand savings by program.

**Table 3-5: Summer Peak Demand Savings by Program**

Sector	Program	Ex Ante Gross Savings (kW)	Verified Gross Realization Rate	Verified Gross Savings (kW)	NTG*	Verified Net Savings (kW)
Business & Public Sector	Small Business	44,719	1.01	44,991	0.98	43,888
Business & Public Sector	Incentives	40,640	0.96	39,204	0.94	36,801
Business & Public Sector	Midstream/Upstream	25,674	1.26	32,425	0.86	27,905
Business & Public Sector	Targeted Systems	8,024	1.30	10,445	0.84	8,744
Business & Public Sector	New Construction - Bus/Pub	2,400	1.02	2,437	0.52	1,267
Business & Public Sector	Assessments	-	-	-	-	-
Business & Public Sector	Behavior Bus/Pub	-	-	-	-	-
Business & Public Sector	Subtotal	121,456	1.07	129,501	0.92	118,606
Res & IE	Product Distribution	35,258	1.03	36,248	1.00	36,233
Res & IE	Retail/Online	97,906	0.29	28,102	0.86	24,119
Res & IE	Single-Family Upgrades	2,610	1.00	2,609	1.00	2,599
Res & IE	Multifamily Upgrades	2,351	1.02	2,408	0.98	2,367
Res & IE	Contractor / Midstream Rebates	1,950	0.93	1,814	0.81	1,467
Res & IE	New Construction - IE	168	0.95	159	1.00	159
Res & IE	Electric Homes New Construction	49.00	0.85	41.50	0.90	37.24
Res & IE	Behavior - Res/IE	-	-	-	-	14,230
Res & IE	ASI kWh Purchase**	419	1.00	420	0.90	377
Res & IE	Subtotal	140,711	0.51	71,802	1.14	81,589
Pilot	Heat Pump Water Heater Pilot	6.67	0.16	1.05	0.80	0.84
Pilot	Industrial Energy Management Information Systems	-	-	-	-	-
Pilot	Subtotal	6.67	0.16	1.05	0.80	0.84
Market Transformation	ENERGY STAR Retail Products Platform	-	-	1,449	1.00	1,449
Market Transformation	Subtotal	-	-	1,449	1.00	1,449
Voltage Optimization	Voltage Optimization	12,366	1.01	12,456	1.00	12,456
Voltage Optimization	Subtotal	12,366	1.01	12,456	1.00	12,456
Portfolio	Grand Total	274,540	0.78	215,209	0.99	214,101

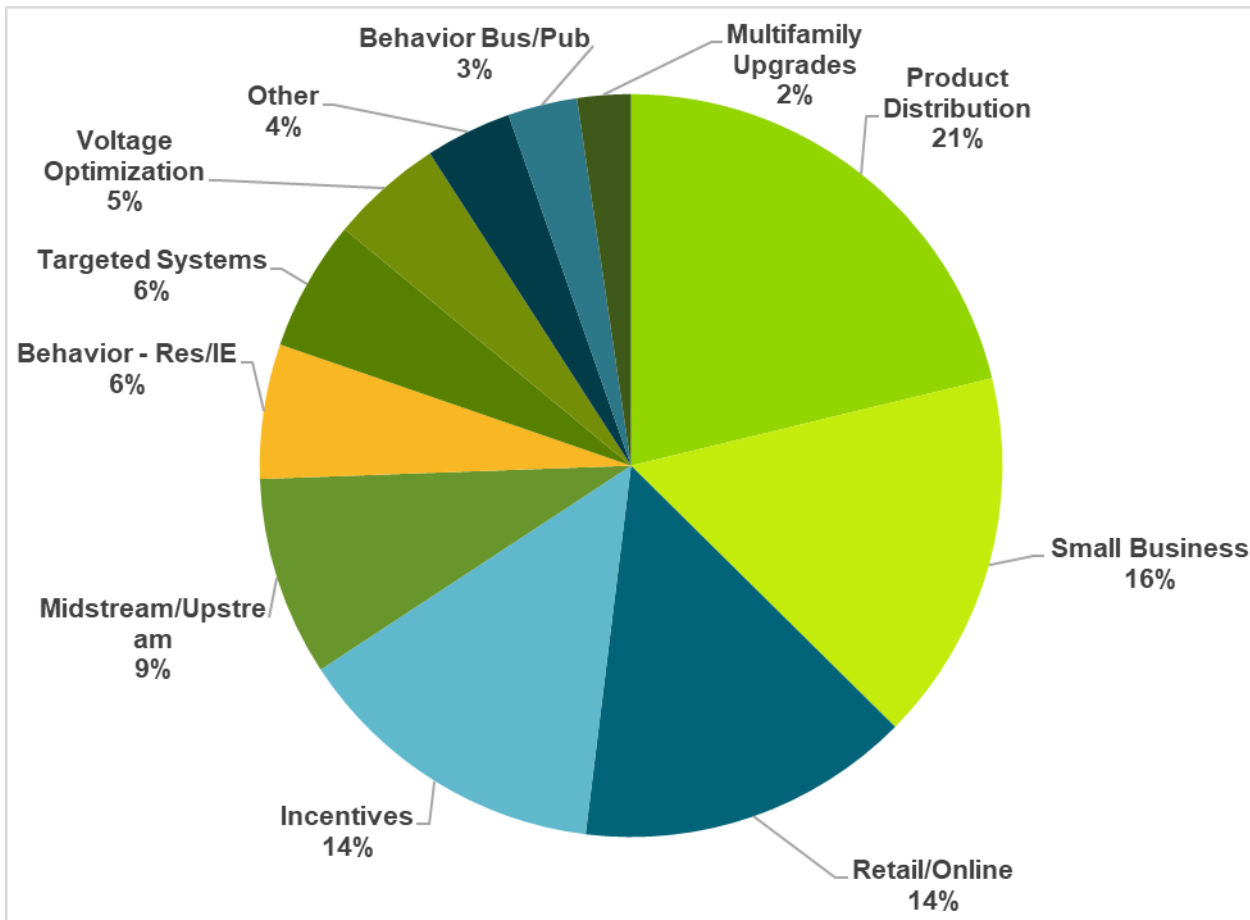
\* The program-level NTG values shown in this table is calculated as Verified Net/Verified Gross. The program-level analysis typically used measure-level deemed NTG values, which are listed here: <https://www.ilsag.info/evaluator-ntg-recommendations-for-2023>.

Programs without ex ante gross or verified gross values were excluded from the calculation of the portfolio realization rate and NTG. These programs are typically those where consumption data analysis is used to calculate net savings directly.  
 \*\*The ASI kWh Purchase is not included as a program, but the savings are counted in this table as part of the residential sector kWh savings.

Source: Evaluation team analysis

Figure 3-1 shows energy savings for the CY2023 programs with highest net savings impact.

**Figure 3-1. Net Energy Savings by Program – Electric Only**



Source: Evaluation team analysis



Table 3-6 shows the net savings compared to goal by CY2023 programs.

**Table 3-6: Comparing Electric Net Goals to Actual Achieved by CY2023 Program**

Sector	Program	Verified Net Electric Savings (kWh)	2023 Original Plan Savings Goal (kWh)	Implementation Plan Savings Goal (kWh)	Verified Net over Original Plan	Verified Net over Implementation Plan
Business & Public Sector	Small Business	227,894,346	231,506,667	212,542,991	0.98	1.07
Business & Public Sector	Incentives	195,436,486	207,613,821	216,562,302	0.94	0.90
Business & Public Sector	Midstream/Upstream	122,085,232	78,364,374	81,375,059	1.56	1.50
Business & Public Sector	Targeted Systems	81,694,225	100,730,684	92,153,808	0.81	0.89
Business & Public Sector	Behavior Bus/Pub	41,221,956	41,777,000	40,173,627	0.99	1.03
Business & Public Sector	New Construction - Bus/Pub	10,442,324	11,118,269	9,080,630	0.94	1.15
Business & Public Sector	Assessments	2,309,581	3,729,028	4,107,121	0.62	0.56
Business & Public Sector	Subtotal	681,084,151	674,839,843	655,995,538	1.01	1.04
Res & IE	Product Distribution	298,581,053	222,142,758	273,108,740	1.34	1.09
Res & IE	Retail/Online	204,499,758	175,860,647	159,195,200	1.16	1.28
Res & IE	Behavior - Res/IE	82,444,452	65,212,000	63,561,000	1.26	1.30
Res & IE	Multifamily Upgrades	33,044,033	22,355,358	28,360,392	1.48	1.17
Res & IE	Contractor / Midstream Rebates	13,054,563	2,676,000	9,560,000	4.88	1.37
Res & IE	Single-Family Upgrades	11,842,186	17,666,000	13,091,100	0.67	0.90
Res & IE	New Construction - IE	1,102,724	1,072,000	870,000	1.03	1.27
Res & IE	Electric Homes New Construction	335,982	1,077,000	218,000	0.31	1.54
Res & IE	ASI kWh Purchase**	791,055	-	1,035,000	-	0.76
Res & IE	Subtotal	645,695,806	508,061,763	548,999,432	1.27	1.18
Pilot	Industrial Energy Management Information Systems	1,349,395	-	-	-	-
Pilot	Heat Pump Water Heater Pilot	20,436	-	-	-	-
Pilot	Subtotal	1,369,831	-	-	-	-
Market Transformation	ENERGY STAR Retail Products Platform	9,610,560	-	-	-	-
Market Transformation	Subtotal	9,610,560	-	-	-	-
Voltage Optimization	Voltage Optimization	68,991,654	114,704,000	114,704,000	0.60	0.60
Voltage Optimization	Subtotal	68,991,654	114,704,000	114,704,000	0.60	0.60
Other	Lighting Carryover	79,659,988	53,000,000	83,736,000	1.50	0.95
Other	Therm Conversion	154,685,034	154,685,000	154,685,000	1.00	1.00
Other	Electrification	39,922,402	23,540,000	25,830,585	1.70	1.55
Portfolio	Grand Total	1,681,019,426	1,528,830,606	1,583,950,555	1.10	1.06

Note: Carryover and therm conversion are in separate rows in this table so sector-level totals will not match tables where they are incorporated in the sector total.

\*\*The ASI kWh Purchase is not included as a program, but the savings are counted in this table as part of the residential sector kWh savings.

Source: Goals values are from the ComEd - CY2023 Q4 Statewide Quarterly Report; ICC approved plan compliance filing (Commission's Final Order approving the EE Plan. For Section 8-104 programs); evaluation team analysis.

## 4. Savings by Measure

Lighting measures contributed the most energy and peak demand savings to the portfolio by a substantial margin as shown in the end-use type categories in Table 4-1, Table 4-2, and Figure 4-1.

**Table 4-1: Energy Savings by Measure Category – Electric Only**

End Use Type	Ex Ante Gross Savings (kWh)	Verified Gross Savings (kWh)	Verified Net Savings (kWh)
Lighting	809,444,391	911,778,525	864,010,447
Other	236,618,617	228,646,148	188,789,269
Shell	78,974,916	77,279,846	70,565,218
Voltage Optimization	68,604,187	68,991,654	68,991,654
HVAC	51,585,400	48,513,675	44,322,249
Refrigeration	28,116,320	28,116,483	27,352,087
Appliances	22,205,966	26,342,726	23,368,457
Consumer Electronics	21,189,695	21,160,028	20,896,067
Hot Water	8,493,476	7,928,017	7,690,763
EMS & BAS	8,120,512	3,662,094	3,259,264
Compressed Air	3,292,653	3,287,758	3,197,720
Food Service Equipment	1,577,532	1,647,083	1,409,541
Air Compressor	513,653	483,843	454,813
Behavior	-	-	82,444,452
Thermostatic Radiator Valve	-	-	-
<b>Total</b>	<b>1,338,737,317</b>	<b>1,427,837,880</b>	<b>1,406,752,002</b>

Note: The verified savings in this table include secondary electric energy (kWh) savings from water supply and wastewater treatment plants for measures claimed by ComEd. The verified savings account for electric heating penalties, where applicable.

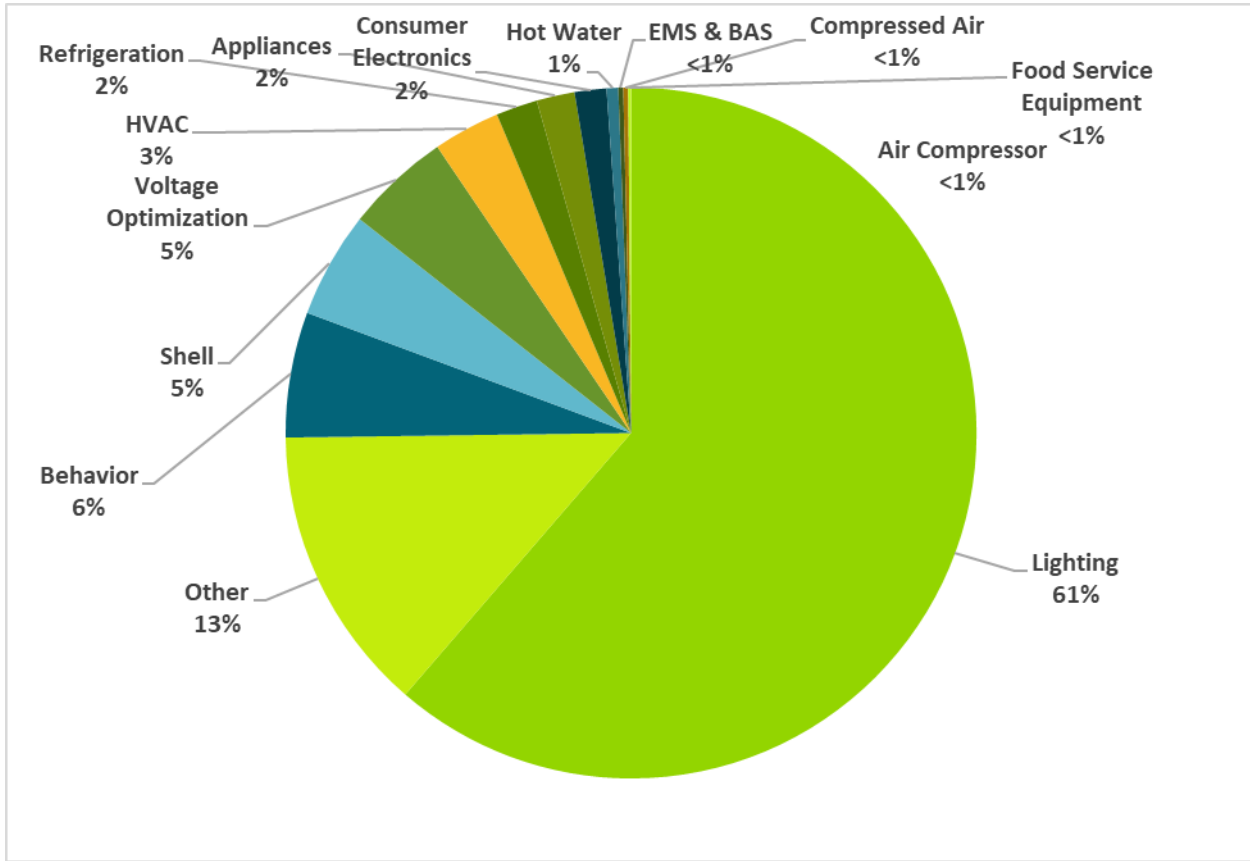
Source: Evaluation team analysis

**Table 4-2: Summer Peak Demand Savings by Measure Category**

End Use Type	Ex Ante Gross Savings (kW)	Verified Gross Savings (kW)	Verified Net Savings (kW)
Lighting	129,878	157,051	148,508
Other	19,030	20,873	15,908
Voltage Optimization	12,366	12,456	12,456
HVAC	8,707	8,462	7,535
Shell	93,326	4,578	4,325
Appliances	2,663	3,974	3,496
Refrigeration	2,714	2,714	2,641
Consumer Electronics	2,497	2,303	2,278
Hot Water	2,360	1,792	1,772
Compressed Air	792	790	769
Food Service Equipment	205	215	182
Air Compressor	-	-	-
Behavior	-	-	14,230
EMS & BAS	-	-	-
Thermostatic Radiator Valve	-	-	-
<b>Grand Total</b>	<b>274,540</b>	<b>215,209</b>	<b>214,101</b>

Source: Evaluation team analysis

**Figure 4-1. Net Energy Savings by End-use Type – Electric Only**



Source: Evaluation team analysis

Table 4-3 shows the end use measure savings by magnitude of impact in the respective portfolio sector.

**Table 4-3: Energy Savings by Measure Category and Sector**

Sector	End Use Type	Verified Gross Savings (kWh)	Verified Net Savings (kWh)	Verified Net Savings (kWh from Therms/Gallons)	Verified Net Savings (kWh from Electrification)	Verified Net Savings Total (kWh)	Percent Impact
Business & Public Sector	Lighting	474,850,078	448,542,704	-	-	448,542,704	65.3%
Business & Public Sector	Other	226,926,002	187,410,153	-	5,931,096	193,341,249	28.1%
Business & Public Sector	Refrigeration	27,936,257	27,171,860	-	-	27,171,860	4.0%
Business & Public Sector	HVAC	9,094,050	8,807,922	-	-	8,807,922	1.3%
Business & Public Sector	EMS & BAS	3,662,094	3,259,264	-	-	3,259,264	0.5%
Business & Public Sector	Compressed Air	3,287,758	3,197,720	-	-	3,197,720	0.5%
Business & Public Sector	Food Service Equipment	1,647,083	1,409,541	-	-	1,409,541	0.2%
Business & Public Sector	Consumer Electronics	791,300	711,456	-	-	711,456	0.1%
Business & Public Sector	Air Compressor	483,843	454,813	-	-	454,813	0.1%
Business & Public Sector	Hot Water	123,823	118,717	-	-	118,717	0.0%
Business & Public Sector	Subtotal	748,802,288	681,084,151	-	5,931,096	687,015,247	100.0%
Res & IE	Lighting	436,928,447	415,467,743	-	-	415,467,743	49.8%
Res & IE	Shell	77,279,846	70,565,218	120,478,273	-	191,043,491	22.9%
Res & IE	HVAC	39,419,625	35,514,327	21,843,029	33,537,591	90,894,947	10.9%
Res & IE	Behavior	-	82,444,452	-	-	82,444,452	9.9%
Res & IE	Consumer Electronics	20,368,728	20,184,611	-	-	20,184,611	2.4%
Res & IE	Hot Water	7,778,648	7,551,610	12,093,591	268,584	19,913,785	2.4%
Res & IE	Appliances	16,732,166	13,757,897	48,795	94,448	13,901,141	1.7%
Res & IE	Thermostatic Radiator Valve	-	-	221,345	-	221,345	0.0%
Res & IE	Refrigeration	180,227	180,227	-	-	180,227	0.0%
Res & IE	Other	33,403	29,721	-	-	29,721	0.0%
Res & IE	Subtotal	598,721,089	645,695,806	154,685,034	33,900,623	834,281,463	100.0%
Pilot	Other	1,686,744	1,349,395	-	-	1,349,395	92.4%
Pilot	Hot Water	25,545	20,436	-	90,682	111,119	7.6%
Pilot	Subtotal	1,712,289	1,369,831	-	90,682	1,460,514	100.0%
Market Transformation	Appliances	9,610,560	9,610,560	-	-	9,610,560	100.0%
Market Transformation	Subtotal	9,610,560	9,610,560	-	-	9,610,560	100.0%
Voltage Optimization	Voltage Optimization	68,991,654	68,991,654	-	-	68,991,654	100.0%
Voltage Optimization	Subtotal	68,991,654	68,991,654	-	-	68,991,654	100.0%
Portfolio	Total	1,427,837,880	1,406,752,002	154,685,034	39,922,402	1,601,359,437	100.0%

Note: The verified savings in this table include secondary electric energy (kWh) savings from water supply and wastewater treatment plants for measures claimed by ComEd. The verified savings account for electric heating penalties, where applicable. \* Percent impact represent the verified net savings total contribution of each end-use within the sector, expressed in percentage. Where applicable, the verified net savings totals include electric kWh plus converted kWh that ComEd can claim towards goal. Source: Evaluation team analysis

Nine (9) programs include measures that save water. That reduction in water produces secondary kWh savings from water supply and wastewater treatment. Table 4-4 shows the secondary measure level savings by program. The savings in this table are included within the electricity savings in the previous tables in this section.

**Table 4-4: Secondary Energy Savings from Water Reduction by Measure – Electric Only**

Sector	Program	End Use Type	Savings Category	Ex Ante Annual Water Savings (gallons)	Verified Annual Water Savings (gallons)	Ex Ante Gross Savings (kWh)	Verified Gross Realization Rate (RR <sub>water</sub> )	Verified Gross Savings (kWh)	NTG*	Verified Net Savings (kWh)
Business & Public Sector	New Construction - Bus/Pub	Other	Other Non-lighting	15,577,694	39,235,972	78,044	2.52	196,572	0.50	97,692
Business & Public Sector	Small Business	Hot Water	Low Flow Showerhead	359,145	359,145	1,799	1.00	1,799	0.97	1,745
Business & Public Sector	Midstream/Upstream	Food Service Equipment	Dishwasher	264,204	404,460	1,324	1.53	2,026	0.85	1,731
Business & Public Sector	Midstream/Upstream	Food Service Equipment	Steam Cooker	767,903	657,450	1,974	0.86	1,690	0.87	1,465
Business & Public Sector	Small Business	Hot Water	Kitchen & Bathroom Faucet Aerator	296,967	296,967	1,488	1.00	1,488	0.97	1,448
Business & Public Sector		Subtotal		17,265,912	40,953,993	84,629	2.41	203,576	0.51	104,081
Res & IE	Retail/Online	Hot Water	Low Flow Showerhead	2,377	77,116,641	12	32,438.34	386,354	0.86	331,274
Res & IE	Product Distribution	Hot Water	Shower Timer	60,121,121	61,500,216	-	-	308,119	1.00	308,119
Res & IE	Product Distribution	Hot Water	Low Flow Showerhead	58,759,098	60,788,056	-	-	304,548	1.00	304,548
Res & IE	Product Distribution	Hot Water	Kitchen & Bathroom Faucet Aerator	22,532,771	27,127,032	-	-	135,906	1.00	135,906
Res & IE	Retail/Online	Appliances	Clothes Washer	29,572,937	36,853,091	148,160	1.25	184,635	0.68	125,381
Res & IE	Product Distribution	Hot Water	Kits	24,104,983	24,104,970	-	-	120,761	1.00	120,761
Res & IE	Single-Family Upgrades	Hot Water	Kitchen & Bathroom Faucet Aerator	6,999,663	12,996,476	35,069	1.86	65,115	1.01	65,850
Res & IE	Single-Family Upgrades	Hot Water	Low Flow Showerhead	4,524,100	7,635,846	22,666	1.69	38,256	1.01	38,734
Res & IE	Multifamily Upgrades	Hot Water	Low Flow Showerhead	1,901,347	1,913,674	-	-	9,588	1.00	9,601
Res & IE	New Construction - IE	Hot Water	Hot Water Conservation	1,928,561	1,928,561	5,767	1.00	5,767	1.00	5,767
Res & IE	Multifamily Upgrades	Hot Water	Shower Timer	956,003	956,003	-	-	4,790	0.99	4,720
Res & IE	Multifamily Upgrades	Hot Water	Kitchen & Bathroom Faucet Aerator	788,522	790,626	-	-	3,961	1.00	3,980
Res & IE	Electric Homes New Construction	Hot Water	Hot Water Conservation	564,296	568,163	2,827	1.01	2,846	0.90	2,555
Res & IE	New Construction - IE	Appliances	Efficient Appliances	417,252	392,404	1,276	0.94	1,200	1.00	1,200
Res & IE	Electric Homes New Construction	Appliances	Efficient Appliances	129,956	129,956	651	1.00	651	0.90	584
Res & IE	Retail/Online	Consumer Electronics	Low Flow Showerhead	-	8,416	-	-	42	0.68	29
Res & IE	Retail/Online	Appliances	Dishwasher	-	4,661	-	-	23	0.62	14
Res & IE	Retail/Online	Hot Water	Kitchen & Bathroom Faucet Aerator	2,377	2,787	12	1.17	14	0.80	11
Res & IE	Single-Family Upgrades	Appliances	Clothes Washer	66,886	67,061	-	-	-	-	-
Res & IE	Single-Family Upgrades	HVAC	Advanced Thermostat	2,119	-	-	-	-	-	-
Res & IE	Single-Family Upgrades	Hot Water	Shower Flow Reducer	219,361	373,786	-	-	-	-	-
Res & IE		Subtotal		213,593,732	315,258,425	216,441	7.27	1,572,577	0.93	1,459,034
Market Transformation	ENERGY STAR Retail Products Platform	Appliances	Clothes Washer	-	53,395,600	-	-	267,512	1.00	267,512
Market Transformation		Subtotal		-	53,395,600	-	-	267,512	1.00	267,512
Portfolio		Total		230,859,644	409,608,018	301,070	6.79	2,043,665	0.90	1,830,626

Note: The savings in this table reflect only secondary electric energy (kWh) savings from water supply and wastewater treatment plants for measures claimed by ComEd, not those claimed by gas utilities.

\* A deemed value. Source is to be found on the IL SAG web site here: <https://www.ilsag.info/evaluator-ntg-recommendations-for-2023>.

Source: ComEd tracking data and evaluation team analysis

## 5. Total Resource Cost Savings and Lifetime Savings Summary

Table 5-1 provides the WAML and estimated lifetime savings from the verified first year gross and net savings (excluding converted other fuel savings measures). It includes the total cost by program and cost per unit. Table 5-2 shows the Total Resource Cost (TRC) input table. It includes only the cost-effectiveness analysis savings inputs.

**Table 5-1: Verified First Year and Lifetime Savings and Acquisition Costs – Electric Only**

Sector	Program	Verified Gross Realization Rate	First Year Annual Energy Savings (kWh) - Gross	First Year Peak Demand Savings (kW) - Gross	NTG*	First Year Annual Energy Savings (kWh) - Net	First Year Peak Demand Savings (kW) - Net	Lifetime Savings (kWh) - Net	First Year Cost per First Year Net Annual Savings	First Year Cost per Net Lifetime Savings	Program Costs	Units#	Units Definition	Weighted Average Measure Life
Business & Public Sector	Small Business	1.00	233,649,049	44,991	0.98	227,894,346	43,888	2,902,350,098	0.39	0.03	89,023,653	5,827	Projects	13.1
Business & Public Sector	Incentives	0.94	212,558,739	39,204	0.92	195,436,486	36,801	2,716,726,762	0.36	0.03	71,070,462	2,702	Projects	14.2
Business & Public Sector	Midstream/Upstream	1.26	141,750,009	32,425	0.86	122,085,232	27,905	1,566,918,012	0.15	0.01	17,928,529	1,362,077	Measures	13.2
Business & Public Sector	Targeted Systems	0.96	94,947,654	10,445	0.86	81,694,225	8,744	617,059,570	0.36	0.05	29,656,739	703	Projects	7.7
Business & Public Sector	Behavior Bus/Pub	1.00	42,494,273	-	0.97	41,221,956	-	288,553,690	0.20	0.03	8,247,989	76.00	Projects	7.0
Business & Public Sector	New Construction - Bus/Pub	1.02	20,947,081	2,437	0.50	10,442,324	1,267	181,696,446	0.42	0.02	4,397,303	87.00	Projects	17.4
Business & Public Sector	Assessments	0.94	2,455,483	-	0.94	2,309,581	-	8,316,215	0.53	0.15	1,225,003	62.00	Projects	3.6
Business & Public Sector	Subtotal	1.02	748,802,288	129,501	0.91	681,084,151	118,606	8,281,620,792	0.33	0.03	221,549,678	-	-	12.5
Res & IE	Product Distribution	1.09	298,789,722	36,248	1.00	298,581,053	36,233	2,415,609,366	0.06	0.01	18,758,046	5,752,892	Measures	8.8
Res & IE	Retail/Online	1.21	236,334,570	28,102	0.87	204,499,758	24,119	2,144,085,171	0.15	0.01	29,852,090	3,619,570	Measures	13.0
Res & IE	Multifamily Upgrades	1.09	33,376,661	2,408	0.99	33,044,033	2,367	426,798,392	1.01	0.08	33,348,798	7,477,008	Measures	14.5
Res & IE	Contractor / Midstream Rebates	0.97	15,952,744	1,814	0.82	13,054,563	1,467	171,214,859	0.26	0.02	3,384,067	8,839	Measures	15.8
Res & IE	Single-Family Upgrades	1.02	11,912,342	2,609	0.99	11,842,186	2,599	129,227,661	2.58	0.24	30,520,118	6,171,963	Measures	17.8
Res & IE	New Construction - IE	1.15	1,102,724	159	1.00	1,102,724	159	17,520,340	0.92	0.06	1,018,151	408,734	Measures	15.0
Res & IE	Electric Homes New Construction	1.55	374,379	41.50	0.90	335,982	37.24	4,541,660	0.61	0.05	205,263	418	Measures	15.2
Res & IE	Behavior - Res/IE	-	-	-	-	82,444,452	14,230	291,987,668	0.08	0.02	6,257,036	1,434,272	Household	10.0
Res & IE	ASI kWh Purchase**	1.00	877,947	420	0.90	791,055	377	15,115,464	-	-	-	1,625,516	Measures	20.0
Res & IE	Subtotal	1.13	598,721,089	71,802	1.08	645,695,806	81,589	5,616,100,580	0.19	0.02	123,343,568	-	-	11.2
Pilot	Industrial Energy Management Information Systems	0.97	1,686,744	-	0.80	1,349,395	-	6,746,976	-	-	-	4.00	Projects	5.0
Pilot	Heat Pump Water Heater Pilot	1.09	25,545	1.05	0.80	20,436	0.84	306,544	-	-	-	33.00	Measures	15.0
Pilot	Subtotal	0.97	1,712,289	1.05	0.80	1,369,831	0.84	7,053,520	-	-	-	-	-	5.2
Market Transformation	ENERGY STAR Retail Products Platform	2.78	9,610,560	1,449	1.00	9,610,560	1,449	137,797,829	-	-	-	38,051	Measures	14.3
Market Transformation	Subtotal	2.78	9,610,560	1,449	1.00	9,610,560	1,449	137,797,829	-	-	-	-	-	14.3
Voltage Optimization	Voltage Optimization	1.01	68,991,654	12,456	1.00	68,991,654	12,456	1,034,874,812	-	-	-	157	Feeders	15.0
Voltage Optimization	Subtotal	1.01	68,991,654	12,456	1.00	68,991,654	12,456	1,034,874,812	-	-	-	-	-	15.0
Portfolio	Grand Total	-	1,427,837,880	215,209	0.99	1,406,752,002	214,101	15,077,447,533	0.25	0.02	344,893,246	-	-	12.3

Note: Note: The lifetime net savings are equal to values from the electric CPAS Table 2-3.

Source: Cost values are from the ComEd - CY2023 Q4 Statewide Quarterly Report; Evaluation team analysis.

**Table 5-2: Total Resource Cost Savings Summary**

Sector	Program	WAML (years)	Verified Gross Annual Water Savings (Gallons)	Verified Gross Electric Energy Savings (kWh)	Verified Gross Peak Demand Reduction (kW)	Verified Gross Gas Savings (Therms)	Verified Gross Propane Savings (Fuel Switch, Therms)	Verified Gross Electrification (kW)	Verified Gross Secondary Savings due to Water Reduction (kWh)	Gross Heating Penalty (kWh)*	Gross Gas Heating Penalty (Therms)†	Gross Propane Heating Penalty (Therms)†	NTG (kWh)	NTG (kW)	NTG (Therms)	Verified Net Electric Energy Savings (kWh)	Verified Net Peak Demand Reduction (kW)	Verified Net Gas Savings (Therms)	Verified Net Propane Savings (Fuel Switch, Therms)	Verified Net Electrification (kW)	Net Secondary Savings due to Water Reduction (kWh)	Net Heating Penalty (kWh)	Net Gas Heating Penalty (Therms)	Net Propane Heating Penalty (Therms)	
Business & Public Sector	Small Business	13.11	656,112	233,645,762	44,991	288,936	-	-	3,287	-474,133	-2,007,845	-	0.98	0.98	0.00	227,891,153	43,888	286,027	-	-	3,194	-462,572	-1,959,356	0	
Business & Public Sector	Incentives	14.19	44.00	212,558,739	39,204	1,220,694	-	103,145	-	-722,823	-1,526,266	-	0.92	0.94	0.00	195,436,486	36,801	1,086,528	-	54,667	-	-	-1,499,659	0	
Business & Public Sector	Midstream/Upstream	13.20	1,061,910	141,746,292	32,425	-	-	6,816,922	3,717	-	-1,925,606	-	0.86	0.86	-	122,082,037	27,905	-	-	5,876,429	3,196	-	-1,658,412	0	
Business & Public Sector	Targeted Systems	7.68	-	94,947,654	10,445	73,276	-	-	-	-	-	-	0.86	0.84	0.00	81,694,225	8,744	69,921	-	-	-	-	-	0	
Business & Public Sector	Behavior Bus/Pub	7.00	-	42,494,273	-	-	-	-	-	-	-	-	0.97	-	-	41,221,956	-	-	-	-	-	-	-	-	0
Business & Public Sector	New Construction - Bus/Pub	17.40	39,235,972	20,750,509	2,437	10,963	-	-	196,572	-63,341	-10,949	-	0.50	0.52	0.00	10,344,633	1,267	4,714	-	-	97,692	-32,056	-4,708	0	
Business & Public Sector	Assessments	3.60	-	2,455,483	-	2,223	-	-	-	-	-	-	0.94	-	0.01	2,309,581	-	2,090	-	-	-	-	-	-	0
Res & IE	Product Distribution	8.84	173,520,274	297,920,388	36,248	356,734	-	-	869,334	-	-2,862,954	-	1.00	1.00	0.00	297,711,719	36,233	356,734	-	-	869,334	-	-2,860,986	0	
Res & IE	Retail/Online	12.99	113,985,596	235,763,501	28,102	11,747,740	-	40,884	571,069	-	-3,215,476	-	0.87	0.86	0.00	204,043,049	24,119	10,352,446	-	35,312	456,709	-	-2,771,025	0	
Res & IE	Contractor / Midstream Rebates	15.83	-	15,952,744	1,815	111,744	-	32,628,021	-	-	-	-	0.82	0.81	0.00	13,054,563	1,468	101,518	-	26,693,673	-	-	-	-	0
Res & IE	Multifamily Upgrades	14.48	7,291,744	33,358,323	2,408	697,318	-	1,920,629	18,338	-3,870	-58,400	-	0.99	0.98	0.00	33,025,732	2,367	697,318	-	1,920,629	18,301	-3,870	-56,791	0	
Res & IE	Single-Family Upgrades	17.75	21,040,504	11,808,971	2,609	1,493,871	1,210	2,193,550	103,371	-91,899	-83,693	-386	1.00	1.00	0.00	11,737,603	2,599	1,489,087	1,202	2,193,550	104,584	-91,899	-83,693	-386	
Res & IE	New Construction - IE	15.00	2,345,814	1,095,756	159	36,728	-	1,933,079	6,968	-	-5,926	-	1.00	1.00	0.00	1,095,756	159	36,728	-	1,933,079	6,968	-	-5,926	0	
Res & IE	Electric Homes New Construction	15.17	698,119	370,881	41.50	-	-	1,252,874	3,498	-2,631	-	-	0.90	0.90	-	332,843	37.24	-	-	1,124,379	3,139	-2,361	-	0	
Res & IE	Behavior - Res/IE	10.00	-	-	-	-	-	-	-	-	-	-	-	-	-	82,444,452	14,230	-	-	-	-	-	-	0	
Res & IE	ASI kWh Purchase**	20.00	-	877,947	420	-	-	-	-	-	-	-	0.90	0.90	-	791,055	377	-	-	-	-	-	-	0	
Pilot	Industrial Energy Management Information Systems	5.00	-	1,686,744	-	-	-	-	-	-	-	-	0.80	-	-	1,349,395	-	-	-	-	-	-	-	-	0
Pilot	Heat Pump Water Heater Pilot	15.00	-	25,545	1.05	-22	-	110,386	-	-22	-49	-	0.82	0.80	0	20,436	0.84	-17	-	90,682	-	-17	-41	0	
Market Transformation	ENERGY STAR Retail Products Platform	14.34	53,395,600	9,343,048	1,449	148,475	-	-	267,512	-	-	-	1.00	1.00	0.00	9,343,048	1,449	148,475	-	-	267,512	-	-	-	0
Voltage Optimization	Voltage Optimization	15.00	-	68,991,654	12,456	-	-	-	-	-	-	-	1.00	1.00	-	68,991,654	12,456	-	-	-	-	-	-	-	0
<b>Total</b>		-	12,254,132,316,887	1,425,794,216	215,210	16,188,682	1,210	46,999,491	2,043,665	1,358,719	11,697,163	-386	0.90	0.90	(0.01)	1,404,921,376	214,101	14,631,569	1,202	39,922,402	1,830,626	-592,776	10,900,596	-386	

Note: To avoid double counting, the verified gross kWh and net kWh used in the TRC analysis excludes secondary energy savings from water reduction measures. Table 5-2 represents the kWh direct savings from Table 3-1 minus those shown in Table 4-4. Savings from electrification are presented separately in this table and excluded from the direct.

\* Program kWh savings account for electric heating penalties, where applicable. The electric heating penalties columns show the magnitude of adjustments applied to the program savings.

† Other Fuel heating penalties represent the program therms heating penalties. These penalties are not required to be applied to the programs or portfolio savings.

Source: Evaluation team analysis.



## 6. High Impact Measures of CY2023

Table 6-1 through Table 6-6 provide the list of CY2023 high impact measures and the percentage of verified gross and net electric savings for the business, residential, and income eligible sectors. These tables include converted other fuel savings measures and electrification savings.

**Table 6-1: Summary Table of CY2023 High Impact Measures – Business Gross Impact**

Sector	High Impact Measure	End Use Type	First year kWh Savings (Verified Gross)	Weighted Average Measure Life*	Verified Gross Savings (kWh from Therms)	Lifetime Gross kWh (Verified)	Verified Gross Savings (kWh Total)	Percent 1st Year kWh	Cumulative Percent
Business	Interior & Exterior LED Fixtures	Lighting	241,736,091	13.8	-	3,337,461,759	241,736,091	29.3%	29.3%
Business	Standard LED Lamps	Lighting	145,326,431	12.4	-	1,795,214,148	145,326,431	17.6%	46.8%
Business	VO	Voltage Optimization	68,991,654	15.0	-	1,034,874,812	68,991,654	8.3%	55.2%
Business	Other Non-lighting	Other	60,013,112	13.3	-	798,171,733	60,013,112	7.3%	62.4%
Business	Occupancy Sensor & Other Controls	Lighting	47,718,409	14.7	-	700,158,584	47,718,409	5.8%	68.2%
Business	Compressor System	Other	44,654,297	6.8	-	301,595,523	44,654,297	5.4%	73.6%
Business	Strategic Energy Management	Other	42,494,273	7.0	-	297,459,912	42,494,273	5.1%	78.8%
Business	Carryover Lamps	Lighting	29,663,837	10.8	-	319,841,764	29,663,837	3.6%	82.4%
Business	High Performance HVAC Equipment	Other	27,509,818	19.3	-	530,842,297	27,509,818	3.3%	85.7%
Business	Virtual Commissioning	Other	27,172,605	7.3	-	198,360,019	27,172,605	3.3%	89.0%
Business	EC Motor for Cooler or Freezer	Refrigeration	20,709,245	14.3	-	296,632,609	20,709,245	2.5%	91.5%
Business	Freezer & Refrigerator	Other	10,318,396	13.3	-	136,968,979	10,318,396	1.2%	92.7%
Business	Electrification Fork Trucks	Other	6,816,922	15.0	-	102,253,832	6,816,922	0.8%	93.6%
Business	Specialty LED Lamps	Lighting	5,610,410	20.0	-	112,208,196	5,610,410	0.7%	94.2%
Business	LED Exit Signs, Channel Sign & Nightlight	Lighting	4,794,900	5.0	-	23,974,499	4,794,900	0.6%	94.8%
Business	Night Covers	Refrigeration	3,844,796	5.0	-	19,223,980	3,844,796	0.5%	95.3%
Business	Weather Stripping	Other	3,838,380	10.0	-	38,383,798	3,838,380	0.5%	95.7%
Business	EMS	EMS & BAS	3,662,094	15.0	-	54,931,413	3,662,094	0.4%	96.2%
Business	Industrial Systems	Other	3,451,446	20.0	-	68,998,415	3,451,446	0.4%	96.6%
Business	HVAC Control System & Maintenance	HVAC	3,010,186	9.3	-	28,129,565	3,010,186	0.4%	97.0%
Business	VFD	Other	2,778,661	15.0	-	41,679,908	2,778,661	0.3%	97.3%
Business	Variable Speed Drive	Compressed Air	2,251,232	13.0	-	29,266,017	2,251,232	0.3%	97.6%
Business	Advanced Thermostat	HVAC	2,191,372	10.5	-	23,031,586	2,191,372	0.3%	97.8%
Business	Anti-Sweat Heater Controls for Glass Door Cooler or Refrigerator	Refrigeration	2,136,116	10.0	-	21,361,156	2,136,116	0.3%	98.1%
Business	Standard LED Lamps	Other	2,132,804	15.0	-	31,992,067	2,132,804	0.3%	98.4%
Business	Building Operator Certification	Other	2,007,475	13.0	-	26,097,173	2,007,475	0.2%	98.6%
Business	Variable Speed Drive	Other	1,652,229	22.7	-	37,428,968	1,652,229	0.2%	98.8%
Business	Tune-Up	HVAC	1,445,929	3.0	-	4,337,786	1,445,929	0.2%	99.0%
Business	Compressor System	Compressed Air	1,036,526	10.2	-	10,587,326	1,036,526	0.1%	99.1%
Business	Battery Charger	Consumer Electronics	783,688	15.0	-	11,755,314	783,688	0.1%	99.2%
Business	Auto Closer for Walk-in Cooler or Freezer	Refrigeration	679,752	8.0	-	5,438,016	679,752	0.1%	99.3%
Business	Strip Curtain for Walk-In Coolers and Freezers	Refrigeration	566,348	4.0	-	2,265,392	566,348	0.1%	99.3%
Business	Broiler	Food Service Equipment	514,632	12.0	-	6,175,588	514,632	0.1%	99.4%
Business	Room & Central Air Conditioner	HVAC	487,130	15.0	-	7,306,944	487,130	0.1%	99.5%
Business	High Performance HVAC Equipment	HVAC	486,521	15.0	-	7,297,813	486,521	0.1%	99.5%
Business	Compressor System	Air Compressor	483,843	3.2	-	1,535,261	483,843	0.1%	99.6%
Business	Occupancy Sensor & Other Controls	HVAC	466,286	8.0	-	3,730,286	466,286	0.1%	99.6%
Business	Demand Controlled Ventilation	HVAC	397,769	10.0	-	3,977,692	397,769	0.0%	99.7%
Business	Packaged RTU Sealing	HVAC	338,384	5.0	-	1,691,918	338,384	0.0%	99.7%
Business	Deck Ovens	Food Service Equipment	298,345	12.0	-	3,580,139	298,345	0.0%	99.8%
Business	Steam Cooker	Food Service Equipment	272,270	12.0	-	3,267,242	272,270	0.0%	99.8%
Business	Waste Water Treatment	Other	257,751	13.0	-	3,350,763	257,751	0.0%	99.8%
Business	Ice Machine, Fryer, Combination & Convection Ovens	Food Service Equipment	245,251	11.8	-	2,885,680	245,251	0.0%	99.9%
Business	Variable Speed Drive	HVAC	241,225	15.0	-	3,618,378	241,225	0.0%	99.9%
Business	Advanced Power Strips	Other	179,042	7.0	-	1,253,291	179,042	0.0%	99.9%
Business	Freezer & Refrigerator	Food Service Equipment	160,231	12.0	-	1,922,766	160,231	0.0%	99.9%
Business	Non-Electrification Fork Trucks	Other	144,401	15.0	-	2,166,017	144,401	0.0%	99.9%
Business	Process Cooling & Heating	Other	87,483	4.3	-	380,026	87,483	0.0%	100.0%
Business	Griddle	Food Service Equipment	69,196	12.0	-	830,354	69,196	0.0%	100.0%
Business	Dishwasher	Food Service Equipment	56,598	17.9	-	1,012,924	56,598	0.0%	100.0%
Business	Other Non-lighting	Hot Water	49,499	2.0	-	98,999	49,499	0.0%	100.0%
Business	Low Flow Showerhead	Hot Water	46,692	10.0	-	466,924	46,692	0.0%	100.0%
Business	Kitchen & Bathroom Faucet Aerator	Hot Water	27,632	10.0	-	276,316	27,632	0.0%	100.0%
Business	Process Cooling & Heating	HVAC	25,395	5.0	-	126,977	25,395	0.0%	100.0%
Business	Demand Controlled Ventilation	Food Service Equipment	23,588	20.0	-	471,770	23,588	0.0%	100.0%



Sector	High Impact Measure	End Use Type	First year kWh Savings (Verified Gross)	Weighted Average Measure Life*	Verified Gross Savings (kWh from Therms)	Lifetime Gross kWh (Verified)	Gross kWh Savings (kWh Total)	Percent 1st Year kWh	Cumulative Percent
Business	Energy Efficient Hand Dryer	Other	22,844	10.0	-	228,445	22,844	0.0%	100.0%
Business	Other Non-lighting	Consumer Electronics	7,612	2.1	-	15,720	7,612	0.0%	100.0%
Business	Hot Food Holding Cabinets	Food Service Equipment	6,972	12.0	-	83,661	6,972	0.0%	100.0%
Business	Notched V Belts for HVAC Systems	HVAC	3,854	3.3	-	12,873	3,854	0.0%	100.0%
Business	High-Performance Windows	Other	873	25.0	-	21,823	873	0.0%	100.0%

Note: Cumulative percent is the cumulative sum of percent 1st year kWh achieved by the high impact measure. Percent 1st year kWh is the kWh total for the measure over the sum of kWh total for all measures (electric kWh plus counted kWh converted, where applicable). Business & Public Sector measure list include the Voltage Optimization and the pilot Upstream Commercial Food Service Equipment programs.

Source: Evaluation team analysis

**Table 6-2: Summary Table of CY2023 High Impact Measures – Business Net Impact**

Sector	High Impact Measure	End Use Type	First year kWh Savings (Verified Net)	Verified Net Savings (kWh from Therms)	Verified Net Savings (kWh Total)	Percent 1st Year kWh	Cumulative Percent
Business	Interior & Exterior LED Fixtures	Lighting	225,891,287	-	225,891,287	29.8%	29.8%
Business	Standard LED Lamps	Lighting	143,806,022	-	143,806,022	19.0%	48.8%
Business	VO	Voltage Optimization	68,991,654	-	68,991,654	9.1%	57.9%
Business	Occupancy Sensor & Other Controls	Lighting	46,490,419	-	46,490,419	6.1%	64.1%
Business	Strategic Energy Management	Other	41,221,956	-	41,221,956	5.4%	69.5%
Business	Other Non-lighting	Other	42,032,503	-	42,032,503	5.5%	75.1%
Business	Compressor System	Other	35,143,539	-	35,143,539	4.6%	79.7%
Business	Virtual Commissioning	Other	25,617,525	-	25,617,525	3.4%	83.1%
Business	Carryover Lamps	Lighting	23,429,590	-	23,429,590	3.1%	86.2%
Business	High Performance HVAC Equipment	Other	22,222,679	-	22,222,679	2.9%	89.1%
Business	EC Motor for Cooler or Freezer	Refrigeration	20,138,961	-	20,138,961	2.7%	91.8%
Business	Freezer & Refrigerator	Other	8,735,299	-	8,735,299	1.2%	92.9%
Business	Electrification Fork Trucks	Other	5,876,429	-	5,876,429	0.8%	93.7%
Business	Specialty LED Lamps	Lighting	4,592,648	-	4,592,648	0.6%	94.3%
Business	LED Exit Signs, Channel Sign & Nightlight	Lighting	4,332,738	-	4,332,738	0.6%	94.9%
Business	Weather Stripping	Other	3,738,109	-	3,738,109	0.5%	95.4%
Business	Night Covers	Refrigeration	3,733,003	-	3,733,003	0.5%	95.9%
Business	EMS	EMS & BAS	3,259,264	-	3,259,264	0.4%	96.3%
Business	Industrial Systems	Other	3,071,787	-	3,071,787	0.4%	96.7%
Business	HVAC Control System & Maintenance	HVAC	2,917,607	-	2,917,607	0.4%	97.1%
Business	Variable Speed Drive	Compressed Air	2,185,768	-	2,185,768	0.3%	97.4%
Business	Advanced Thermostat	HVAC	2,149,584	-	2,149,584	0.3%	97.7%
Business	Anti-Sweat Heater Controls for Glass Door Cooler or Refrigerator	Refrigeration	2,082,560	-	2,082,560	0.3%	97.9%
Business	Building Operator Certification	Other	2,007,475	-	2,007,475	0.3%	98.2%
Business	VFD	Other	1,861,545	-	1,861,545	0.2%	98.4%
Business	Variable Speed Drive	Other	1,470,484	-	1,470,484	0.2%	98.6%
Business	Tune-Up	HVAC	1,410,309	-	1,410,309	0.2%	98.8%
Business	Standard LED Lamps	Other	1,130,386	-	1,130,386	0.1%	99.0%
Business	Compressor System	Compressed Air	1,011,952	-	1,011,952	0.1%	99.1%
Business	Battery Charger	Consumer Electronics	704,301	-	704,301	0.1%	99.2%
Business	Auto Closer for Walk-in Cooler or Freezer	Refrigeration	664,452	-	664,452	0.1%	99.3%
Business	Strip Curtain for Walk-In Coolers and Freezers	Refrigeration	552,885	-	552,885	0.1%	99.4%
Business	Room & Central Air Conditioner	HVAC	473,824	-	473,824	0.1%	99.4%
Business	Compressor System	Air Compressor	454,813	-	454,813	0.1%	99.5%
Business	Occupancy Sensor & Other Controls	HVAC	453,444	-	453,444	0.1%	99.5%
Business	Broiler	Food Service Equipment	449,076	-	449,076	0.1%	99.6%
Business	High Performance HVAC Equipment	HVAC	423,566	-	423,566	0.1%	99.7%
Business	Demand Controlled Ventilation	HVAC	387,573	-	387,573	0.1%	99.7%
Business	Packaged RTU Sealing	HVAC	329,713	-	329,713	0.0%	99.7%
Business	Deck Ovens	Food Service Equipment	238,676	-	238,676	0.0%	99.8%
Business	Variable Speed Drive	HVAC	234,378	-	234,378	0.0%	99.8%
Business	Steam Cooker	Food Service Equipment	233,318	-	233,318	0.0%	99.8%
Business	Ice Machine, Fryer, Combination & Convection Ovens	Food Service Equipment	212,088	-	212,088	0.0%	99.9%
Business	Advanced Power Strips	Other	174,758	-	174,758	0.0%	99.9%
Business	Waste Water Treatment	Other	165,168	-	165,168	0.0%	99.9%
Business	Freezer & Refrigerator	Food Service Equipment	137,733	-	137,733	0.0%	99.9%
Business	Non-Electrification Fork Trucks	Other	115,521	-	115,521	0.0%	99.9%
Business	Process Cooling & Heating	Other	82,234	-	82,234	0.0%	100.0%
Business	Griddle	Food Service Equipment	60,547	-	60,547	0.0%	100.0%
Business	Dishwasher	Food Service Equipment	48,421	-	48,421	0.0%	100.0%
Business	Other Non-lighting	Hot Water	46,529	-	46,529	0.0%	100.0%
Business	Low Flow Showerhead	Hot Water	45,292	-	45,292	0.0%	100.0%
Business	Kitchen & Bathroom Faucet Aerator	Hot Water	26,896	-	26,896	0.0%	100.0%
Business	Process Cooling & Heating	HVAC	24,164	-	24,164	0.0%	100.0%
Business	Demand Controlled Ventilation	Food Service Equipment	23,588	-	23,588	0.0%	100.0%
Business	Energy Efficient Hand Dryer	Other	22,373	-	22,373	0.0%	100.0%
Business	Other Non-lighting	Consumer Electronics	7,155	-	7,155	0.0%	100.0%
Business	Hot Food Holding Cabinets	Food Service Equipment	6,095	-	6,095	0.0%	100.0%

Sector	High Impact Measure	End Use Type	First year kWh Savings (Verified Net)	Verified Net Savings (kWh from Therms)	Verified Net Savings (kWh Total)	Percent 1st Year kWh	Cumulative Percent
Business	Notched V Belts for HVAC Systems	HVAC	3,759	-	3,759	0.0%	100.0%
Business	High-Performance Windows	Other	873	-	873	0.0%	100.0%

Note: Cumulative percent is the cumulative sum of percent 1st year kWh achieved by the high impact measure. Percent 1st year kWh is the kWh total for the measure over the sum of kWh total for all measures (electric kWh, including electrification savings plus counted kWh converted, where applicable). Business & Public Sector measure list include the Voltage Optimization and the pilot Upstream Commercial Food Service Equipment programs.

Source: Evaluation team analysis

**Table 6-3: Summary Table of CY2023 High Impact Measures – Residential Gross Impact**

Sector	High Impact Measure	End Use Type	First year kWh Savings (Verified Gross)	Weighted Average Measure Life*	Verified Gross Savings (kWh from Therms)	Lifetime Gross kWh (Verified)	Verified Gross Savings (kWh Total)	Percent 1st Year kWh	Cumulative Percent
Market Rate (Residential)	Carryover Lamps	Lighting	42,239,215	9.5	-	401,699,824	42,239,215	25.4%	25.4%
Market Rate (Residential)	Air Sealing	Shell	40,256,605	20.0	-	805,132,099	40,256,605	24.2%	49.6%
Market Rate (Residential)	Heat Pumps (ASHP, Ductless HP, GSHP, Others)	HVAC	36,228,626	15.9	-	574,815,222	36,228,626	21.8%	71.4%
Market Rate (Residential)	Advanced Thermostat	HVAC	10,001,215	11.0	-	110,344,151	10,001,215	6.0%	77.4%
Market Rate (Residential)	Clothes Washer	Appliances	8,476,310	14.0	-	118,668,339	8,476,310	5.1%	82.5%
Market Rate (Residential)	Interior & Exterior LED Fixtures	Lighting	4,409,880	6.4	-	28,345,919	4,409,880	2.7%	85.2%
Market Rate (Residential)	Air Purifier	Appliances	3,882,839	9.0	-	34,945,547	3,882,839	2.3%	87.5%
Market Rate (Residential)	Dehumidifier	Appliances	3,309,050	12.0	-	39,708,602	3,309,050	2.0%	89.5%
Market Rate (Residential)	Freezer & Refrigerator	Appliances	4,675,052	15.0	-	70,125,774	4,675,052	2.8%	92.3%
Market Rate (Residential)	Advanced Power Strips	Consumer Electronics	2,599,517	7.0	-	18,196,618	2,599,517	1.6%	93.9%
Market Rate (Residential)	Low Flow Showerhead	Hot Water	1,559,165	10.0	-	15,591,652	1,559,165	0.9%	94.8%
Market Rate (Residential)	Standard LED Lamps	Lighting	1,356,067	8.9	-	12,029,514	1,356,067	0.8%	95.7%
Market Rate (Residential)	High Performance HVAC Equipment	HVAC	1,042,370	15.8	-	16,513,332	1,042,370	0.6%	96.3%
Market Rate (Residential)	Room & Central Air Conditioner	HVAC	780,673	18.0	-	14,050,391	780,673	0.5%	96.8%
Market Rate (Residential)	Weather Stripping	Shell	660,632	20.0	-	13,212,638	660,632	0.4%	97.2%
Market Rate (Residential)	Door Sweep	Shell	641,503	20.0	-	12,830,058	641,503	0.4%	97.5%
Market Rate (Residential)	Ventilation Fan	Appliances	632,679	19.0	-	12,020,897	632,679	0.4%	97.9%
Market Rate (Residential)	Shower Timer	Hot Water	629,236	2.0	-	1,258,473	629,236	0.4%	98.3%
Market Rate (Residential)	LED Exit Signs, Channel Sign & Nightlight	Lighting	531,984	8.0	-	4,255,869	531,984	0.3%	98.6%
Market Rate (Residential)	Gas & HP Water Heater	Hot Water	488,548	15.0	-	7,328,222	488,548	0.3%	98.9%
Market Rate (Residential)	Attic/Wall/Basement /Floor/Foundation Insulation	Shell	349,105	20.0	-	6,982,097	349,105	0.2%	99.1%
Market Rate (Residential)	Clothes Dryer	Appliances	243,055	16.0	-	3,888,881	243,055	0.1%	99.3%
Market Rate (Residential)	Kitchen & Bathroom Faucet Aerator	Hot Water	211,104	10.0	-	2,111,037	211,104	0.1%	99.4%
Market Rate (Residential)	Duct Insulation and Sealing	Shell	209,580	20.0	-	4,191,597	209,580	0.1%	99.5%
Market Rate (Residential)	Hot Water Conservation	Hot Water	81,537	10.0	-	815,374	81,537	0.0%	99.6%
Market Rate (Residential)	Air Purifier	Consumer Electronics	76,413	9.0	-	687,721	76,413	0.0%	99.6%
Market Rate (Residential)	Energy Recovery Ventilation	HVAC	64,698	15.0	-	970,474	64,698	0.0%	99.7%
Market Rate (Residential)	Water Heater Temperature Setback	Hot Water	62,849	2.0	-	125,698	62,849	0.0%	99.7%
Market Rate (Residential)	Reduced Infiltration & Thermal Bridging	Shell	55,684	20.0	-	1,113,670	55,684	0.0%	99.7%
Market Rate (Residential)	Heat Pumps (ASHP, Ductless HP, GSHP, Others)	Appliances	51,204	16.0	-	819,261	51,204	0.0%	99.8%
Market Rate (Residential)	HVAC Control System & Maintenance	HVAC	50,310	11.0	-	553,406	50,310	0.0%	99.8%
Market Rate (Residential)	Air Handler Filter Replacement	HVAC	46,571	3.0	-	139,712	46,571	0.0%	99.8%
Market Rate (Residential)	Tune-Up	HVAC	39,154	3.0	-	117,461	39,154	0.0%	99.8%
Market Rate (Residential)	Efficient Appliances	Appliances	32,114	14.0	-	449,653	32,114	0.0%	99.9%
Market Rate (Residential)	Heat Pumps (ASHP, Ductless HP, GSHP, Others)	Hot Water	25,545	15.0	-	383,180	25,545	0.0%	99.9%
Market Rate (Residential)	Smart Socket	Other	25,466	7.0	-	178,265	25,466	0.0%	99.9%
Market Rate (Residential)	Induction Stove	Appliances	22,630	16.0	-	362,079	22,630	0.0%	99.9%
Market Rate (Residential)	Water Dispenser	Appliances	21,945	10.0	-	219,450	21,945	0.0%	99.9%
Market Rate (Residential)	Room & Central Air Conditioner	Appliances	19,982	12.0	-	239,785	19,982	0.0%	99.9%
Market Rate (Residential)	Duct Insulation and Sealing	HVAC	18,092	20.0	-	361,841	18,092	0.0%	99.9%
Market Rate (Residential)	Motors/Fans/Pumps	HVAC	17,298	19.0	-	328,653	17,298	0.0%	99.9%
Market Rate (Residential)	Other Non-lighting	Consumer Electronics	17,248	6.0	-	103,458	17,248	0.0%	100.0%
Market Rate (Residential)	Advanced Thermostat	Consumer Electronics	14,562	13.5	-	196,591	14,562	0.0%	100.0%
Market Rate (Residential)	Dehumidifier	Consumer Electronics	13,837	12.0	-	166,045	13,837	0.0%	100.0%
Market Rate (Residential)	Pipe Insulation	Hot Water	12,586	15.0	-	188,791	12,586	0.0%	100.0%
Market Rate (Residential)	Electric Dryer	Appliances	11,471	16.0	-	183,541	11,471	0.0%	100.0%
Market Rate (Residential)	Occupancy Sensor & Other Controls	Lighting	11,185	10.0	-	111,846	11,185	0.0%	100.0%
Market Rate (Residential)	Shower Flow Reducer	Hot Water	3,071	10.0	-	30,707	3,071	0.0%	100.0%
Market Rate (Residential)	EV Chargers	Consumer Electronics	989	10.0	-	9,890	989	0.0%	100.0%
Market Rate (Residential)	Bathroom & Kitchen Exhaust Fan	HVAC	806	19.0	-	15,318	806	0.0%	100.0%
Market Rate (Residential)	Dishwasher	Appliances	488	11.0	-	5,368	488	0.0%	100.0%
Market Rate (Residential)	Low Flow Showerhead	Consumer Electronics	179	10.0	-	1,790	179	0.0%	100.0%

Note: Cumulative percent is the cumulative sum of percent 1st year kWh achieved by the high impact measure. Percent 1st year kWh is the kWh total for the measure over the sum of kWh total for all measures (electric kWh, including electrification savings plus counted kWh converted, where applicable). Market Rate (Residential) measure list include the market transformation program and VSHP as Replacement and Heat Pump Pilot measures.

Source: Evaluation team analysis

**Table 6-4: Summary Table of CY2023 High Impact Measures – Residential Net Impact**

Sector	High Impact Measure	End Use Type	First year kWh Savings (Verified Net)	Verified Net Savings (kWh from Therms)	Verified Net Savings (kWh Total)	Percent 1st Year kWh	Cumulative Percent
Market Rate (Residential)	Behavioral Savings	Behavior	82,444,452	-	82,444,452	39.0%	39.0%
Market Rate (Residential)	Air Sealing	Shell	33,596,890	-	33,596,890	15.9%	55.0%
Market Rate (Residential)	Heat Pumps (ASHP, Ductless HP, GSHP, Others)	HVAC	29,459,017	-	29,459,017	14.0%	68.9%
Market Rate (Residential)	Carryover Lamps	Lighting	23,439,413	-	23,439,413	11.1%	80.0%
Market Rate (Residential)	Advanced Thermostat	HVAC	8,955,126	-	8,955,126	4.2%	84.3%
Market Rate (Residential)	Clothes Washer	Appliances	7,786,091	-	7,786,091	3.7%	87.9%
Market Rate (Residential)	Interior & Exterior LED Fixtures	Lighting	4,181,842	-	4,181,842	2.0%	89.9%
Market Rate (Residential)	Air Purifier	Appliances	3,250,983	-	3,250,983	1.5%	91.5%
Market Rate (Residential)	Freezer & Refrigerator	Appliances	4,232,610	-	4,232,610	2.0%	93.5%
Market Rate (Residential)	Advanced Power Strips	Consumer Electronics	2,455,326	-	2,455,326	1.2%	94.6%
Market Rate (Residential)	Dehumidifier	Appliances	2,376,248	-	2,376,248	1.1%	95.8%
Market Rate (Residential)	Low Flow Showerhead	Hot Water	1,381,793	-	1,381,793	0.7%	96.4%
Market Rate (Residential)	Standard LED Lamps	Lighting	1,208,404	-	1,208,404	0.6%	97.0%
Market Rate (Residential)	High Performance HVAC Equipment	HVAC	935,464	-	935,464	0.4%	97.4%
Market Rate (Residential)	Weather Stripping	Shell	660,632	-	660,632	0.3%	97.7%
Market Rate (Residential)	Door Sweep	Shell	641,503	-	641,503	0.3%	98.0%
Market Rate (Residential)	Room & Central Air Conditioner	HVAC	635,514	-	635,514	0.3%	98.3%
Market Rate (Residential)	Shower Timer	Hot Water	627,439	-	627,439	0.3%	98.6%
Market Rate (Residential)	Ventilation Fan	Appliances	449,564	-	449,564	0.2%	98.9%
Market Rate (Residential)	LED Exit Signs, Channel Sign & Nightlight	Lighting	445,117	-	445,117	0.2%	99.1%
Market Rate (Residential)	Gas & HP Water Heater	Hot Water	403,913	-	403,913	0.2%	99.3%
Market Rate (Residential)	Attic/Wall/Basement /Floor/Foundation Insulation	Shell	311,143	-	311,143	0.1%	99.4%
Market Rate (Residential)	Kitchen & Bathroom Faucet Aerator	Hot Water	212,006	-	212,006	0.1%	99.5%
Market Rate (Residential)	Duct Insulation and Sealing	Shell	198,340	-	198,340	0.1%	99.6%
Market Rate (Residential)	Clothes Dryer	Appliances	172,922	-	172,922	0.1%	99.7%
Market Rate (Residential)	Hot Water Conservation	Hot Water	73,175	-	73,175	0.0%	99.7%
Market Rate (Residential)	Water Heater Temperature Setback	Hot Water	62,849	-	62,849	0.0%	99.7%
Market Rate (Residential)	Energy Recovery Ventilation	HVAC	58,063	-	58,063	0.0%	99.8%
Market Rate (Residential)	Air Purifier	Consumer Electronics	51,655	-	51,655	0.0%	99.8%
Market Rate (Residential)	Reduced Infiltration & Thermal Bridging	Shell	49,973	-	49,973	0.0%	99.8%
Market Rate (Residential)	HVAC Control System & Maintenance	HVAC	45,150	-	45,150	0.0%	99.8%
Market Rate (Residential)	Heat Pumps (ASHP, Ductless HP, GSHP, Others)	Appliances	43,075	-	43,075	0.0%	99.9%
Market Rate (Residential)	Air Handler Filter Replacement	HVAC	40,459	-	40,459	0.0%	99.9%
Market Rate (Residential)	Tune-Up	HVAC	31,842	-	31,842	0.0%	99.9%
Market Rate (Residential)	Efficient Appliances	Appliances	28,821	-	28,821	0.0%	99.9%
Market Rate (Residential)	Smart Socket	Other	21,784	-	21,784	0.0%	99.9%
Market Rate (Residential)	Heat Pumps (ASHP, Ductless HP, GSHP, Others)	Hot Water	20,436	-	20,436	0.0%	99.9%
Market Rate (Residential)	Induction Stove	Appliances	19,052	-	19,052	0.0%	99.9%
Market Rate (Residential)	Duct Insulation and Sealing	HVAC	16,061	-	16,061	0.0%	99.9%
Market Rate (Residential)	Water Dispenser	Appliances	15,903	-	15,903	0.0%	100.0%
Market Rate (Residential)	Room & Central Air Conditioner	Appliances	15,525	-	15,525	0.0%	100.0%
Market Rate (Residential)	Motors/Fans/Pumps	HVAC	15,523	-	15,523	0.0%	100.0%
Market Rate (Residential)	Other Non-lighting	Consumer Electronics	11,659	-	11,659	0.0%	100.0%
Market Rate (Residential)	Pipe Insulation	Hot Water	11,036	-	11,036	0.0%	100.0%
Market Rate (Residential)	Occupancy Sensor & Other Controls	Lighting	10,579	-	10,579	0.0%	100.0%
Market Rate (Residential)	Advanced Thermostat	Consumer Electronics	9,844	-	9,844	0.0%	100.0%
Market Rate (Residential)	Dehumidifier	Consumer Electronics	9,354	-	9,354	0.0%	100.0%
Market Rate (Residential)	Electric Dryer	Appliances	6,998	-	6,998	0.0%	100.0%
Market Rate (Residential)	Shower Flow Reducer	Hot Water	2,582	-	2,582	0.0%	100.0%
Market Rate (Residential)	EV Chargers	Consumer Electronics	669	-	669	0.0%	100.0%
Market Rate (Residential)	Bathroom & Kitchen Exhaust Fan	HVAC	600	-	600	0.0%	100.0%
Market Rate (Residential)	Dishwasher	Appliances	303	-	303	0.0%	100.0%
Market Rate (Residential)	Low Flow Showerhead	Consumer Electronics	121	-	121	0.0%	100.0%

Note: Cumulative percent is the cumulative sum of percent 1st year kWh achieved by the high impact measure. Percent 1st year kWh is the kWh total for the measure over the sum of kWh total for all measures (electric kWh, including electrification savings plus counted kWh converted, where applicable). Market Rate (Residential) measure list include the market transformation program and VSHP as Replacement and Heat Pump Pilot measures.

Source: Evaluation team analysis

**Table 6-5: Summary Table of CY2023 High Impact Measures – Income Eligible Gross Impact**

Sector	High Impact Measure	End Use Type	First year kWh Savings (Verified Gross)	Weighted Average Measure Life*	Verified Gross Savings (kWh from Therms)	Lifetime Gross kWh (Verified)	Verified Gross Savings (kWh Total)	Percent 1st Year kWh	Cumulative Percent
Income Eligible	Standard LED Lamps	Lighting	240,957,262	8.0	-	1,929,148,291	240,957,262	37.8%	37.8%
Income Eligible	Air Sealing	Shell	15,047,302	20.0	97,389,697	2,248,739,994	112,437,000	17.7%	55.5%
Income Eligible	Omni-Directional LED Lamps	Lighting	48,375,537	7.3	-	354,674,132	48,375,537	7.6%	63.1%
Income Eligible	Carryover Lamps	Lighting	34,424,277	9.9	-	340,203,603	34,424,277	5.4%	68.5%
Income Eligible	Attic/Wall/Basement /Floor/Foundation Insulation	Shell	9,394,733	20.0	16,410,794	516,110,536	25,805,527	4.1%	72.5%
Income Eligible	Specialty LED Lamps	Lighting	24,208,119	7.4	-	179,129,926	24,208,119	3.8%	76.3%
Income Eligible	Heat Pumps (ASHP, Ductless HP, GSHP, Others)	HVAC	23,739,592	15.5	-	368,739,158	23,739,592	3.7%	80.1%
Income Eligible	Interior & Exterior LED Fixtures	Lighting	20,649,158	7.5	-	154,522,957	20,649,158	3.2%	83.3%
Income Eligible	Advanced Thermostat	HVAC	2,705,071	11.9	15,746,327	219,251,579	18,451,399	2.9%	86.2%
Income Eligible	Advanced Power Strips	Consumer Electronics	17,645,983	7.0	-	123,521,880	17,645,983	2.8%	89.0%
Income Eligible	Decorative & Directional LED Lamps	Lighting	13,165,355	7.1	-	93,971,644	13,165,355	2.1%	91.0%
Income Eligible	Weather Stripping	Shell	4,665,857	20.0	4,040,044	174,118,014	8,705,901	1.4%	92.4%
Income Eligible	LED Exit Signs, Channel Sign & Nightlight	Lighting	6,586,709	7.8	-	51,534,469	6,586,709	1.0%	93.4%
Income Eligible	Pipe Insulation	Hot Water	53,868	15.0	4,519,240	68,596,619	4,573,108	0.7%	94.2%
Income Eligible	Low Flow Showerhead	Hot Water	2,197,397	10.0	2,214,563	44,119,602	4,411,960	0.7%	94.9%
Income Eligible	Kits	Hot Water	374,763	10.0	3,446,284	38,210,475	3,821,047	0.6%	95.5%
Income Eligible	Air Purifier	Appliances	3,789,862	9.0	-	34,108,757	3,789,862	0.6%	96.0%
Income Eligible	Door Sweep	Shell	1,848,330	20.0	912,338	55,213,361	2,760,668	0.4%	96.5%
Income Eligible	High Performance HVAC Equipment	HVAC	2,200,582	13.7	439,903	36,240,971	2,640,485	0.4%	96.9%
Income Eligible	Kits	Shell	1,556,619	20.0	882,556	48,783,507	2,439,175	0.4%	97.3%
Income Eligible	Shower Timer	Hot Water	1,667,739	2.0	-	3,335,479	1,667,739	0.3%	97.5%
Income Eligible	Steam Trap	HVAC	-	6.0	1,545,260	9,271,560	1,545,260	0.2%	97.8%
Income Eligible	Caulk	Shell	1,433,685	20.0	-	28,673,690	1,433,685	0.2%	98.0%
Income Eligible	Duct Insulation and Sealing	HVAC	157,133	20.0	996,235	23,067,355	1,153,368	0.2%	98.2%
Income Eligible	High Efficiency Furnace	HVAC	129,155	20.0	1,017,021	22,923,521	1,146,176	0.2%	98.4%
Income Eligible	High Efficiency Boiler	HVAC	-	25.0	1,131,939	28,298,464	1,131,939	0.2%	98.5%
Income Eligible	HVAC Control System & Maintenance	HVAC	26,849	11.0	956,802	10,820,157	983,651	0.2%	98.7%
Income Eligible	Kitchen & Bathroom Faucet Aerator	Hot Water	733,951	10.0	212,234	9,461,854	946,185	0.1%	98.9%
Income Eligible	Other Non-lighting	Shell	448,882	20.0	317,604	15,329,731	766,487	0.1%	99.0%
Income Eligible	Switch and Outlet Gasket	Shell	448,882	20.0	317,604	15,329,731	766,487	0.1%	99.1%
Income Eligible	DHW Controls	Hot Water	-	15.0	707,239	10,608,589	707,239	0.1%	99.2%
Income Eligible	Gas & HP Water Heater	Hot Water	35,735	14.6	479,689	7,507,915	515,424	0.1%	99.3%
Income Eligible	Room & Central Air Conditioner	HVAC	504,320	15.5	-	7,816,758	504,320	0.1%	99.4%
Income Eligible	Dehumidifier	Appliances	460,663	12.0	-	5,527,959	460,663	0.1%	99.4%
Income Eligible	IU Ducted ASHP	HVAC	450,396	16.0	-	7,206,329	450,396	0.1%	99.5%
Income Eligible	Freezer & Refrigerator	Appliances	448,540	7.6	-	3,425,678	448,540	0.1%	99.6%
Income Eligible	Reduced Infiltration & Thermal Bridging	Shell	242,279	20.0	151,337	7,872,327	393,616	0.1%	99.6%
Income Eligible	Hot Water Plant	Hot Water	-	15.0	361,162	5,417,429	361,162	0.1%	99.7%
Income Eligible	Bathroom & Kitchen Exhaust Fan	HVAC	355,441	19.0	-	6,753,380	355,441	0.1%	99.8%
Income Eligible	Gas & HP Water Heater	HVAC	255,862	15.0	-	3,837,926	255,862	0.0%	99.8%
Income Eligible	Thermostatic Radiator Valve	Thermostatic Radiator Valve	-	15.0	221,345	3,320,180	221,345	0.0%	99.8%
Income Eligible	Freezer & Refrigerator	Refrigeration	179,353	15.0	-	2,690,295	179,353	0.0%	99.9%
Income Eligible	Hot Water Conservation	Hot Water	7,531	11.2	149,014	1,760,492	156,545	0.0%	99.9%
Income Eligible	Room & Central Air Conditioner	Appliances	103,093	12.0	-	1,237,115	103,093	0.0%	99.9%
Income Eligible	Ventilation Fan	Appliances	92,893	19.0	-	1,764,967	92,893	0.0%	99.9%
Income Eligible	Clothes Washer	Appliances	58,256	14.0	23,143	1,139,592	81,399	0.0%	99.9%
Income Eligible	Efficient Appliances	Appliances	49,709	15.3	25,652	1,153,675	75,361	0.0%	99.9%
Income Eligible	Air Handler Filter Replacement	HVAC	74,567	3.0	-	223,700	74,567	0.0%	99.9%
Income Eligible	High-Performance Windows	Shell	19,544	20.0	53,100	1,452,878	72,644	0.0%	100.0%
Income Eligible	Water Heater Temperature Setback	Hot Water	65,767	2.0	-	131,534	65,767	0.0%	100.0%
Income Eligible	Tune-Up	HVAC	36,573	3.0	-	109,719	36,573	0.0%	100.0%
Income Eligible	VFD	HVAC	29,603	15.0	-	444,046	29,603	0.0%	100.0%
Income Eligible	Clothes Dryer	Appliances	27,721	16.0	-	443,540	27,721	0.0%	100.0%
Income Eligible	Induction Stove	Appliances	27,324	16.0	-	437,183	27,324	0.0%	100.0%
Income Eligible	Motors/Fans/Pumps	HVAC	17,520	19.0	-	332,879	17,520	0.0%	100.0%
Income Eligible	Other Non-lighting	HVAC	6,663	17.5	9,219	278,233	15,882	0.0%	100.0%
Income Eligible	Occupancy Sensor & Other Controls	Lighting	13,700	9.7	-	132,493	13,700	0.0%	100.0%
Income Eligible	Variable Speed Drive	HVAC	11,477	15.0	-	172,161	11,477	0.0%	100.0%
Income Eligible	Smart Socket	Other	7,936	7.0	-	55,554	7,936	0.0%	100.0%
Income Eligible	Heat Pumps (ASHP, Ductless HP, GSHP, Others)	Appliances	5,750	16.0	-	91,998	5,750	0.0%	100.0%
Income Eligible	Crawl Space Ceiling Insulation	Shell	-	20.0	3,198	63,957	3,198	0.0%	100.0%
Income Eligible	Shower Flow Reducer	Hot Water	1,723	10.0	139	18,626	1,863	0.0%	100.0%



Sector	High Impact Measure	End Use Type	First year kWh Savings (Verified Gross)	Weighted Average Measure Life*	Verified Gross Savings (kWh from Therms)	Lifetime Gross kWh (Verified)	Verified Gross Savings (kWh Total)	Percent 1st Year kWh	Cumulative Percent
Income Eligible	ECM Furnace Blower & Motor	HVAC	1,610	6.0	-	9,660	1,610	0.0%	100.0%
Income Eligible	Other Non-lighting	Hot Water	-2,514	13.0	4,026	19,652	1,512	0.0%	100.0%
Income Eligible	Water Dispenser	Appliances	1,003	10.0	-	10,032	1,003	0.0%	100.0%
Income Eligible	Other Non-lighting	Refrigeration	874	5.0	-	4,369	874	0.0%	100.0%
Income Eligible	Weatherization	Shell	624	20.0	-	12,482	624	0.0%	100.0%
Income Eligible	Covers and Gap Sealers for Room AC	HVAC	386	5.0	-	1,928	386	0.0%	100.0%
Income Eligible	Pipe Insulation	HVAC	-	15.0	323	4,846	323	0.0%	100.0%
Income Eligible	Water Heater Wrap	Hot Water	123	5.0	-	616	123	0.0%	100.0%

Note: Cumulative percent is the cumulative sum of percent 1st year kWh achieved by the high impact measure. Percent 1st year kWh is the kWh total for the measure over the sum of kWh total for all measures (electric kWh plus counted kWh converted, where applicable)

Source: Evaluation team analysis

**Table 6-6: Summary Table of CY2023 High Impact Measures – Income Eligible Net Impact**

Sector	High Impact Measure	End Use Type	First year kWh Savings (Verified Net)	Verified Net Savings (kWh from Therms)	Verified Net Savings (kWh Total)	Percent 1st Year kWh	Cumulative Percent
Income Eligible	Standard LED Lamps	Lighting	240,957,262	-	240,957,262	38.1%	38.1%
Income Eligible	Air Sealing	Shell	15,047,302	97,389,697	112,437,000	17.8%	55.8%
Income Eligible	Omni-Directional LED Lamps	Lighting	48,044,866	-	48,044,866	7.6%	63.4%
Income Eligible	Carryover Lamps	Lighting	32,790,985	-	32,790,985	5.2%	68.6%
Income Eligible	Attic/Wall/Basement /Floor/Foundation Insulation	Shell	9,394,733	16,410,794	25,805,527	4.1%	72.7%
Income Eligible	Specialty LED Lamps	Lighting	24,111,993	-	24,111,993	3.8%	76.5%
Income Eligible	Heat Pumps (ASHP, Ductless HP, GSHP, Others)	HVAC	21,895,892	-	21,895,892	3.5%	80.0%
Income Eligible	Interior & Exterior LED Fixtures	Lighting	20,602,487	-	20,602,487	3.3%	83.2%
Income Eligible	Advanced Thermostat	HVAC	2,705,071	15,746,327	18,451,399	2.9%	86.1%
Income Eligible	Advanced Power Strips	Consumer Electronics	17,645,983	-	17,645,983	2.8%	88.9%
Income Eligible	Decorative & Directional LED Lamps	Lighting	13,074,388	-	13,074,388	2.1%	91.0%
Income Eligible	Weather Stripping	Shell	4,665,857	4,040,044	8,705,901	1.4%	92.4%
Income Eligible	LED Exit Signs, Channel Sign & Nightlight	Lighting	6,586,709	-	6,586,709	1.0%	93.4%
Income Eligible	Pipe Insulation	Hot Water	53,868	4,519,240	4,573,108	0.7%	94.1%
Income Eligible	Low Flow Showerhead	Hot Water	2,197,397	2,214,563	4,411,960	0.7%	94.8%
Income Eligible	Kits	Hot Water	374,763	3,446,284	3,821,047	0.6%	95.4%
Income Eligible	Air Purifier	Appliances	3,789,862	-	3,789,862	0.6%	96.0%
Income Eligible	Door Sweep	Shell	1,848,330	912,338	2,760,668	0.4%	96.5%
Income Eligible	High Performance HVAC Equipment	HVAC	2,200,582	439,903	2,640,485	0.4%	96.9%
Income Eligible	Kits	Shell	1,556,619	882,556	2,439,175	0.4%	97.3%
Income Eligible	Shower Timer	Hot Water	1,667,739	-	1,667,739	0.3%	97.5%
Income Eligible	Steam Trap	HVAC	-	1,545,260	1,545,260	0.2%	97.8%
Income Eligible	Caulk	Shell	1,433,685	-	1,433,685	0.2%	98.0%
Income Eligible	Duct Insulation and Sealing	HVAC	157,133	996,235	1,153,368	0.2%	98.2%
Income Eligible	High Efficiency Furnace	HVAC	129,155	1,017,021	1,146,176	0.2%	98.4%
Income Eligible	High Efficiency Boiler	HVAC	-	1,131,939	1,131,939	0.2%	98.5%
Income Eligible	HVAC Control System & Maintenance	HVAC	26,849	956,802	983,651	0.2%	98.7%
Income Eligible	Kitchen & Bathroom Faucet Aerator	Hot Water	733,951	212,234	946,185	0.1%	98.8%
Income Eligible	Other Non-lighting	Shell	448,882	317,604	766,487	0.1%	99.0%
Income Eligible	Switch and Outlet Gasket	Shell	448,882	317,604	766,487	0.1%	99.1%
Income Eligible	DHW Controls	Hot Water	-	707,239	707,239	0.1%	99.2%
Income Eligible	Gas & HP Water Heater	Hot Water	35,735	479,689	515,424	0.1%	99.3%
Income Eligible	Room & Central Air Conditioner	HVAC	504,320	-	504,320	0.1%	99.4%
Income Eligible	Dehumidifier	Appliances	460,663	-	460,663	0.1%	99.4%
Income Eligible	IU Ducted ASHP	HVAC	450,396	-	450,396	0.1%	99.5%
Income Eligible	Freezer & Refrigerator	Appliances	448,540	-	448,540	0.1%	99.6%
Income Eligible	Reduced Infiltration & Thermal Bridging	Shell	242,279	151,337	393,616	0.1%	99.6%
Income Eligible	Hot Water Plant	Hot Water	-	361,162	361,162	0.1%	99.7%
Income Eligible	Bathroom & Kitchen Exhaust Fan	HVAC	355,441	-	355,441	0.1%	99.7%
Income Eligible	Gas & HP Water Heater	HVAC	255,862	-	255,862	0.0%	99.8%
Income Eligible	Thermostatic Radiator Valve	Thermostatic Radiator Valve	-	221,345	221,345	0.0%	99.8%
Income Eligible	Freezer & Refrigerator	Refrigeration	179,353	-	179,353	0.0%	99.9%
Income Eligible	Hot Water Conservation	Hot Water	7,531	149,014	156,545	0.0%	99.9%
Income Eligible	Room & Central Air Conditioner	Appliances	103,093	-	103,093	0.0%	99.9%
Income Eligible	Ventilation Fan	Appliances	92,893	-	92,893	0.0%	99.9%
Income Eligible	Clothes Washer	Appliances	58,256	23,143	81,399	0.0%	99.9%
Income Eligible	Efficient Appliances	Appliances	49,709	25,652	75,361	0.0%	99.9%



Sector	High Impact Measure	End Use Type	First year kWh Savings (Verified Net)	Verified Net Savings (kWh from Therms)	Verified Net Savings (kWh Total)	Percent 1st Year kWh	Cumulative Percent
Income Eligible	Air Handler Filter Replacement	HVAC	74,567	-	74,567	0.0%	99.9%
Income Eligible	High-Performance Windows	Shell	19,544	53,100	72,644	0.0%	100.0%
Income Eligible	Water Heater Temperature Setback	Hot Water	65,767	-	65,767	0.0%	100.0%
Income Eligible	Tune-Up	HVAC	36,573	-	36,573	0.0%	100.0%
Income Eligible	VFD	HVAC	29,603	-	29,603	0.0%	100.0%
Income Eligible	Clothes Dryer	Appliances	27,721	-	27,721	0.0%	100.0%
Income Eligible	Induction Stove	Appliances	27,324	-	27,324	0.0%	100.0%
Income Eligible	Motors/Fans/Pumps	HVAC	17,520	-	17,520	0.0%	100.0%
Income Eligible	Other Non-lighting	HVAC	6,663	9,219	15,882	0.0%	100.0%
Income Eligible	Occupancy Sensor & Other Controls	Lighting	13,700	-	13,700	0.0%	100.0%
Income Eligible	Variable Speed Drive	HVAC	11,477	-	11,477	0.0%	100.0%
Income Eligible	Smart Socket	Other	7,936	-	7,936	0.0%	100.0%
Income Eligible	Heat Pumps (ASHP, Ductless HP, GSHP, Others)	Appliances	5,750	-	5,750	0.0%	100.0%
Income Eligible	Crawl Space Ceiling Insulation	Shell	-	3,198	3,198	0.0%	100.0%
Income Eligible	Shower Flow Reducer	Hot Water	1,723	139	1,863	0.0%	100.0%
Income Eligible	ECM Furnace Blower & Motor	HVAC	1,610	-	1,610	0.0%	100.0%
Income Eligible	Other Non-lighting	Hot Water	-2,514	4,026	1,512	0.0%	100.0%
Income Eligible	Water Dispenser	Appliances	1,003	-	1,003	0.0%	100.0%
Income Eligible	Other Non-lighting	Refrigeration	874	-	874	0.0%	100.0%
Income Eligible	Weatherization	Shell	624	-	624	0.0%	100.0%
Income Eligible	Covers and Gap Sealers for Room AC	HVAC	386	-	386	0.0%	100.0%
Income Eligible	Pipe Insulation	HVAC	-	323	323	0.0%	100.0%
Income Eligible	Water Heater Wrap	Hot Water	123	-	123	0.0%	100.0%

Note: Cumulative percent is the cumulative sum of percent 1st year kWh achieved by the high impact measure. Percent 1st year kWh is the kWh total for the measure over the sum of kWh total for all measures (electric kWh plus counted kWh converted, where applicable).

Source: Evaluation team analysis