

ComEd Product Distribution Program Impact Evaluation Report

Energy Efficiency/Demand Response Plan:
Program Year 2024 (CY2024)
(1/1/2024-12/31/2024)

Prepared for:

ComEd

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Introduction

This report presents the results of the impact evaluation of the Product Distribution program from the program year from January 1 to December 31, 2024 (CY2024). The Product Distribution Program has three components: Elementary Education Kits, Food Bank, and Income Eligible (IE) Kits. The program was designed to provide free energy-saving products for distribution within local communities. ComEd partnered with Community Action Agencies, Food Pantries, Elementary Schools, and gas utilities to supply eligible customers with free kits.

The program is offered jointly to customers served by ComEd, Nicor Gas, Peoples Gas, and North Shore Gas. The results for the gas utilities will be in a separate report.

Program Savings Detail

Table 1 summarizes the incremental energy and demand savings the Product Distribution Program achieved in CY2024. The gas or other fuel savings are only those that ComEd may be able to claim, which excludes savings the gas utilities claim, either via joint or non-joint programs.¹ The electrification savings are those resulting from electrification measures.² Table 2 summarizes the savings achieved from income eligible participants and Table 3 summarizes savings from non-income eligible participants. Together they make up the total shown in Table 1.

¹ The evaluation will determine which other fuel savings will be counted towards goal while producing the portfolio-wide Summary Report. 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 requirement as defined in paragraph (7.5) of subsection (g) of this Section be met through savings of fuels other than electricity."

² The electrification savings counted toward ComEd's electric savings goal were determined by the evaluation team's analysis of portfolio verified savings. 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 2022 through 2025."

Table 1. Total Annual Incremental Electric Savings - Total

Savings Category	Units	Ex Ante Gross Savings*	Program Gross Realization Rate	Verified Gross Savings*	Program Net-to-Gross Ratio (NTG)	CY2022 Net Carryover Savings	CY2023 Net Carryover Savings	Verified Net Savings†
Electric Energy Savings - Direct‡	kWh	263,596,745	0.99	261,886,697	1.00	12,450,430	730,331	275,011,940
Electric Energy Savings - Converted from Other Fuel§	kWh	7,549,420	1.00	7,551,089	1.00			7,551,089
Electric Energy Savings - Indirect from Electrification (electrification baseline)	kWh							
Electric Energy Savings - Indirect from Electrification (efficiency baseline)	kWh							
Total Electric Energy Savings#	kWh	271,146,165	0.99	269,437,786	1.00	12,450,430	730,331	282,563,029
Total Electric Energy Savings Including Carryover#	kWh	271,146,165	1.04	282,077,502	1.00	12,450,430	730,331	282,563,029
Summer Peak*† Demand Savings	kW	31,447	1.00	31,429	1.00	1,460	0	32,893
Summer Peak*† Demand Savings Including Carryover	kW	31,447	1.05	32,893	1.00	1,418	0	32,893

N/A = not applicable (refers to a piece of data that cannot be produced or does not apply).

* The "Ex Ante Gross Savings" and "Verified Gross Savings" in row one (Electric Energy Savings - Direct) and row seven (Summer Peak Demand Savings) exclude gross carryover savings from CY2022 and CY2023.

† The "Verified Net Savings" in row one (Electric Energy Savings - Direct) and row seven (Summer Peak Demand Savings) include net carryover savings from CY2022 and CY2023 for applicable programs.

‡ The Electric Energy Savings - Direct includes primary kWh savings from efficient measures (excluding electrification savings from both electrification and efficiency baseline), secondary kWh savings from wastewater treatment, and electric heating penalties.

§ Gas savings converted to kWh by multiplying Therms * 29.31 (which is based on 100,000 Btu/Therm and 3,412 Btu/kWh). The evaluation team will determine which gas savings will be converted to kWh and counted toward ComEd's electric savings goal while producing the portfolio-wide Summary Report.

|| Electrification savings excluding direct efficiency savings. Calculated from net electric savings from increase in kWh consumption and decrease in gas consumption from electrification (kWh equivalent). This row calculates savings using electrification baseline. The next row (Electric Energy Savings – Indirect from Electrification (efficiency baseline)) calculates the portion of converted electrification savings to traditional efficiency electric savings using an efficiency baseline, which can be claimable towards ComEd's electric savings goal (applied to only midstream programs).³ The evaluation team determined which electrification savings are allocated toward ComEd's electrification savings goal, and which portion of electrification are converted to traditional efficiency electric savings based on analysis of portfolio-wide verified savings.

Total Electric Energy Savings is the sum of the Electric Energy Savings - Direct, Electric Energy Savings Converted from Other Fuel, Electric Energy Savings - Indirect from Electrification (electrification baseline), and Electric Energy Savings - Indirect from Electrification (efficiency baseline). Note: This row does not include carryover gross savings, but the next row (Total Electric Savings Including Carryover) includes carryover in the gross savings, for the purpose of recalculating the gross realization rate, including carryover savings (same for the peak demand 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 PJM requirements.

Note: The program-level NTG values 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-2024>. The NTG ratio for eligible business customers in disadvantaged neighborhoods is set to 1.00 as per the "NTG Ratio for Disadvantaged Areas" policy.⁴

Source: Evaluation team analysis

³ ComEd Electrification Policy Resolutions for 2024 Final Draft. "...the ComEd Energy Efficiency portfolio will use the Electric Point of Sale baseline set by the TRM, without applying the additional electrification ratios, to claim Energy Efficiency savings from heat-pump projects through midstream programs once either of the electrification caps has been reached."

⁴ Illinois Energy Efficiency Policy Manual Version 3.0, Section 7.4, available at <https://www.ilsag.info/policy/>

Table 2. Incremental Electric Savings – Income Eligible

Savings Category	Units	Ex Ante Gross Savings*	Program Gross Realization Rate	Verified Gross Savings*	Program Net-to-Gross Ratio (NTG)	CY2022 Net Carryover Savings	CY2023 Net Carryover Savings	Verified Net Savings†
Electric Energy Savings - Direct‡	kWh	259,866,706	0.99	258,290,070	1.00	12,089,993	549,723	270,929,787
Electric Energy Savings - Converted from Other Fuel§	kWh	7,549,420	1.00	7,551,089	1.00			7,551,089
Electric Energy Savings - Indirect from Electrification (electrification baseline)	kWh							
Electric Energy Savings - Indirect from Electrification (efficiency baseline)								
Total Electric Energy Savings#	kWh	267,416,126	0.99	265,841,159	1.00	12,089,993	549,723	278,480,876
Total Electric Energy Savings Including Carryover#	kWh	267,416,126	1.04	278,480,876	1.00	12,089,993	549,723	278,480,876
Summer Peak** Demand Savings	kW	30,977	1.00	30,963	1.00	1,418	0	32,382
Summer Peak** Demand Savings Including Carryover	kW	30,977	1.05	32,382	1.00	1,418	0	32,382

Footnotes are defined similarly as found in Table 1.

Source: Evaluation team analysis

Table 3. Total Annual Incremental Electric Savings – Non-Income Eligible

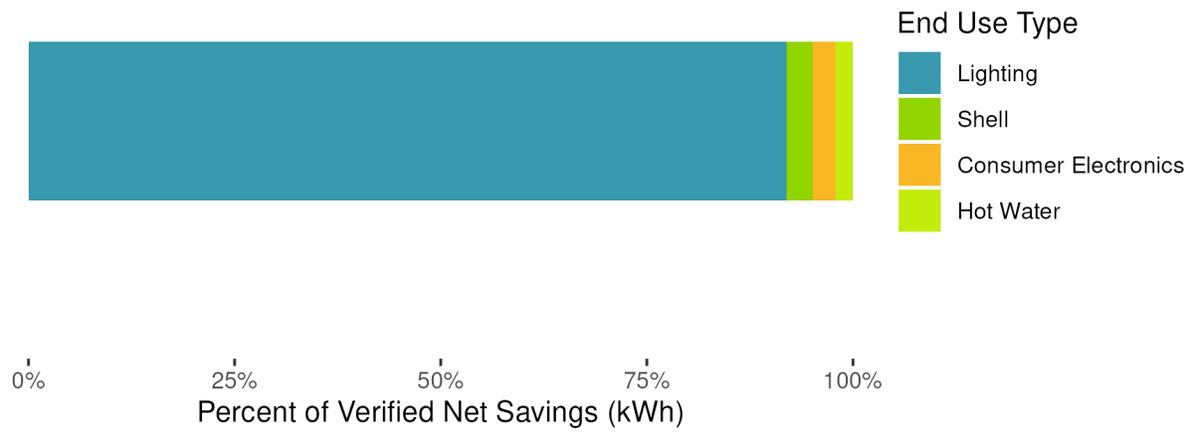
Savings Category	Units	Ex Ante Gross Savings*	Program Gross Realization Rate	Verified Gross Savings*	Program Net-to-Gross Ratio (NTG)	CY2022 Net Carryover Savings	CY2023 Net Carryover Savings	Verified Net Savings†
Electric Energy Savings - Direct‡	kWh	3,730,039	0.96	3,596,627	0.98	360,437	180,608	4,082,153
Electric Energy Savings - Converted from Other Fuel§	kWh	0		0				0
Electric Energy Savings - Indirect from Electrification (electrification kWh baseline)								
Electric Energy Savings - Indirect from Electrification (efficiency baseline)								
Total Electric Energy Savings#	kWh	3,730,039	0.96	3,596,627	0.98	360,437	180,608	4,082,153
Total Electric Energy Savings Including Carryover#	kWh	3,730,039	0.96	3,596,627	0.99	360,437	180,608	4,082,153
Summer Peak** Demand Savings	kW	470	0.99	466	1.00	42	0	512
Summer Peak** Demand Savings Including Carryover	kW	470	1.09	512	1.00	42	0	512

Footnotes are defined similarly as found in Table 1.

Source: Evaluation team analysis

Figure 1 shows the electric energy savings by measure end use. It includes measure efficiency savings, carryover kWh, secondary water kWh, and electrification savings. It does not include other fuel savings converted to kWh.

Figure 1. Verified Net Savings by Measure – Electric



Source: Evaluation team analysis

Cumulative Persisting Annual Savings

Table 4 to Table 6 show the cumulative persisting annual savings (CPAS) for the measures installed in CY2024. The electric CPAS across all measures installed in CY2024 is shown in Table 4. The gas and other fuel contribution to CPAS (converted to equivalent electricity) are shown in Table 5. The combined savings are shown in Table 6.

Table 4. CPAS – Electric

Savings Category	Verified Gross Savings (kWh)	Lifetime Net Savings (kWh)†	CPAS Verified Net kWh Savings											
			2018	2019	2020	2021	2022	2023	2024	2025	2026	2027		
CY2024 Program Total Contribution to CPAS	275,067,458	2,192,667,999									275,011,940	272,754,439	270,975,844	259,034,862
Historic Program Total Contribution to CPAS‡		5,149,903,535	56,396,205	161,973,998	309,944,405	329,174,113	508,079,481	806,354,671	799,230,095	792,319,456	788,024,060	693,369,982		
Program Total CPAS		7,342,571,534	56,396,205	161,973,998	309,944,405	329,174,113	508,079,481	806,354,671	1,074,242,035	1,065,073,895	1,058,999,904	952,404,844		
CY2024 Program Incremental Expiring Savings§		275,011,940								0	2,257,501	1,778,594	11,940,982	
Historic Program Incremental Expiring Savings		806,354,671								7,124,576	6,910,638	4,295,396	94,654,078	
Program Total Incremental Expiring Savings#		1,077,498,426								7,124,576	9,168,140	6,073,991	106,595,061	

Savings Category	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
CY2024 Program Total Contribution to CPAS	259,034,862	259,034,862	259,034,862	251,367,160	10,540,770	10,540,770	6,533,763	6,533,763	6,533,763	6,533,763	6,533,763	6,533,763	6,533,763	6,533,763
Historic Program Total Contribution to CPAS‡	648,405,079	578,992,146	482,608,788	154,444,124	24,020,252	20,152,067	20,152,067	20,152,067	20,137,996	19,558,497	19,558,497	19,558,497	19,538,403	17,977,071
Program Total CPAS	907,439,941	838,027,009	741,643,650	405,811,284	34,561,022	30,692,837	26,685,830	26,685,830	26,671,759	26,092,260	26,092,260	26,092,260	26,072,166	24,510,834
CY2024 Program Incremental Expiring Savings§	0	0	0	7,667,702	240,826,391	0	4,007,007	0	0	0	0	0	0	0
Historic Program Incremental Expiring Savings	44,964,902	69,412,933	96,383,358	328,164,665	130,423,871	3,868,185	0	0	14,071	579,499	0	0	20,094	1,561,332
Program Total Incremental Expiring Savings#	44,964,902	69,412,933	96,383,358	335,832,366	371,250,262	0	4,007,007	0	14,071	579,499	0	0	20,094	1,561,332

Savings Category	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055
CY2024 Program Total Contribution to CPAS	6,533,763	6,533,763	0	0	0	0	0	0	0	0	0	0	0	0
Historic Program Total Contribution to CPAS‡	11,704,390													
Program Total CPAS	18,238,153	6,533,763	0	0	0	0	0	0	0	0	0	0	0	0
CY2024 Program Incremental Expiring Savings§	0	0	6,533,763	0	0	0	0	0	0	0	0	0	0	0
Historic Program Incremental Expiring Savings	6,272,681	11,704,390	0	0	0	0	0	0	0	0	0	0	0	0
Program Total Incremental Expiring Savings#	6,272,681	11,704,390	6,533,763	0	0	0	0	0	0	0	0	0	0	0

† 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.

Program total incremental expiring savings are equal to current year total incremental expiring savings plus historic total incremental expiring savings.

Source: Evaluation team analysis

Table 5. CPAS – Other Fuel (Gas + Propane)

Savings Category	Verified Gross Savings (Therms)	Lifetime Net Savings†	CPAS Verified Net Therms Savings											
			2018	2019	2020	2021	2022	2023	2024	2025	2026	2027		
CY2024 Program Total Other Fuel Contribution to CPAS (Therms)	257,628	4,265,068									257,628	257,628	257,628	257,628
CY2024 Program Total Other Fuel Contribution to CPAS (kWh Equivalent)‡	7,551,089	125,009,151									7,551,089	7,551,089	7,551,089	7,551,089
Historic Program Total Other Fuel Contribution to CPAS (kWh Equivalent)§			5,157,303	26,567,068	47,425,490	66,987,986	97,941,746	108,237,428	105,764,104	105,224,661	105,224,661	103,723,634		
Program Total Other Fuel CPAS (kWh Equivalent)	7,551,089	125,009,151	5,157,303	26,567,068	47,425,490	66,987,986	97,941,746	108,237,428	113,315,193	112,775,749	112,775,749	111,274,723		
CY2024 Program Incremental Expiring Other Fuel Savings (Therms)											0	0	0	
CY2024 Program Incremental Expiring Other Fuel Savings (kWh Equivalent)		0	0								0	0	0	
Historic Program Incremental Expiring Other Fuel Savings (kWh Equivalent)#											2,473,323	539,444	0	1,501,027
Program Total Incremental Expiring Other Fuel Savings (kWh Equivalent)*†		0	0								2,473,323	539,444	0	1,501,027

Savings Category	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
CY2024 Program Total Other Fuel Contribution to CPAS (Therms)	257,628	257,628	257,628	257,628	257,628	257,628	168,878	168,878	168,878	168,878	168,878	168,878	168,878	168,878
CY2024 Program Total Other Fuel Contribution to CPAS (kWh Equivalent)‡	7,551,089	7,551,089	7,551,089	7,551,089	7,551,089	7,551,089	4,949,826	4,949,826	4,949,826	4,949,826	4,949,826	4,949,826	4,949,826	4,949,826
Historic Program Total Other Fuel Contribution to CPAS (kWh Equivalent)§	100,385,822	79,440,375	58,667,653	57,847,170	49,512,586	46,066,301	46,066,301	46,066,301	45,887,299	45,887,299	45,887,299	45,887,299	45,887,299	26,744,234
Program Total Other Fuel CPAS (kWh Equivalent)	107,936,910	86,991,464	66,218,742	65,398,259	57,063,674	53,617,390	51,016,127	51,016,127	50,837,125	50,837,125	50,837,125	50,837,125	50,837,125	31,694,060
CY2024 Program Incremental Expiring Other Fuel Savings (Therms)	0	0	0	0	0	0	88,750	0	0	0	0	0	0	0
CY2024 Program Incremental Expiring Other Fuel Savings (kWh Equivalent)	0	0	0	0	0	0	2,601,263	0	0	0	0	0	0	0
Historic Program Incremental Expiring Other Fuel Savings (kWh Equivalent)#	3,337,812	20,945,447	20,772,722	820,483	8,334,584	3,446,284	0	0	0	179,003	0	0	0	19,143,064
Program Total Incremental Expiring Other Fuel Savings (kWh Equivalent)*†	3,337,812	20,945,447	20,772,722	820,483	8,334,584	3,446,284	2,601,263	0	0	179,003	0	0	0	19,143,064

Savings Category	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055
CY2024 Program Total Other Fuel Contribution to CPAS (Therms)	168,878	168,878	0	0	0	0	0	0	0	0	0	0	0	0
CY2024 Program Total Other Fuel Contribution to CPAS (kWh Equivalent)‡	4,949,826	4,949,826	0	0	0	0	0	0	0	0	0	0	0	0
Historic Program Total Other Fuel Contribution to CPAS (kWh Equivalent)§	6,470,146													
Program Total Other Fuel CPAS (kWh Equivalent)	11,419,973	4,949,826	0	0	0	0	0	0	0	0	0	0	0	0
CY2024 Program Incremental Expiring Other Fuel Savings (Therms)	0	0	168,878	0	0	0	0	0	0	0	0	0	0	0
CY2024 Program Incremental Expiring Other Fuel Savings (kWh Equivalent)	0	0	4,949,826	0	0	0	0	0	0	0	0	0	0	0
Historic Program Incremental Expiring Other Fuel Savings (kWh Equivalent)#	20,274,088	6,470,146	0	0	0	0	0	0	0	0	0	0	0	0
Program Total Incremental Expiring Other Fuel Savings (kWh Equivalent)*†	20,274,088	6,470,146	4,949,826	0	0	0	0	0	0	0	0	0	0	0

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

‡ Fossil fuel savings (from natural gas, propane, etc.) are reported in therms. kWh equivalent savings are calculated by multiplying therms savings by 29.31.

§ 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.

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

Source: Evaluation team analysis

Table 6. CPAS – Total

Savings Category	Verified Gross Savings (kWh)	Lifetime Net Savings (kWh)†	CPAS Verified Net kWh Savings											
			2018	2019	2020	2021	2022	2023	2024	2025	2026	2027		
CY2024 Program Total Contribution to CPAS	282,618,547	2,317,677,150									282,563,029	280,305,528	278,526,933	266,585,951
Historic Program Total Contribution to CPAS‡			61,553,508	188,541,066	357,369,895	396,162,099	606,021,228	914,592,098	904,994,199	897,544,117	893,248,721	797,093,615		
Program Total CPAS	282,618,547	2,317,677,150	61,553,508	188,541,066	357,369,895	396,162,099	606,021,228	914,592,098	1,187,557,228	1,177,849,644	1,171,775,654	1,063,679,566		
CY2024 Program Incremental Expiring Savings§											2,257,501	1,778,594	11,940,982	
Historic Program Incremental Expiring Savings										9,597,899	7,450,082	4,295,396	96,155,105	
Program Total Incremental Expiring Savings#	0	0								9,597,899	9,707,584	6,073,991	108,096,087	

Savings Category	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
CY2024 Program Total Contribution to CPAS	266,585,951	266,585,951	266,585,951	258,918,249	18,091,859	18,091,859	11,483,589	11,483,589	11,483,589	11,483,589	11,483,589	11,483,589	11,483,589	11,483,589
Historic Program Total Contribution to CPAS‡	748,790,901	658,432,521	541,276,441	212,291,293	73,532,838	66,218,368	66,218,368	66,218,368	66,204,297	65,445,796	65,445,796	65,445,796	65,425,702	44,721,305
Program Total CPAS	1,015,376,852	925,018,472	807,862,392	471,209,543	91,624,697	84,310,227	77,701,957	77,701,957	77,687,887	76,929,385	76,929,385	76,929,385	76,909,291	56,204,894
CY2024 Program Incremental Expiring Savings§	0	0	0	7,667,702	240,826,391	0	6,608,269	0	0	0	0	0	0	0
Historic Program Incremental Expiring Savings	48,302,715	90,358,379	117,156,080	328,985,148	138,758,455	7,314,470	0	0	14,071	758,502	0	0	20,094	20,704,397
Program Total Incremental Expiring Savings#	48,302,715	90,358,379	117,156,080	336,652,849	379,584,846	7,314,470	6,608,269	0	14,071	758,502	0	0	20,094	20,704,397

Savings Category	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055
CY2024 Program Total Contribution to CPAS	11,483,589	11,483,589	0	0	0	0	0	0	0	0	0	0	0	0
Historic Program Total Contribution to CPAS‡	18,174,537													
Program Total CPAS	29,658,126	11,483,589	0	0	0	0	0	0	0	0	0	0	0	0
CY2024 Program Incremental Expiring Savings§	0	0	11,483,589	0	0	0	0	0	0	0	0	0	0	0
Historic Program Incremental Expiring Savings	26,546,768	18,174,537	0	0	0	0	0	0	0	0	0	0	0	0
Program Total Incremental Expiring Savings#	26,546,768	18,174,537	11,483,589	0	0	0	0	0	0	0	0	0	0	0

† 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.

Program total incremental expiring savings are equal to current year total incremental expiring savings plus historic total incremental expiring savings.

Source: Evaluation team analysis