

# ComEd New Construction - Bus/Pub Program Impact Evaluation Report

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

Prepared for:

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**FINAL**

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# Introduction

This report presents the results of the impact evaluation of the New Construction - Bus/Pub program from the program year from January 1 to December 31, 2024 (CY2024). The program was designed to capture immediate and long-term energy efficiency opportunities that are available during the design and construction of non-residential and multifamily buildings in ComEd’s service territory. The program covers new buildings, additions, and major renovations.

The program reaches out to design professionals, commercial real estate developers, and customers at the beginning of the design process. The implementation team provides technical assistance in building design to reduce energy use beyond what is required by existing building codes and standards.

The program is offered jointly to customers served by ComEd, Nicor Gas, Peoples Gas, and North Shore Gas. This report presents the results just for ComEd. 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 New Construction - Bus/Pub 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.<sup>1</sup> The electrification savings are those resulting from electrification measures.<sup>2</sup>

**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	10,711,188	0.99	10,636,432	0.54			5,729,355
Electric Energy Savings - Converted from Other Fuels§	kWh	2,204,728	1.01	2,220,600	0.46			1,014,240
Electric Energy Savings - Indirect from Electrification (electrification baseline)	kWh							
Electric Energy Savings - Indirect from Electrification (efficiency baseline)	kWh							
<b>Total Electric Energy Savings#</b>	<b>kWh</b>	<b>12,915,915</b>	<b>1.00</b>	<b>12,857,031</b>	<b>0.52</b>			<b>6,743,595</b>
<b>Total Electric Energy Savings Including Carryover#</b>	<b>kWh</b>							
Summer Peak*†† Demand Savings	kW	1,283	1.16	1,486	0.55			818
Summer Peak*†† Demand Savings Including Carryover	kW							

<sup>1</sup> 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.”

<sup>2</sup> 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.”

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).<sup>3</sup> 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.<sup>4</sup>

Source: *Evaluation team analysis*

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<sup>3</sup> 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.”

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

# 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 2. 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	10,636,432	99,690,777									5,729,355	5,729,355	5,729,355	5,729,355
Historic Program Total Contribution to CPAS‡			22,239,823	40,976,658	58,403,275	74,240,339	84,997,375	95,439,700	95,439,700	95,439,700	95,439,700	95,439,700	95,439,700	95,439,700
Program Total CPAS	10,636,432	99,690,777	22,239,823	40,976,658	58,403,275	74,240,339	84,997,375	95,439,700	101,169,055	101,169,055	101,169,055	101,169,055	101,169,055	
CY2024 Program Incremental Expiring Savings§											0	0	0	0
Historic Program Incremental Expiring Savings											0	0	0	0
Program Total Incremental Expiring Savings#											0	0	0	0

  

Savings Category	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
CY2024 Program Total Contribution to CPAS	5,729,355	5,729,355	5,729,355	5,729,355	5,729,355	5,729,355	5,729,355	5,729,355	5,729,355	5,729,355	5,729,355	5,729,355	5,729,355	2,291,742
Historic Program Total Contribution to CPAS‡	95,439,700	95,439,700	95,439,700	95,439,700	95,439,700	95,439,700	95,439,700	82,095,806	61,957,775	44,007,072	27,534,186	14,745,139	4,176,930	0
Program Total CPAS	101,169,055	101,169,055	101,169,055	101,169,055	101,169,055	101,169,055	101,169,055	87,825,161	67,687,130	49,736,427	33,263,541	20,474,494	9,906,285	2,291,742
CY2024 Program Incremental Expiring Savings§	0	0	0	0	0	0	0	0	0	0	0	0	0	3,437,613
Historic Program Incremental Expiring Savings	0	0	0	0	0	0	0	13,343,894	20,138,030	17,950,704	16,472,885	12,789,047	10,568,209	4,176,930
Program Total Incremental Expiring Savings#	0	0	0	0	0	0	0	13,343,894	20,138,030	17,950,704	16,472,885	12,789,047	10,568,209	7,614,543

  

Savings Category	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055
CY2024 Program Total Contribution to CPAS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Historic Program Total Contribution to CPAS‡	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Program Total CPAS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CY2024 Program Incremental Expiring Savings§	2,291,742	0	0	0	0	0	0	0	0	0	0	0	0	0
Historic Program Incremental Expiring Savings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Program Total Incremental Expiring Savings#	2,291,742	0	0	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 3. CPAS – Other Fuel (Gas)**

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)	75,763	602,108									34,604	34,604	34,604	34,604
CY2024 Program Total Other Fuel Contribution to CPAS (kWh Equivalent)‡	2,220,600	17,647,780									1,014,240	1,014,240	1,014,240	1,014,240
Historic Program Total Other Fuel Contribution to CPAS (kWh Equivalent)§			981,763	2,500,239	3,713,955	4,940,022	5,057,950	5,196,115	5,196,115	5,196,115	5,196,115	5,196,115	5,196,115	5,196,115
Program Total Other Fuel CPAS (kWh Equivalent)	2,220,600	17,647,780	981,763	2,500,239	3,713,955	4,940,022	5,057,950	5,196,115	6,210,356	6,210,356	6,210,356	6,210,356	6,210,356	
CY2024 Program Incremental Expiring Other Fuel Savings (Therms)											0	0	0	0
CY2024 Program Incremental Expiring Other Fuel Savings (kWh Equivalent)											0	0	0	0
Historic Program Incremental Expiring Other Fuel Savings (kWh Equivalent)#											0	0	0	0
Program Total Incremental Expiring Other Fuel Savings (kWh Equivalent)*†											0	0	0	0

  

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)	34,604	34,604	34,604	34,604	34,604	34,604	34,604	34,604	34,604	34,604	34,604	34,604	34,604	13,842
CY2024 Program Total Other Fuel Contribution to CPAS (kWh Equivalent)‡	1,014,240	1,014,240	1,014,240	1,014,240	1,014,240	1,014,240	1,014,240	1,014,240	1,014,240	1,014,240	1,014,240	1,014,240	1,014,240	405,696
Historic Program Total Other Fuel Contribution to CPAS (kWh Equivalent)§	5,196,115	5,196,115	5,196,115	5,196,115	5,196,115	5,196,115	5,196,115	4,607,058	3,303,267	1,967,647	746,520	185,336	55,266	0
Program Total Other Fuel CPAS (kWh Equivalent)	6,210,356	6,210,356	6,210,356	6,210,356	6,210,356	6,210,356	6,210,356	5,621,298	4,317,507	2,981,887	1,760,760	1,199,576	1,069,506	405,696
CY2024 Program Incremental Expiring Other Fuel Savings (Therms)	0	0	0	0	0	0	0	0	0	0	0	0	0	20,762
CY2024 Program Incremental Expiring Other Fuel Savings (kWh Equivalent)	0	0	0	0	0	0	0	0	0	0	0	0	0	608,544
Historic Program Incremental Expiring Other Fuel Savings (kWh Equivalent)#	0	0	0	0	0	0	0	589,058	1,303,791	1,335,620	1,221,127	561,184	130,070	55,266
Program Total Incremental Expiring Other Fuel Savings (kWh Equivalent)*†	0	0	0	0	0	0	0	589,058	1,303,791	1,335,620	1,221,127	561,184	130,070	663,810

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)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CY2024 Program Total Other Fuel Contribution to CPAS (kWh Equivalent)‡	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Historic Program Total Other Fuel Contribution to CPAS (kWh Equivalent)§	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Program Total Other Fuel CPAS (kWh Equivalent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CY2024 Program Incremental Expiring Other Fuel Savings (Therms)	13,842	0	0	0	0	0	0	0	0	0	0	0	0	0
CY2024 Program Incremental Expiring Other Fuel Savings (kWh Equivalent)	405,696	0	0	0	0	0	0	0	0	0	0	0	0	0
Historic Program Incremental Expiring Other Fuel Savings (kWh Equivalent)#	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Program Total Incremental Expiring Other Fuel Savings (kWh Equivalent)*†	405,696	0	0	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 4. 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	12,857,031	117,338,556									6,743,595	6,743,595	6,743,595	6,743,595
Historic Program Total Contribution to CPAS‡			23,221,586	43,476,897	62,117,229	79,180,362	90,055,326	100,635,815	100,635,815	100,635,815	100,635,815	100,635,815	100,635,815	100,635,815
Program Total CPAS	12,857,031	117,338,556	23,221,586	43,476,897	62,117,229	79,180,362	90,055,326	100,635,815	107,379,410	107,379,410	107,379,410	107,379,410	107,379,410	107,379,410
CY2024 Program Incremental Expiring Savings§											0	0	0	0
Historic Program Incremental Expiring Savings											0	0	0	0
Program Total Incremental Expiring Savings#											0	0	0	0

Savings Category	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
	CY2024 Program Total Contribution to CPAS	6,743,595	6,743,595	6,743,595	6,743,595	6,743,595	6,743,595	6,743,595	6,743,595	6,743,595	6,743,595	6,743,595	6,743,595	6,743,595
Historic Program Total Contribution to CPAS‡	100,635,815	100,635,815	100,635,815	100,635,815	100,635,815	100,635,815	100,635,815	86,702,863	65,261,042	45,974,719	28,280,706	14,930,475	4,232,196	0
Program Total CPAS	107,379,410	107,379,410	107,379,410	107,379,410	107,379,410	107,379,410	107,379,410	93,446,458	72,004,637	52,718,314	35,024,301	21,674,070	10,975,791	2,697,438
CY2024 Program Incremental Expiring Savings§	0	0	0	0	0	0	0	0	0	0	0	0	0	4,046,157
Historic Program Incremental Expiring Savings	0	0	0	0	0	0	0	13,932,952	21,441,821	19,286,324	17,694,012	13,350,231	10,698,279	4,232,196
Program Total Incremental Expiring Savings#	0	0	0	0	0	0	0	13,932,952	21,441,821	19,286,324	17,694,012	13,350,231	10,698,279	8,278,353

Savings Category	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055
CY2024 Program Total Contribution to CPAS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Historic Program Total Contribution to CPAS‡	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Program Total CPAS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CY2024 Program Incremental Expiring Savings§	2,697,438	0	0	0	0	0	0	0	0	0	0	0	0	0
Historic Program Incremental Expiring Savings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Program Total Incremental Expiring Savings#	2,697,438	0	0	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