



ComEd Automated System Optimization Pilot CY2025 Impact Evaluation Report

Energy Efficiency and Demand Response Plan

Program Year 2025 (CY2025)

(01/01/2025-12/31/2025)

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ComEd



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1 Introduction

This report presents the results of the impact evaluation of the Automated System Optimization (ASO) pilot from the program year from January 1 to December 31, 2025 (CY2025). The pilot was designed to test the capabilities of an ASO software based solution to manage building automate system controls and settings to optimize HVAC energy usage in near real time, while maintaining occupant comfort. This pilot served as a field test to understand the potential of ASO technologies and evaluate the feasibility of this technology for inclusion in ComEd’s commercial and public sector building optimization offerings.

2 Program Savings Detail

Table 1 summarizes the incremental energy and demand savings the ASO pilot achieved in CY2025.

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)	CY2023 Net Carryover Savings	CY2024 Net Carryover Savings	Verified Net Savings†
Electric Energy Savings - Direct‡	kWh	326,279	1.00	326,172	0.80	0	0	260,937
Electric Energy Savings - Converted from Other Fuels§	kWh	0		0				0
Electric Energy Savings - Indirect from Electrification (electrification kWh baseline)	kWh	0		0				0
Electric Energy Savings - Indirect from Electrification (efficiency kWh baseline)	kWh	0		0				0
Total Electric Energy Savings#	kWh	326,279	1.00	326,172	0.80	0	0	260,937
Total Electric Energy Savings Including Carryover#	kWh	326,279	1.00	326,172	0.80	0	0	260,937
Summer Peak*† Demand Savings	kW	0		0		0	0	0
Summer Peak*† Demand Savings Including Carryover	kW	0		0		0	0	0

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 CY2023 and CY2024.

† The “Verified Net Savings” in row one (Electric Energy Savings - Direct) and row seven (Summer Peak Demand Savings) include net carryover savings from CY2023 and CY2024 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.

§ Other fuel 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 other fuel 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).¹ The evaluation team determined which electrification savings

¹ ComEd IE EE Policy_2_17-25_Final Clean: Illinois Energy Efficiency Stakeholder Advisory Group Policy Resolution: Income Eligible Energy Efficient Electrification Attribution for Midstream Programs - Final (2/17/2025)

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. This pilot has energy savings, but no verifiable peak demand savings since the data is significant at the daily level only and not hourly levels required to verify peak demand savings with sufficient accuracy.

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-2025>. The NTG ratio for eligible business customers in disadvantaged neighborhoods is set to 1.00 as per the "NTG Ratio for Disadvantaged Areas" policy.²

Source: Evaluation team analysis

² Illinois Energy Efficiency Policy Manual Version 3.0, Section 7.4, available at <https://www.ilsag.info/policy/>

3 Cumulative Persisting Annual Savings

Table 2 shows the cumulative persisting annual savings (CPAS) for the measures installed in CY2025.

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		
CY2025 Program Total Contribution to CPAS	326,172	260,937										260,937	0	0
Historic Program Total Contribution to CPAS [‡]		0												
Program Total CPAS	326,172	260,937	0	0	0	0	0	0	0	0	0	260,937	0	0
CY2025 Program Incremental Expiring Savings [§]												0	260,937	0
Historic Program Incremental Expiring Savings												0	0	0
Program Total Incremental Expiring Savings [#]												0	260,937	0

Savings Category	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
CY2025 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 [‡]														
Program Total CPAS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CY2025 Program Incremental Expiring Savings [§]	0	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 [#]	0	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