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# ComEd Industrial Energy Management Information Systems Program Impact Evaluation Report

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

**Prepared for:**

**ComEd**

# FINAL

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# Introduction

This report presents the results of the impact evaluation of the Industrial Energy Management Information Systems (Industrial EMIS) program from the program year from January 1 to December 31, 2023 (CY2023). The program was designed to implement in-depth, data-driven energy management systems for large industrial customers to optimize their energy use. This pilot program focuses on high-volume, low cost savings opportunities beyond the typical industrial measures incentive by utility energy efficient programs.

# Program Savings Detail

Table 1 summarizes the incremental energy and demand savings the Industrial EMIS Program achieved in CY2023. The program ex ante and ex post savings did not include peak demand, gas or electrification savings.

### 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) | CY2021 Net Carryover Savings | CY2022 Net Carryover Savings | Verified Net Savings† |
|---|---|---|---|---|---|---|---|---|
| Electric Energy Savings - Direct‡ | kWh | 1,734,366 | 0.97 | 1,686,744 | 0.80 | | | 1,349,395 |
| Electric Energy Savings - Converted from Other Fuel§ | kWh | 0 | | 0 | 0.80 | | | 0 |
| Electric Energy Savings - Electrification‖ | kWh | 0 | | 0 | | | | 0 |
| Total Electric Energy Savings# | kWh | 1,734,366 | 0.97 | 1,686,744 | 0.80 | | | 1,349,395 |
| Total Electric Energy Savings Including Carryover# | kWh | 1,734,366 | 0.97 | 1,686,744 | 0.80 | | | 1,349,395 |
| Summer Peak*† Demand Savings | kW | 0 | | 0 | | | | 0 |
| Summer Peak*† Demand Savings Including Carryover | kW | 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 six (Summer Peak Demand Savings) exclude gross carryover savings from CY2021 and CY2022.
† The "Verified Net Savings" in row one and row six include net carryover savings from CY2021 and CY2022 (excludes carryover savings as they don't apply to this program).
‡ The 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.
§ Gas savings converted to kWh by multiplying Therms * 29.31 (which is based on 100,000 Btu/Therm and 3,412 Btu/kWh) and/or propane savings converted to kWh by multiplying Gallons * 26.77 (which is based on 91,333 Btu/Gallon 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).
# Total Electric Energy Savings is the sum of the Electric Energy Savings - Direct, the Electric Energy Savings Converted from Other Fuel, and the Electrification Savings. Note: This row does not include carryover gross savings, but the next one includes carryover verified gross savings, for the purpose of recalculating the gross realization rate resulting from including carryover savings (same for the peak demand savings).
Note: Given the timing and small number of participants, it was not reasonable to complete independent primary research with pilot participants. By policy, programs without researched NTG values are assigned a NTG of 0.80. Therefore, the evaluation team assigned an NTG value of 0.80 for the pilot program in CY2023.
*Source: Evaluation team analysis*

# Cumulative Persisting Annual Savings

Table 2 shows the cumulative persisting annual savings (CPAS) for the measures installed in CY2023. The electric CPAS across all measures installed in 2023 is shown in Table 2.

### Table 2. CPAS – Electric

| | Verified Gross Savings (kWh) | Lifetime Net Savings (kWh)† | CPAS Verified Net kWh Savings | | | | | | | | | | |
| Savings Category | | | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CY2023 Program Total Contribution to CPAS | 1,686,744 | 6,746,976 | | | | | | 1,349,395 | 1,349,395 | 1,349,395 | 1,349,395 | 1,349,395 | 0 |
| Historic Program Total Contribution to CPAS‡ | | | | | | | | | | | | | |
| Program Total CPAS | | | 0 | 0 | 0 | 0 | 0 | 1,349,395 | 1,349,395 | 1,349,395 | 1,349,395 | 1,349,395 | 0 |
| CY2023 Program Incremental Expiring Savings§ | | | | | | | | | 0 | 0 | 0 | 0 | 1,349,395 |
| Historic Program Incremental Expiring Savings‖ | | | | | | | | | 0 | 0 | 0 | 0 | 0 |
| Program Total Incremental Expiring Savings# | | | | | | | | | 0 | 0 | 0 | 0 | 1,349,395 |

† 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*