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| **ComEd** **Behavior Bus/Pub Program Impact Evaluation Report**  Energy Efficiency/Demand Response Plan:  Program Year 2023 (CY2023)  (1/1/2023-12/31/2023) | | | | | | | |
| Prepared for:  ComEd  DRAFT  March 7, 2024 | | | | | | | |
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# Introduction

This report presents the results of the impact evaluation of the Behavior Bus/Pub program from the program year from January 1 to December 31, 2023 (CY2023). The goal of the Behavior Bus/Pub Program is to train participating sites in how to apply a process of continuous energy management improvements that result in energy savings and demand reduction. The program trains participants to identify low-cost and no-cost measures, improve process efficiency, and reduce energy usage and demand through behavioral changes.

The program achieves energy savings through operational and maintenance (O&M) improvements, incremental increases in capital energy efficiency projects, and the identification of additional capital projects that would not otherwise have been considered (e.g., process changes, consideration of energy efficiency in all capital efforts). The program provides training and implementer support to identify O&M improvements. This training usually lasts for 1 year and occurs monthly or bimonthly.

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 separate reports.

# Program Savings Detail

Table 1 summarizes the incremental energy and demand savings the Behavior Bus/Pub Program achieved in CY2023.

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 | 42,544,332 | 1.00 | 42,520,929 | 1.00 | N/A | N/A | 42,520,929 |
| Electric Energy Savings -  Converted from Other Fuel§ | kWh | 0 | N/A | 0 | 1.00 | N/A | N/A | 0 |
| Electric Energy Savings – Indirect from Fuel Switching (through Electrification)|| | kWh | 0 | N/A | 0 | 1.00 | N/A | N/A | 0 |
| Total Electric Energy Savings# | kWh | 42,544,332 | 1.00 | 42,520,929 | 1.00 | N/A | N/A | 42,520,929 |
| Total Electric Energy Savings  Including Carryover# | kWh |  |  |  |  |  |  |  |
| Summer Peak\*† Demand Savings | kW | 0 | N/A | 0 | 1.00 | N/A | N/A | 0 |
| Summer Peak\*† Demand Savings Including Carryover | kW |  |  |  |  |  |  |  |

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 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 fuel switching measures but excludes the fuel switching 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 from fuel switching measures excluding direct efficiency savings. Calculated from net electric savings from increase in kWh consumption and decrease in gas consumption from fuel switching (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 from fuel switching. 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).

\*† 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 requirement.

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-2023. The group reached consensus to change the NTG ratio for this program to 1.00 for all the utilities during the SAG NTG Meeting #2, September 13, 2023, and apply it retroactively for CY2023.

Source: Evaluation team analysis

# Cumulative Persisting Annual Savings

Table 4 shows the cumulative persisting annual savings (CPAS) for the measures installed in CY2023.

Table 4. CPAS – Electric

|  | | | CPAS Verified Net kWh Savings | | | |  | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Savings Category | Verified Gross Savings (kWh) | Lifetime Net Savings (kWh)† | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
| CY2023 Program Total Contribution to CPAS | 42,520,929 | 297,646,503 |  |  |  |  |  | 42,520,929 | 42,520,929 | 42,520,929 | 42,520,929 | 42,520,929 | 42,520,929 |
| Historic Program Total Contribution to CPAS‡ |  |  | 14,039,833 | 37,336,439 | 70,918,544 | 105,064,112 | 151,108,242 | 137,068,409 | 113,771,803 | 80,189,698 | 80,189,698 | 80,189,698 | 46,044,131 |
| Program Total CPAS | 42,520,929 | 297,646,503 | 14,039,833 | 37,336,439 | 70,918,544 | 105,064,112 | 151,108,242 | 179,589,338 | 156,292,732 | 122,710,627 | 122,710,627 | 122,710,627 | 88,565,060 |
| CY2023 Program Incremental Expiring Savings§ |  |  |  |  |  |  |  |  | 0 | 0 | 0 | 0 | 0 |
| Historic Program Incremental Expiring Savings|| |  |  |  |  |  |  |  | 14,039,833 | 23,296,606 | 33,582,105 | 0 | 0 | 34,145,568 |
| Program Total Incremental Expiring Savings# |  |  |  |  |  |  |  | 14,039,833 | 23,296,606 | 33,582,105 | 0 | 0 | 34,145,568 |

| Savings Category | Verified Gross Savings (kWh) | Lifetime Net Savings (kWh)† | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CY2023 Program Total Contribution to CPAS | 42,520,929 | 297,646,503 | 42,520,929 | 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 |
| Program Total CPAS | 42,520,929 | 297,646,503 | 42,520,929 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CY2023 Program Incremental Expiring Savings§ |  |  | 0 | 42,520,929 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Historic Program Incremental Expiring Savings|| |  |  | 46,044,131 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Program Total Incremental Expiring Savings# |  |  | 46,044,131 | 42,520,929 | 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