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| Business Energy Efficiency Rebates Program Impact Evaluation Report  Energy Efficiency Plan: Program Year 2023  (1/1/2023-12/31/2023) | | | | | | | |
| Prepared for:  Nicor Gas Company  DRAFT  April 23, 2024 | | | | | | | |
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# Introduction

This report presents the results of the Nicor Gas 2023 Business Energy Efficiency Rebates (BEER) program impact evaluation and a summary of the total program’s energy impacts, broken out by program path and relevant measures. The appendices present the impact analysis methodology and Illinois total resource cost (TRC) inputs. Program year 2023 covers January 1, 2023 through December 31, 2023.

# Program Description

The BEER program provides incentives to business (private) and public sector customers that install new, high efficiency space heating, water heating, pipe insulation, commercial kitchen, and weatherstripping equipment covered by the program. The program consists of four delivery paths:

* Rebates for prescriptive cost-effective equipment as well as services (such as boiler tune-ups) to improve the energy efficiency of existing equipment.
* Free assessments and direct install measures, such as efficient faucet aerators, low-flow showerheads, and pre-rinse sprayers.
* Business optimization measures including steam traps and tune-ups.
* Midstream commercial food service (CFS) equipment incentives offering using midstream delivery channels. This path’s goals are to reduce barriers for food service operators to purchasing energy efficient equipment, and to reduce energy usage in the commercial food service sector.

The program had 453 participants in 2023 and completed 491 projects as shown in Table 2‑1. The program served customers in both the private and public sectors.

Table 2‑1. 2023 Volumetric Findings Detail

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Participation** | **Assessment Direct Install** | **Business Optimization Program** | **Midstream CFS** | **Prescriptive** | **Total** |
| **Private Sector** |  |  |  |  |  |
| Participants \* | 111 | 88 | 77 | 102 | **377** |
| Installed Projects † | 111 | 92 | 86 | 118 | **407** |
| Measure Types Installed ‡ | 5 | 12 | 8 | 22 | **40** |
| **Public Sector** |  |  |  |  |  |
| Participants \* | 9 | 5 | 5 | 58 | **77** |
| Installed Projects † | 9 | 5 | 5 | 65 | **84** |
| Measure Types Installed ‡ | 4 | 3 | 2 | 12 | **18** |
| **Program 2023 Total** |  |  |  |  |  |
| Participants \* | 120 | 93 | 82 | 159 | **453** |
| Installed Projects † | 120 | 97 | 91 | 183 | **491** |
| Measure Types Installed ‡ | 5 | 14 | 8 | 24 | **41** |

Note: Values is in this table represent distinct counts, so totals may not represent a sum of the respective column or row.

\* Participants are defined as the distinct count of project site addresses

† Installed Projects are defined as the distinct count of project IDs

‡ Measure Types Installed are defined as the distinct count of tracking data measure name

Source: Nicor Gas tracking data and Guidehouse evaluation team analysis.

Table 2‑2 summarizes the installed measure quantities that are the basis for verified energy savings.

Table 2‑2. 2023 Installed Measure Quantities

| **Program Category** | **Program Path** | **Measure** | **Quantity Unit** | **Installed Quantity** |
| --- | --- | --- | --- | --- |
| Private | Assessment Direct Install | Faucet Aerator - Bath | Each | 475 |
| Faucet Aerator - Kitchen | Each | 7 |
| Pre-Rinse Spray Valves | Each | 29 |
| Showerheads | Each | 89 |
| Business Optimization Program | Boiler Tune Up, Process | Each | 28 |
| Pipe Insulation | Ln Ft | 1,926 |
| Steam Trap, Dry Cleaner | Each | 524 |
| Steam Trap, Industrial High Pressure | Each | 175 |
| Steam Trap, Industrial Medium Pressure | Each | 217 |
| Midstream CFS | Automatic Conveyor Broiler | Each | 21 |
| Combination Oven | Each | 1 |
| Convection Oven | Each | 16 |
| Dishwasher | Each | 2 |
| Fryer | Each | 56 |
| Griddle | Each | 7 |
| Infrared Salamander Broiler | Each | 1 |
| Kitchen Demand Ventilation Controls | Each | 3 |
| Prescriptive | Boiler Chemical Descaling | Each | 3 |
| Boiler Tune Up, Process | Each | 5 |
| Boiler Tune Up, Space Heating | Each | 25 |
| Combination Oven | Each | 3 |
| Compressed Air Heat Recovery | Each | 1 |
| Fryer | Each | 24 |
| High Efficiency Boiler | Each | 15 |
| High Efficiency Furnace | Each | 67 |
| Infrared Charbroiler | Each | 3 |
| Infrared Heaters | Each | 3 |
| Pasta Cooker | Each | 1 |
| Pipe Insulation | Ln Ft | 1,307 |
| Small Commercial Thermostat | Each | 6 |
| Steam Trap, Commercial | Each | 115 |
| Steam Trap, Dry Cleaner | Each | 98 |
| Steam Trap, Industrial High Pressure | Each | 14 |
| Steam Trap, Industrial Medium Pressure | Each | 83 |
| Water Heater | Each | 3 |
| Public | Assessment Direct Install | Faucet Aerator - Bath | Each | 40 |
| Faucet Aerator - Kitchen | Each | 1 |
| Pre-Rinse Spray Valves | Each | 1 |
| Showerheads | Each | 2 |
| Business Optimization Program | Boiler Tune Up, Process | Each | 1 |
| Boiler Tune Up, Space Heating | Each | 5 |
| Steam Trap, Commercial | Each | 12 |
| Midstream CFS | Convection Oven | Each | 3 |
| Fryer | Each | 3 |
| Prescriptive | Boiler Tune Up, Process | Each | 1 |
| Boiler Tune Up, Space Heating | Each | 87 |
| High Efficiency Boiler | Each | 21 |
| High Efficiency Furnace | Each | 7 |
| Small Commercial Thermostat | Each | 1 |
| Steam Trap, Commercial | Each | 130 |
| Steam Trap, Industrial High Pressure | Each | 8 |
| Steam Trap, Industrial Medium Pressure | Each | 10 |
| Water Heater | Each | 1 |

Source: Nicor Gas tracking data and Guidehouse evaluation team analysis.

# Program Savings Detail

Table 3‑1 summarizes the energy savings the BEER Program achieved by path in 2023.

Table 3‑1. 2023 Annual Energy Savings Summary

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Program Category** | **Program Path** | **Ex Ante Gross Savings (Therms)** | **Verified Gross RR\*** | **Verified Gross Savings (Therms** | **NTG†** | **Verified Net Savings (Therms)** |
| Private, Non-Disadvantaged Communities | Assessment Direct Install | 13,196 | 100% | 13,199 | 0.86 | 11,351 |
| Business Optimization Program | 1,287,471 | 101% | 1,298,035 | 0.92 | 1,194,192 |
| Midstream CFS | 110,909 | 88% | 98,000 | 0.80 | 78,400 |
| Prescriptive | 592,695 | 100% | 590,461 | Thermostat = 0.92 All Other = 0.86 | 507,835 |
| ***Private, Non-DAC Subtotal*** |  | ***2,004,271*** | ***100%*** | ***1,999,695*** |  | ***1,791,779*** |
| Private, Disadvantaged Communities | Assessment Direct Install | 1,628 | 100% | 1,628 | 1.00 | 1,628 |
| Business Optimization Program | 576,815 | 101% | 583,311 | 1.00 | 583,311 |
| Midstream CFS | 14,043 | 88% | 12,393 | 1.00 | 12,393 |
| Prescriptive | 25,767 | 102% | 26,172 | 1.00 | 26,172 |
| ***Private, DAC Subtotal*** |  | ***618,253*** | ***101%*** | ***623,504*** |  | ***623,504*** |
| Public, Non-Disadvantaged Communities | Assessment Direct Install | 626 | 100% | 626 | 0.86 | 538 |
| Business Optimization Program | 2,407 | 106% | 2,548 | 0.92 | 2,344 |
| Midstream CFS | 3,607 | 66% | 2,377 | 0.80 | 1,902 |
| Prescriptive | 298,566 | 101% | 301,661 | Thermostat = 0.92 All Other = 0.86 | 12,419 |
| ***Public, Non-DAC Subtotal*** |  | ***305,206*** | ***101%*** | ***307,212*** |  | ***264,226*** |
| Public, Disadvantaged Communities | Assessment Direct Install | 20 | 100% | 20 | 1.00 | 20 |
| Business Optimization Program | 2,781 | 100% | 2,781 | 1.00 | 2,781 |
| Prescriptive | 67,202 | 103% | 68,968 | 1.00 | 68,968 |
| ***Public, DAC Subtotal*** |  | ***70,003*** | ***103%*** | ***71,769*** |  | ***71,769*** |
| **Total** | | **2,997,733** | **100%** | **3,002,180** |  | **2,751,278** |

Note Totals may not sum due to rounding.

\* Realization Rate (RR) is the ratio of verified gross savings to ex ante gross savings, based on evaluation research findings.

† A deemed value. Available on the SAG web site: https://www.ilsag.info/evaluator-ntg-recommendations-for-2023/. Projects in disadvantaged communities designated sites (DAC) have a NTG of 1.0.

Source: Guidehouse evaluation team analysis.

# Program Savings by Measure

The BEER program includes 28 reporting measures as shown in Table 4‑1; Table 4‑2 and Table 4‑3 present the results by program sector type. The Steam Trap – Industrial High Pressure, Steam Trap – Dry Cleaner, and Boiler Tune Up – Space Heating measures contributed the most savings.

Table 4‑1. 2023 Annual Energy Savings by Measure – Program Total

| **Program Category** | **Program Path** | **Savings Category** | **Ex Ante Gross Savings (Therms)** | **Verified Gross RR\*** | **Verified Gross Savings (Therms)** | **NTG†** | **Verified Net Savings (Therms)** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Program Total, Non-Disadvantaged Communities | Assessment Direct Install | Faucet Aerator - Bath | 5,809 | 100% | 5,809 | 0.86 | 4,996 |
| Faucet Aerator - Kitchen | 112 | 100% | 112 | 0.86 | 96 |
| Pre-Rinse Spray Valves | 5,935 | 100% | 5,935 | 0.86 | 5,104 |
| Showerheads | 1,966 | 100% | 1,969 | 0.86 | 1,693 |
| Business Optimization Program | Boiler Tune Up, Process | 52,557 | 100% | 52,557 | 0.92 | 48,353 |
| Pipe Insulation | 4,101 | 12% | 499 | 0.92 | 459 |
| Steam Trap, Commercial | 2,407 | 106% | 2,548 | 0.92 | 2,344 |
| Steam Trap, Dry Cleaner | 294,376 | 101% | 297,518 | 0.92 | 273,717 |
| Steam Trap, Industrial High Pressure | 686,063 | 101% | 691,805 | 0.92 | 636,460 |
| Steam Trap, Industrial Medium Pressure | 250,374 | 102% | 255,655 | 0.92 | 235,203 |
| Midstream CFS | Automatic Conveyor Broiler | 61,526 | 100% | 61,526 | 0.80 | 49,221 |
| Convection Oven | 4,374 | 80% | 3,517 | 0.80 | 2,813 |
| Dishwasher | 88 | 82% | 73 | 0.80 | 58 |
| Fryer | 38,563 | 75% | 29,015 | 0.80 | 23,212 |
| Griddle | 4,112 | 100% | 4,119 | 0.80 | 3,295 |
| Kitchen Demand Ventilation Controls | 5,853 | 36% | 2,129 | 0.80 | 1,703 |
| Prescriptive | Boiler Chemical Descaling | 18,910 | 100% | 18,910 | 0.86 | 16,263 |
| Boiler Tune Up, Process | 23,151 | 100% | 23,151 | 0.86 | 19,910 |
| Boiler Tune Up, Space Heating | 284,016 | 100% | 284,108 | 0.86 | 244,333 |
| Combination Oven | 1,514 | 114% | 1,733 | 0.86 | 1,490 |
| Compressed Air Heat Recovery | 1,571 | 100% | 1,571 | 0.86 | 1,351 |
| Fryer | 13,226 | 108% | 14,300 | 0.86 | 12,298 |
| High Efficiency Boiler | 172,254 | 97% | 167,668 | 0.86 | 144,195 |
| High Efficiency Furnace | 16,152 | 104% | 16,746 | 0.86 | 14,402 |
| High Efficiency Furnace | 2,124 | 105% | 2,223 | 0.86 | 1,912 |
| Infrared Charbroiler | 2,120 | 100% | 2,120 | 0.86 | 1,823 |
| Infrared Heaters | 597 | 100% | 597 | 0.86 | 513 |
| Pasta Cooker | 1,380 | 100% | 1,380 | 0.86 | 1,187 |
| Pipe Insulation | 4,290 | 19% | 799 | 0.86 | 687 |
| Small Commercial Thermostat | 1,069 | 82% | 880 | 0.92 | 810 |
| Steam Trap, Commercial | 22,649 | 106% | 23,974 | 0.86 | 20,618 |
| Steam Trap, Dry Cleaner | 47,557 | 101% | 48,065 | 0.86 | 41,336 |
| Steam Trap, Industrial High Pressure | 78,759 | 101% | 79,436 | 0.86 | 68,315 |
| Steam Trap, Industrial Medium Pressure | 199,298 | 102% | 202,720 | 0.86 | 174,340 |
| Water Heater | 624 | 279% | 1,740 | 0.86 | 1,496 |
| Program Total, Disadvantaged Communities | Assessment Direct Install | Faucet Aerator - Bath | 461 | 100% | 461 | 1.00 | 461 |
| Pre-Rinse Spray Valves | 1,187 | 100% | 1,187 | 1.00 | 1,187 |
| Business Optimization Program | Boiler Tune Up, Process | 25,134 | 100% | 25,134 | 1.00 | 25,134 |
| Boiler Tune Up, Space Heating | 1,352 | 100% | 1,352 | 1.00 | 1,352 |
| Steam Trap, Dry Cleaner | 62,835 | 101% | 63,505 | 1.00 | 63,505 |
| Steam Trap, Industrial High Pressure | 318,812 | 101% | 321,471 | 1.00 | 321,471 |
| Steam Trap, Industrial Medium Pressure | 171,464 | 102% | 174,630 | 1.00 | 174,630 |
| Midstream CFS | Combination Oven | 566 | 100% | 566 | 1.00 | 566 |
| Convection Oven | 837 | 81% | 676 | 1.00 | 676 |
| Dishwasher | 455 | 100% | 455 | 1.00 | 455 |
| Fryer | 7,301 | 101% | 7,361 | 1.00 | 7,361 |
| Infrared Salamander Broiler | 240 | 100% | 240 | 1.00 | 240 |
| Kitchen Demand Ventilation Controls | 4,644 | 67% | 3,096 | 1.00 | 3,096 |
| Prescriptive | Boiler Tune Up, Process | 889 | 100% | 889 | 1.00 | 889 |
| Boiler Tune Up, Space Heating | 8,898 | 100% | 8,898 | 1.00 | 8,898 |
| High Efficiency Furnace | 2,638 | 105% | 2,758 | 1.00 | 2,758 |
| Steam Trap, Commercial | 23,985 | 106% | 25,389 | 1.00 | 25,389 |
| Steam Trap, Dry Cleaner | 11,211 | 101% | 11,330 | 1.00 | 11,330 |
| Steam Trap, Industrial High Pressure | 30,831 | 101% | 31,032 | 1.00 | 31,032 |
| Steam Trap, Industrial Medium Pressure | 14,518 | 102% | 14,844 | 1.00 | 14,844 |
|  | **Total** |  | **2,997,733** | **100%** | **3,002,180** |  | **2,751,278** |

\* Realization Rate (RR) is the ratio of verified gross savings to ex ante gross savings, based on evaluation research findings.

† A deemed value. Available on the SAG web site: https://www.ilsag.info/evaluator-ntg-recommendations-for-2023/. Projects in disadvantaged communities designated sites (DAC) have a NTG of 1.0.

Source: Nicor Gas tracking data and Guidehouse evaluation team analysis.

Table 4‑2. 2023 Annual Energy Savings by Measure – Private Sector

| **Program Category** | **Program Path** | **Savings Category** | **Ex Ante Gross Savings (Therms)** | **Verified Gross RR\*** | **Verified Gross Savings (Therms)** | **NTG†** | **Verified Net Savings (Therms)** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Private, Non-Disadvantaged Communities | Assessment Direct Install | Faucet Aerator - Bath | 5,468 | 100% | 5,468 | 0.86 | 4,703 |
| Faucet Aerator - Kitchen | 107 | 100% | 107 | 0.86 | 92 |
| Pre-Rinse Spray Valves | 5,698 | 100% | 5,698 | 0.86 | 4,900 |
| Showerheads | 1,922 | 100% | 1,926 | 0.86 | 1,656 |
| Business Optimization Program | Boiler Tune Up, Process | 52,557 | 100% | 52,557 | 0.92 | 48,353 |
| Pipe Insulation | 4,101 | 12% | 499 | 0.92 | 459 |
| Steam Trap, Dry Cleaner | 294,376 | 101% | 297,518 | 0.92 | 273,717 |
| Steam Trap, Industrial High Pressure | 686,063 | 101% | 691,805 | 0.92 | 636,460 |
| Steam Trap, Industrial Medium Pressure | 250,374 | 102% | 255,655 | 0.92 | 235,203 |
| Midstream CFS | Automatic Conveyor Broiler | 61,526 | 100% | 61,526 | 0.80 | 49,221 |
| Convection Oven | 3,742 | 78% | 2,922 | 0.80 | 2,338 |
| Dishwasher | 88 | 82% | 73 | 0.80 | 58 |
| Fryer | 35,587 | 77% | 27,233 | 0.80 | 21,786 |
| Griddle | 4,112 | 100% | 4,119 | 0.80 | 3,295 |
| Kitchen Demand Ventilation Controls | 5,853 | 36% | 2,129 | 0.80 | 1,703 |
| Prescriptive | Boiler Chemical Descaling | 18,910 | 100% | 18,910 | 0.86 | 16,263 |
| Boiler Tune Up, Process | 23,151 | 100% | 23,151 | 0.86 | 19,910 |
| Boiler Tune Up, Space Heating | 107,894 | 100% | 107,754 | 0.86 | 92,668 |
| Combination Oven | 1,514 | 114% | 1,733 | 0.86 | 1,490 |
| Compressed Air Heat Recovery | 1,571 | 100% | 1,571 | 0.86 | 1,351 |
| Fryer | 13,226 | 108% | 14,300 | 0.86 | 12,298 |
| High Efficiency Boiler | 56,449 | 87% | 49,308 | 0.86 | 42,405 |
| High Efficiency Furnace | 16,152 | 104% | 16,746 | 0.86 | 14,402 |
| Infrared Charbroiler | 2,120 | 100% | 2,120 | 0.86 | 1,823 |
| Infrared Heaters | 597 | 100% | 597 | 0.86 | 513 |
| Pasta Cooker | 1,380 | 100% | 1,380 | 0.86 | 1,187 |
| Pipe Insulation | 4,290 | 19% | 799 | 0.86 | 687 |
| Small Commercial Thermostat | 808 | 80% | 646 | 0.92 | 594 |
| Steam Trap, Commercial | 18,637 | 106% | 19,728 | 0.86 | 16,966 |
| Steam Trap, Dry Cleaner | 47,557 | 101% | 48,065 | 0.86 | 41,336 |
| Steam Trap, Industrial High Pressure | 78,759 | 101% | 79,436 | 0.86 | 68,315 |
| Steam Trap, Industrial Medium Pressure | 199,298 | 102% | 202,720 | 0.86 | 174,340 |
| Water Heater | 381 | 393% | 1,497 | 0.86 | 1,287 |
| Private, Disadvantaged Communities | Assessment Direct Install | Faucet Aerator - Bath | 441 | 100% | 441 | 1.00 | 441 |
| Pre-Rinse Spray Valves | 1,187 | 100% | 1,187 | 1.00 | 1,187 |
| Business Optimization Program | Boiler Tune Up, Process | 23,705 | 100% | 23,705 | 1.00 | 23,705 |
| Steam Trap, Dry Cleaner | 62,835 | 101% | 63,505 | 1.00 | 63,505 |
| Steam Trap, Industrial High Pressure | 318,812 | 101% | 321,471 | 1.00 | 321,471 |
| Steam Trap, Industrial Medium Pressure | 171,464 | 102% | 174,630 | 1.00 | 174,630 |
| Midstream CFS | Combination Oven | 566 | 100% | 566 | 1.00 | 566 |
| Convection Oven | 837 | 81% | 676 | 1.00 | 676 |
| Dishwasher | 455 | 100% | 455 | 1.00 | 455 |
| Fryer | 7,301 | 101% | 7,361 | 1.00 | 7,361 |
| Infrared Salamander Broiler | 240 | 100% | 240 | 1.00 | 240 |
| Kitchen Demand Ventilation Controls | 4,644 | 67% | 3,096 | 1.00 | 3,096 |
| Prescriptive | Boiler Tune Up, Space Heating | 2,317 | 100% | 2,317 | 1.00 | 2,317 |
| High Efficiency Furnace | 2,638 | 105% | 2,758 | 1.00 | 2,758 |
| Steam Trap, Dry Cleaner | 11,211 | 101% | 11,330 | 1.00 | 11,330 |
| Steam Trap, Industrial Medium Pressure | 9,602 | 102% | 9,766 | 1.00 | 9,766 |
|  | **Total** |  | **2,622,524** | **100%** | **2,623,199** |  | **2,415,283** |

\* Realization Rate (RR) is the ratio of verified gross savings to ex ante gross savings, based on evaluation research findings.

† A deemed value. Available on the SAG web site: https://www.ilsag.info/evaluator-ntg-recommendations-for-2023/. Projects in disadvantaged communities designated sites (DAC) have a NTG of 1.0.

Source: Nicor Gas tracking data and Guidehouse evaluation team analysis.

Table 4‑3. 2023 Annual Energy Savings by Measure – Public Sector

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Savings Category** | **Program Path** | **Savings Category** | **Ex Ante Gross Savings (Therms)** | **Verified Gross RR\*** | **Verified Gross Savings (Therms)** | **NTG†** | **Verified Net Savings (Therms)** |
| Public, Non-Disadvantaged Communities | Assessment Direct Install | Faucet Aerator - Bath | 341 | 100% | 341 | 0.86 | 293 |
| Faucet Aerator - Kitchen | 4 | 100% | 4 | 0.86 | 4 |
| Pre-Rinse Spray Valves | 237 | 100% | 237 | 0.86 | 204 |
| Showerheads | 43 | 100% | 43 | 0.86 | 37 |
| Business Optimization Program | Steam Trap, Commercial | 2,407 | 106% | 2,548 | 0.92 | 2,344 |
| Midstream CFS | Convection Oven | 631 | 94% | 595 | 0.80 | 476 |
| Fryer | 2,976 | 60% | 1,783 | 0.80 | 1,426 |
| Prescriptive | Boiler Tune Up, Space Heating | 176,121 | 100% | 176,355 | 0.86 | 151,665 |
| High Efficiency Boiler | 115,805 | 102% | 118,360 | 0.86 | 101,790 |
| High Efficiency Furnace | 2,124 | 105% | 2,223 | 0.86 | 1,912 |
| Small Commercial Thermostat | 262 | 89% | 234 | 0.92 | 215 |
| Steam Trap, Commercial | 4,012 | 106% | 4,246 | 0.86 | 3,652 |
| Water Heater | 243 | 100% | 243 | 0.86 | 209 |
| Public, Disadvantaged Communities | Assessment Direct Install | Faucet Aerator - Bath | 20 | 100% | 20 | 1.00 | 20 |
| Business Optimization Program | Boiler Tune Up, Process | 1,429 | 100% | 1,429 | 1.00 | 1,429 |
| Boiler Tune Up, Space Heating | 1,352 | 100% | 1,352 | 1.00 | 1,352 |
| Prescriptive | Boiler Tune Up, Process | 889 | 100% | 889 | 1.00 | 889 |
| Boiler Tune Up, Space Heating | 6,581 | 100% | 6,581 | 1.00 | 6,581 |
| Steam Trap, Commercial | 23,985 | 106% | 25,389 | 1.00 | 25,389 |
| Steam Trap, Industrial High Pressure | 30,831 | 101% | 31,032 | 1.00 | 31,032 |
| Steam Trap, Industrial Medium Pressure | 4,917 | 103% | 5,078 | 1.00 | 5,078 |
|  | **Total** |  | **375,210** | **101%** | **378,981** |  | **335,996** |

\* Realization Rate (RR) is the ratio of verified gross savings to ex ante gross savings, based on evaluation research findings.

† A deemed value. Available on the SAG web site: https://www.ilsag.info/evaluator-ntg-recommendations-for-2023/. Projects in disadvantaged communities designated sites (DAC) have a NTG of 1.0.

*Source: Nicor Gas tracking data and Guidehouse evaluation team analysis.*

# Impact Analysis Findings and Recommendations

## Impact Parameter Estimates

Table 5‑1 shows the unit therm savings and realization rate findings by measure from the evaluation team’s review. The realization rate is the ratio of the verified savings to the ex ante savings. Following Table 5‑1 are findings and recommendations, including discussion of all measures with realization rates more or less than 100%. The findings and recommendations presented are specific to individual measures, the program realization rate is 100%. Appendix A provides a description of the impact analysis methodology.

Table 5‑1. 2023 Verified Gross Savings Parameters

| **Measure** | **Unit Basis** | **Ex Ante Gross (therms/unit)** | **Verified Gross (therms/unit)** | **Realization Rate** | **Data Source(s)** |
| --- | --- | --- | --- | --- | --- |
| Automatic Conveyor Broiler | Each | Varies | Varies | 100% | Program Tracking Data (PTD)\*  IL TRM†, 4.2.22, |
| Boiler Chemical Descaling | Each | Varies | Varies | 100% | IL TRM, 4.4.49, PTD |
| Boiler Tune Up, Process | Each | Varies | Varies | 100% | IL TRM, 4.4.3, PTD |
| Boiler Tune Up, Space Heating | Each | Varies | Varies | 100% | IL TRM, 4.4.2, PTD |
| Combination Oven | Each | Varies | Varies | 111% | IL TRM, 4.2.1, PTD |
| Compressed Air Heat Recovery | Each | Varies | Varies | 100% | IL TRM, 4.7.9, PTD |
| Convection Oven | Each | Varies | Varies | 80% | IL TRM, 4.2.5, IL TRM v11.0 Errata Memo, PTD |
| Dishwasher | Each | Varies | Varies | 97% | IL TRM, 4.2.6, PTD |
| Faucet Aerator - Bath | Each | Varies | Varies | 100% | IL TRM, 4.3.2, PTD |
| Faucet Aerator - Kitchen | Each | Varies | Varies | 100% | IL TRM, 4.3.2, PTD |
| Fryer | Each | Varies | Varies | 86% | IL TRM, 4.2.7, PTD |
| Griddle | Each | Varies | Varies | 100% | IL TRM, 4.2.8, PTD |
| High Efficiency Boiler | Each | Varies | Varies | 97% | IL TRM, 4.4.10, PTD |
| High Efficiency Furnace | Each | Varies | Varies | 104% | IL TRM, 4.4.11, PTD |
| Infrared Charbroiler | Each | Varies | Varies | 100% | IL TRM, 4.2.12, PTD |
| Infrared Heaters | Each | Varies | Varies | 100% | IL TRM, 4.4.12, PTD |
| Infrared Salamander Broiler | Each | Varies | Varies | 100% | IL TRM, 4.2.14, PTD |
| Kitchen Demand Ventilation Controls | Each | Varies | Varies | 50% | IL TRM, 4.2.16, PTD |
| Pasta Cooker | Each | 1,380 | 1,380 | 100% | IL TRM, 4.2.17, PTD |
| Pipe Insulation | Ln Ft | Varies | Varies | 15% | IL TRM, 4.4.14, PTD |
| Pre-Rinse Spray Valves | Each | Varies | Varies | 100% | IL TRM, 4.2.11, PTD |
| Showerheads | Each | Varies | Varies | 100% | IL TRM, 4.3.3, PTD |
| Small Commercial Thermostat | Each | Varies | Varies | 82% | IL TRM, 4.4.48, PTD |
| Steam Trap, Commercial | Each | Varies | Varies | 106% | IL TRM, 4.4.16, PTD |
| Steam Trap, Dry Cleaner | Each | Varies | Varies | 101% | IL TRM, 4.4.16, PTD |
| Steam Trap, Industrial High Pressure | Each | Varies | Varies | 101% | IL TRM, 4.4.16, PTD |
| Steam Trap, Industrial Medium Pressure | Each | Varies | Varies | 102% | IL TRM, 4.4.16, PTD |
| Water Heater | Each | Varies | Varies | 279% | IL TRM, 4.3.1, PTD |

\* Program Tracking Data (PTD) provided by Nicor Gas, extract dated January 30, 2024.

† State of Illinois Technical Reference Manual version 11.0 from <http://www.ilsag.info/technical-reference-manual.html>**.**

## Findings and Recommendations

**Finding 1.** The evaluation team compared inputs in the tracking data to the Qualified Products List (QPL) according to manufacturer and model number. The Fryer, Convection Oven, Griddle, Dishwasher, Automatic Conveyor Broiler, and Combination Oven measures had certain efficient measure inputs that did not match between the tracking data and QPL. Verified savings values utilize the QPL values in those cases. More details can be seen in Appendix B for the Fryer, Convection Oven, Griddle, and Combination Oven details as these had savings inputs provided in the tracking data.

It should be noted the evaluation team did not utilize the QPL for every measure of the Food Service Equipment end use:

* The Infrared Salamander Broiler because the QPL efficient input rate was larger than the tracking data’s provided base input rate.
* The Infrared Charbroiler because the Vulcan VCCB25 specifics could not be found.
* The Fryer measure of the model Henny Penny EEG-16# because it could not be found in the QPL.
* Kitchen Demand Ventilation Controls because the QPL only provided incentive values.
* Pre-Rinse Spray Valves because the evaluation team understood ex ante savings to follow the Illinois Technical Reference Manual version 11.0 (IL TRM v11.0).

**Recommendation 1.** Review the QPL and tracking data, and ensure reported measure input values and ex ante savings reflect the correct efficient values.

**Finding 2.** We found a few cases where the tracking database was missing important inputs. In such cases the evaluation team made some assumptions to calculate savings for a few of the program measures:

* The tracking data did not have details for Dishwasher and Automatic Conveyor Broilers. The IL TRM v11.0 deemed inputs and the QPL values for efficient input cases were used for verified savings calculations. These measures had a realization rate of 100%, except for the Dishwasher in VendorProjectID 1284350.
* The evaluation team assumed the Griddle width value provided in the tracking data was in inches for all instances of the measure and divided it by 12 before including it in the savings calculation.
* In the tracking data, Pre-Rinse Spray Values have a base case flow (FLO\_base) value of 1.9 and an efficient case flow (FLO\_eff) value of 1.06 for Measure IDs MC-9365289 MC-9395754 MC-9396077 MC-9537424 MC-9466652 MC-9474601 MC-9492688 MC-9395408 MC-9412680. However, the evaluation team found these measures’ ex ante savings use a FLO\_base value of 2.14 and a FLOW\_eff value of 0.98, which align with the IL TRM v11.0. For verified savings, the evaluation team also used the TRM values.
* Convection Ovens with the tracking data Manufacturer Nieco were Vulcan (Measure ID 1208832) and Southbend (Measure ID 1294946) according to the QPL.

**Recommendation 2.** Review the manufacturer information. Ensure the tracking data reflects all necessary input values and conclusions used in ex ante savings values.

**Finding 3.** The evaluation team was unable to replicate ex ante savings for some Fryer measures (Measure IDs 1338244 1178352 1284375 1301116 1395844 1395850 1160269 1239078) and all Convection Oven measures before applying the QPL changes as noted in Finding 1. The evaluation team was also unable to replicate ex ante savings for two of the Kitchen Demand Controlled Ventilation measures (Measure IDs 1290233 and 1338278), as well as the Boiler Tune Up – Space Heating measure with Measure ID MLI – 11637952.

**Recommendation 3.** Ensure the tracking data reflect the savings assumptions and inputs reflect the ex ante savings values reported for their respective measures.

**Finding 4.** During the midyear interim impact analysis[[1]](#footnote-2), the evaluation team was unable to recreate ex ante savings for a number of the High Efficiency Boiler, High Efficiency Furnace, Pipe Insulation, and Water Heater measures. These issues were not addressed in the final tracking data used for this report.

**Recommendation 4.** Provide more information behind the ex ante calculations for these measures. Ensure all inputs align with IL TRM or values provided in the tracking data could be used to reproduce the ex ante savings.

**Finding 5.** The steam trap ex ante savings appear to use deemedTRM inputs, steam loss per leaking trap (Sa) and temperature of saturated steam (T1) for the Industrial Steam Trap measures. This approach is consistent with the verified savings approach. However, the ex ante appear to use values from the tracking data field Utilization Factor for T1. The evaluation team is unsure of the source of these values, so verified savings use the deemed T1 values in IL TRM v11.0.

**Recommendation 5.** The program should utilize the “Measure Notes” field in the tracking data to document outliers in savings inputs or changes in savings calculation methodologies.

**Finding 6a.** The evaluation team calculated a realization rate of negative 99% for the Boiler Tune Up – Space Heating measure with Measure ID MLI – 13372384. Verified savings utilize the values provided in the tracking data, specifically Post Installation Efficiency and Pre Installation Efficiency values as they are documented in the data columns.

**Finding 6b.** The Boiler Tune Up – Space Heating measures with Measure IDs MLI - 14053045 and MLI – 14053062 are in climate zone 3 and verified savings utilize the associated Equivalent Full Load Hours (EFLH) values. The evaluation team observed ex ante savings for these measures use the EFLH value associated with Climate Zone 2.

**Recommendation 6.** Review ex ante savings calculations for all Boiler Tune Up – Space Heating measures. Ensure the information provided in the tracking data aligns with the calculated ex ante savings and the project’s climate zone information.

**Finding 7.** The ex ante savings use a baseline adjustment factor (BAF) value of 1.0 for the Small Commercial Thermostat measure. The tracking data does not provide information about a baseline measure, so verified savings use a BAF of 0.8 for unknown. Additionally, the evaluation team was unable to recreate ex ante savings for Measure ID MLI – 10318635.

**Recommendation 7.** Provide a field in the tracking data that contains information about the baseline thermostat. Ensure the ex ante savings reflect TRM values provided in the tracking data.

##### Impact Analysis Methodology

Guidehouse calculated the verified gross savings for each measure type by conducting a review of the tracking data and applying the algorithms of IL TRM v11.0[[2]](#footnote-3) and IL TRM v11.0 Errata Memo[[3]](#footnote-4). The evaluation team checked that provided savings inputs from the tracking data matched IL TRM v11.0 and that custom inputs were properly used. Then the tracking data and custom values used for the verified savings were adjusted from the tracking data, as necessary. The savings algorithms were applied to determine the verified savings of each measure. Verified gross realization rates are calculated by dividing the verified savings by the ex ante gross savings.

For most Food Service Equipment end use measures (applicable measures can be found in the Assessment Direct Install, Midstream CFS, and Prescriptive program paths), Guidehouse conducted an additional tracking data verification step. The evaluation team compared the tracking data values for these ENERGY STAR measures to the ENERGY STAR QPLs[[4]](#footnote-5) by manufacturer and model number. Where the team found tracking data values and QPLs values disagreed, the evaluation team updated the tracking data using the QPL values. This approach aligns with Guidehouse’s process for the ComEd and Peoples Gas and North Shore Gas evaluations.

The evaluation team calculated verified net savings by multiplying the verified gross savings estimates by a NTGR deemed by a consensus process through the IL SAG.[[5]](#footnote-6) Measures installed in a disadvantaged community designated site, identified using the provided tracking data column DAC - ILSFA IE tract, used a NTG ratio of 1.00.

##### Impact Analysis Supplemental Information

Table B‑1. Combination Oven Energy Star QPL Values Used for Verified Savings

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Program Path** | **Measure ID** | **Convection Cooking Energy Efficiency** | **Steam Cooking Energy Efficiency** | **Convection Production Capacity** | **Steam Production Capacity** | **Number of Pans** | **Realization Rate** |
| Midstream CFS | 1269849 | 0.62 | 0.58 | 414 | 688 | 40 | 100% |
| Prescriptive | MLI - 13005301 | 0.6 | 0.48 | 117 | 181 | 12 | 114% |
| Prescriptive | MLI - 13005575 | 0.6 | 0.48 | 117 | 181 | 12 | 114% |
| Prescriptive | MLI - 13005661 | 0.6 | 0.48 | 117 | 181 | 12 | 114% |

Source: Nicor Gas tracking data, Energy Star QPL, and evaluation team analysis.

Table B‑2. Convection Oven Energy Star QPL Values Used for Verified Savings

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Program Path** | **Measure ID** | **Cooking Efficiency** | **Production Capacity** | **Preheat Energy Rate** | **Idle Energy Rate** | **Realization Rate** |
| Midstream CFS | 1165910 | 0.51\* | 78\* | 40,000 | 6,798\* | 109% |
| Midstream CFS | 1199171 | 0.51\* | 78\* | 40,000 | 6,798\* | 109% |
| Midstream CFS | 1200480 | 0.51\* | 78\* | 40,000 | 6,798\* | 109% |
| Midstream CFS | 1208832 | 0.5\* | 79\* | 50,000 | 9,473\* | 46% |
| Midstream CFS | 1221146 | 0.51\* | 78\* | 40,000 | 6,798\* | 109% |
| Midstream CFS | 1221148 | 0.51\* | 78\* | 40,000 | 6,798\* | 109% |
| Midstream CFS | 1221709 | 0.53\* | 90\* | 45,000 | 7,179\* | 108% |
| Midstream CFS | 1245032 | 0.51 | 96\* | 50,000 | 8,651 | 87% |
| Midstream CFS | 1275735 | 0.51 | 96\* | 50,000 | 8,651 | 47% |
| Midstream CFS | 1294946 | 0.51\* | 78\* | 40,000 | 6,798\* | 49% |
| Midstream CFS | 1303294 | 0.55\* | 95\* | 70,000 | 8,866\* | 45% |

\* Tracking data and Energy Star QPL match

Source: Nicor Gas tracking data, Energy Star QPL, and evaluation team analysis.

Table B‑3. Fryer Energy Star QPL Values Used for Verified Savings

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Program Path** | **Measure ID** | **Cooking Efficiency** | **Production Capacity** | **Preheat Energy Rate** | **Idle Energy Rate** | **Realization Rate** |
| Midstream CFS | 1156120 | 0.5\* | 58\* | 11,903 | 7,966\* | 103% |
| Midstream CFS | 1160269 | 0.54\* | 60\* | 10,592 | 8,764\* | 100% |
| Midstream CFS | 1166708 | 0.5\* | 58\* | 11,903 | 7,966\* | 103% |
| Midstream CFS | 1174229 | 0.54\* | 60\* | 10,592 | 8,764\* | 103% |
| Midstream CFS | 1176760 | 0.5\* | 58\* | 11,903 | 7,966\* | 103% |
| Midstream CFS | 1176768 | 0.5\* | 58\* | 11,903 | 7,966\* | 103% |
| Midstream CFS | 1178352 | 0.6\* | 66\* | 9,265\* | 3,832\* | 25% |
| Midstream CFS | 1180898 | 0.5\* | 58\* | 11,903 | 7,966\* | 103% |
| Midstream CFS | 1182693 | 0.5\* | 58\* | 11,903 | 7,966\* | 103% |
| Midstream CFS | 1186656 | 0.5\* | 58\* | 11,903 | 7,966\* | 103% |
| Midstream CFS | 1191569 | 0.5\* | 58\* | 11,903 | 7,966\* | 103% |
| Midstream CFS | 1192596 | 0.5\* | 58\* | 11,903 | 7,966\* | 103% |
| Midstream CFS | 1205208 | 0.5 | 57 | 9,785 | 7,296 | 104% |
| Midstream CFS | 1206261 | 0.5 | 57 | 9,785 | 7,296 | 104% |
| Midstream CFS | 1210529 | 0.5\* | 58\* | 11,903 | 7,966\* | 103% |
| Midstream CFS | 1210911 | 0.5\* | 58\* | 11,903 | 7,966\* | 103% |
| Midstream CFS | 1222361 | 0.5\* | 58\* | 11,903\* | 7,966\* | 100% |
| Midstream CFS | 1225500 | 0.5\* | 58\* | 11,903\* | 7,966\* | 100% |
| Midstream CFS | 1225504 | 0.5\* | 58\* | 11,903\* | 7,966\* | 100% |
| Midstream CFS | 1225516 | 0.5\* | 58\* | 11,903\* | 7,966\* | 100% |
| Midstream CFS | 1225577 | 0.5\* | 58\* | 11,903\* | 7,966\* | 100% |
| Midstream CFS | 1226813 | 0.5\* | 49\* | 10,470\* | 7,317\* | 100% |
| Midstream CFS | 1232426 | 0.54\* | 60\* | 10,592\* | 8,764\* | 100% |
| Midstream CFS | 1239078 | 0.5 | 49 | 10,470\* | 7,317\* | 100% |
| Midstream CFS | 1241183 | 0.5\* | 57\* | 9,785\* | 7,296\* | 100% |
| Midstream CFS | 1275163 | 0.5\* | 49\* | 10,470\* | 7,317\* | 100% |
| Midstream CFS | 1276384 | 0.5\* | 57\* | 9,785\* | 7,296\* | 100% |
| Midstream CFS | 1279015 | 0.5\* | 49\* | 10,470\* | 7,317\* | 100% |
| Midstream CFS | 1284375 | 0.5\* | 72\* | 13,755\* | 7,040\* | 33% |
| Midstream CFS | 1286944 | 0.54\* | 60\* | 10,592\* | 8,764\* | 100% |
| Midstream CFS | 1288772 | 0.5\* | 49\* | 10,470\* | 7,317\* | 100% |
| Midstream CFS | 1292474 | 0.54\* | 60\* | 10,592\* | 8,764\* | 100% |
| Midstream CFS | 1296990 | 0.5\* | 49\* | 10,470\* | 7,317\* | 100% |
| Midstream CFS | 1297003 | 0.5\* | 49\* | 10,470\* | 7,317\* | 100% |
| Midstream CFS | 1301116 | 0.53\* | 66\* | 8,141\* | 7,409\* | 33% |
| Midstream CFS | 1302728 | 0.5\* | 58\* | 11,903\* | 7,966\* | 100% |
| Midstream CFS | 1302746 | 0.5\* | 58\* | 11,903\* | 7,966\* | 100% |
| Midstream CFS | 1306414 | 0.5\* | 49\* | 10,470\* | 7,317\* | 100% |
| Midstream CFS | 1306418 | 0.5\* | 49\* | 10,470\* | 7,317\* | 100% |
| Midstream CFS | 1308297 | 0.5\* | 58\* | 11,903\* | 7,966\* | 100% |
| Midstream CFS | 1310780 | 0.5\* | 49\* | 10,470\* | 7,317\* | 100% |
| Midstream CFS | 1336157 | 0.5\* | 49\* | 10,470\* | 7,317\* | 100% |
| Midstream CFS | 1338244 | 0.56\* | 107\* | 16,935\* | 11,819\* | 20% |
| Midstream CFS | 1388642 | 0.5\* | 49\* | 10,470\* | 7,317\* | 100% |
| Midstream CFS | 1392916 | 0.5\* | 58\* | 11,903\* | 7,966\* | 100% |
| Midstream CFS | 1395844 | 0.54\* | 64\* | 8,935\* | 5,790\* | 33% |
| Midstream CFS | 1395850 | 0.54\* | 64\* | 8,935\* | 5,790\* | 33% |
| Prescriptive | MLI - 13372073 | 0.61 | 99 | 14,884 | 11,226 | 111% |
| Prescriptive | MLI - 13372257 | 0.61 | 99 | 14,884 | 11,226 | 111% |
| Prescriptive | MLI - 13372375 | 0.61 | 99 | 14,884 | 11,226 | 111% |
| Prescriptive | MC-9422003 | 0.54\* | 67 | 10,275 | 8,510 | 108% |

\* Tracking data and Energy Star QPL match

Source: Nicor Gas tracking data, Energy Star QPL, and evaluation team analysis.

Table B‑4. Griddle Energy Star QPL Values Used for Verified Savings

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Program Path** | **Measure ID** | **Cooking Efficiency** | **Production Capacity** | **Griddle Surface Area** | **Preheat Energy Rate** | **Idle Energy Rate** | **Realization Rate** |
| Midstream CFS | 1395834 | 0.51\* | 11.9\* | 6.00\* | 2,817 | 1,418\* | 112% |
| Midstream CFS | 1395841 | 0.48\* | 12.5\* | 5.57 | 1,886 | 906\* | 99% |
| Midstream CFS | 1395843 | 0.48\* | 12.5\* | 5.57 | 1,886 | 906\* | 99% |
| Midstream CFS | 1395848 | 0.48\* | 12.5\* | 5.57 | 1,886 | 906\* | 99% |
| Midstream CFS | 1395858 | 0.48\* | 12.5\* | 5.57 | 1,886 | 906\* | 99% |

\* Tracking data and Energy Star QPL match

Source: Nicor Gas tracking data, Energy Star QPL, and evaluation team analysis.

##### Program Specific Inputs for the Illinois TRC

Table C‑1 shows the Total Resource Cost (TRC) cost-effectiveness analysis inputs available at the time of producing this impact evaluation report. Additional required cost data (e.g., measure costs, program level incentive and non-incentive costs) are not included in Table C‑1 and will be provided to the evaluation team later. Guidehouse will include annual and lifetime water savings and greenhouse gas reductions in the end of year summary report.

Table C‑1. 2023 Cost Effectiveness Inputs

| **Program Category** | **Program Path** | **Savings Category** | **Units** | **Quantity** | **Effective Useful Life** | **Ex Ante Gross Savings (Therms)** | **Verified Gross Savings (Therms)** | **Verified Net Savings (Therms)** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Private, Non-Disadvantaged Communities | Assessment Direct Install | Faucet Aerator - Bath | Each | 437 | 10.0 | 5,468 | 5,468 | 4,703 |
| Faucet Aerator - Kitchen | Each | 7 | 10.0 | 107 | 107 | 4,900 |
| Pre-Rinse Spray Valves | Each | 24 | 5.0 | 5,698 | 5,698 | 1,656 |
| Showerheads | Each | 89 | 10.0 | 1,922 | 1,926 | 459 |
| Business Optimization Program | Boiler Tune Up, Process | Each | 24 | 2.0 | 52,557 | 52,557 | 273,717 |
| Pipe Insulation | Ln Ft | 1,926 | 15.0 | 4,101 | 499 | 235,203 |
| Steam Trap, Dry Cleaner | Each | 426 | 6.0 | 294,376 | 297,518 | 49,221 |
| Steam Trap, Industrial High Pressure\* | Each | 121 | 6.2 | 686,063 | 691,805 | 58 |
| Steam Trap, Industrial Medium Pressure\* | Each | 140 | 8.6 | 250,374 | 255,655 | 3,295 |
| Midstream CFS | Automatic Conveyor Broiler | Each | 21 | 12.0 | 61,526 | 61,526 | 16,263 |
| Convection Oven | Each | 13 | 12.0 | 3,742 | 2,922 | 92,668 |
| Dishwasher\* | Each | 1 | 14.3 | 88 | 73 | 1,351 |
| Fryer | Each | 44 | 12.0 | 35,587 | 27,233 | 42,405 |
| Griddle | Each | 7 | 12.0 | 4,112 | 4,119 | 1,823 |
| Kitchen Demand Ventilation Controls | Each | 1 | 20.0 | 5,853 | 2,129 | 1,187 |
| Prescriptive | Boiler Chemical Descaling | Each | 3 | 6.0 | 18,910 | 18,910 | 594 |
| Boiler Tune Up, Process | Each | 5 | 2.0 | 23,151 | 23,151 | 16,966 |
| Boiler Tune Up, Space Heating | Each | 22 | 3.0 | 107,894 | 107,754 | 41,336 |
| Combination Oven | Each | 3 | 12.0 | 1,514 | 1,733 | 174,340 |
| Compressed Air Heat Recovery | Each | 1 | 15.0 | 1,571 | 1,571 | 1,287 |
| Fryer | Each | 24 | 12.0 | 13,226 | 14,300 | 441 |
| High Efficiency Boiler | Each | 15 | 25.0 | 56,449 | 49,308 | 1,187 |
| High Efficiency Furnace | Each | 57 | 16.5 | 16,152 | 16,746 | 23,705 |
| Infrared Charbroiler | Each | 3 | 12.0 | 2,120 | 2,120 | 321,471 |
| Infrared Heaters | Each | 3 | 15.0 | 597 | 597 | 174,630 |
| Pasta Cooker | Each | 1 | 12.0 | 1,380 | 1,380 | 566 |
| Pipe Insulation | Ln Ft | 1,307 | 15.0 | 4,290 | 799 | 676 |
| Small Commercial Thermostat | Each | 6 | 11.0 | 808 | 646 | 455 |
| Steam Trap, Commercial | Each | 115 | 6.0 | 18,637 | 19,728 | 7,361 |
| Steam Trap, Dry Cleaner | Each | 80 | 6.0 | 47,557 | 48,065 | 240 |
| Steam Trap, Industrial High Pressure | Each | 14 | 6.0 | 78,759 | 79,436 | 2,317 |
| Steam Trap, Industrial Medium Pressure | Each | 69 | 6.0 | 199,298 | 202,720 | 2,758 |
| Water Heater | Each | 3 | 15.0 | 381 | 1,497 | 9,766 |
| Private, Disadvantaged Communities | Assessment Direct Install | Faucet Aerator - Bath | Each | 38 | 10.0 | 441 | 441 | 92 |
| Pre-Rinse Spray Valves | Each | 5 | 5.0 | 1,187 | 1,187 | 48,353 |
| Business Optimization Program | Boiler Tune Up, Process | Each | 4 | 2.0 | 23,705 | 23,705 | 636,460 |
| Steam Trap, Dry Cleaner | Each | 98 | 6.0 | 62,835 | 63,505 | 2,338 |
| Steam Trap, Industrial High Pressure\* | Each | 54 | 6.5 | 318,812 | 321,471 | 21,786 |
| Steam Trap, Industrial Medium Pressure | Each | 77 | 6.0 | 171,464 | 174,630 | 1,703 |
| Midstream CFS | Combination Oven | Each | 1 | 12.0 | 566 | 566 | 19,910 |
| Convection Oven | Each | 3 | 12.0 | 837 | 676 | 1,490 |
| Dishwasher\* | Each | 1 | 14.3 | 455 | 455 | 12,298 |
| Fryer | Each | 12 | 12.0 | 7,301 | 7,361 | 14,402 |
| Infrared Salamander Broiler | Each | 1 | 12.0 | 240 | 240 | 513 |
| Kitchen Demand Ventilation Controls | Each | 2 | 20.0 | 4,644 | 3,096 | 687 |
| Prescriptive | Boiler Tune Up, Space Heating | Each | 3 | 3.0 | 2,317 | 2,317 | 68,315 |
| High Efficiency Furnace | Each | 10 | 16.5 | 2,638 | 2,758 | 63,505 |
| Steam Trap, Dry Cleaner | Each | 18 | 6.0 | 11,211 | 11,330 | 3,096 |
| Steam Trap, Industrial Medium Pressure | Each | 14 | 6.0 | 9,602 | 9,766 | 11,330 |
| Public, Non-Disadvantaged Communities | Assessment Direct Install | Faucet Aerator - Bath | Each | 34 | 10.0 | 341 | 341 | 293 |
| Faucet Aerator - Kitchen | Each | 1 | 10.0 | 4 | 4 | 204 |
| Pre-Rinse Spray Valves | Each | 1 | 5.0 | 237 | 237 | 37 |
| Showerheads | Each | 2 | 10.0 | 43 | 43 | 2,344 |
| Business Optimization Program | Steam Trap, Commercial | Each | 12 | 6.0 | 2,407 | 2,548 | 151,665 |
| Midstream CFS | Convection Oven | Each | 3 | 12.0 | 631 | 595 | 101,790 |
| Fryer | Each | 3 | 12.0 | 2,976 | 1,783 | 1,912 |
| Prescriptive | Boiler Tune Up, Space Heating | Each | 85 | 3.0 | 176,121 | 176,355 | 3,652 |
| High Efficiency Boiler | Each | 21 | 25.0 | 115,805 | 118,360 | 20 |
| High Efficiency Furnace | Each | 7 | 16.5 | 2,124 | 2,223 | 1,429 |
| Small Commercial Thermostat | Each | 1 | 11.0 | 262 | 234 | 1,352 |
| Steam Trap, Commercial | Each | 20 | 6.0 | 4,012 | 4,246 | 889 |
| Water Heater | Each | 1 | 15.0 | 243 | 243 | 5,078 |
| Public, Disadvantaged Communities | Assessment Direct Install | Faucet Aerator - Bath | Each | 6 | 10.0 | 20 | 20 | 4 |
| Business Optimization Program | Boiler Tune Up, Process | Each | 1 | 2.0 | 1,429 | 1,429 | 476 |
| Boiler Tune Up, Space Heating | Each | 5 | 3.0 | 1,352 | 1,352 | 1,426 |
| Prescriptive | Boiler Tune Up, Process | Each | 1 | 2.0 | 889 | 889 | 215 |
| Boiler Tune Up, Space Heating | Each | 2 | 3.0 | 6,581 | 6,581 | 209 |
| Steam Trap, Commercial | Each | 110 | 6.0 | 23,985 | 25,389 | 6,581 |
| Steam Trap, Industrial High Pressure | Each | 8 | 6.0 | 30,831 | 31,032 | 25,389 |
| Steam Trap, Industrial Medium Pressure | Each | 10 | 6.0 | 4,917 | 5,078 | 31,032 |
| **Total** |  |  |  |  | **7.3** | **2,997,733** | **3,002,180** | **2,751,278** |

Note: DAC Project is a project done in a disadvantaged community designated site. This information was sourced from the tracking data.

\*Weighted EUL based on measure details. Steam Trap EUL values vary between Venturi steam traps (20 years EUL) and regular steam traps (6 years). Dishwasher EUL values vary based on dishwasher type.

*Source: Nicor Gas tracking data and Guidehouse evaluation team analysis.*

1. Nicor Gas 2023 Interim Impact Review Summary Findings (email on 11/17/2024). [↑](#footnote-ref-2)
2. Available on the Illinois Stakeholder Advisory Group website: <https://www.ilsag.info/technical-reference-manual/il-statewide-technical-reference-manual-version-11-0/> [↑](#footnote-ref-3)
3. Ibid [↑](#footnote-ref-4)
4. Obtained from the Implementation Contractor for the 2023 calendar year: <https://www.il-foodservicerebates.com/qualifying-equipment> [↑](#footnote-ref-5)
5. Available on the Illinois Stakeholder Advisory Group website: <https://www.ilsag.info/evaluator-ntg-recommendations-for-2023/> [↑](#footnote-ref-6)