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|  | C&I and Public Sector Prescriptive Program Impact Evaluation Report  Energy Efficiency Plan: Program Year 2023  (1/1/2023-12/31/2023) | | | |
|  | Prepared for:  Peoples Gas and North Shore Gas  DRAFT  **April 3, 2024** | | | |
|  | Prepared by: | |  | |
|  | Sophie Berne  Guidehouse | |  | |
| **guidehouse.com** |  |  |  |  |

**Submitted to:**

Peoples Gas

North Shore Gas

200 East Randolph Street

Chicago, IL 60601

**Submitted by:**

Guidehouse

150 N. Riverside Plaza, Suite 2100

Chicago, IL 60606

**Contact:**

|  |  |  |
| --- | --- | --- |
| Ed Balbis  Partner  561.644.9407  [**ebalbis@guidehouse.com**](mailto:ebalbis@guidehouse.com)  Charles Ampong Associate Director  608.446.3172  [**charles.ampong@guidehouse.com**](mailto:charles.ampong@guidehouse.com) | Stu Slote  Director  802.526.5113  [**stu.slote@guidehouse.com**](mailto:stu.slote@guidehouse.com) | Laura Agapay-Read  Associate Director  312.583.4178  **laura.agapay.read@guidehouse.com** |

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Table of Contents

[1. Introduction 2](#_Toc163032660)

[2. Program Description 2](#_Toc163032661)

[3. Program Savings Detail 5](#_Toc163032662)

[4. Program Savings by Measure 6](#_Toc163032663)

[5. Impact Analysis Findings and Recommendations 8](#_Toc163032664)

[5.1 Impact Parameter Estimates 8](#_Toc163032665)

[5.2 Findings and Recommendations 9](#_Toc163032666)

[Appendix A. Impact Analysis Methodology A-1](#_Toc163032667)

[Appendix B. Program Specific Inputs for the Illinois TRC B-1](#_Toc163032668)

List of Tables, Figures, and Equations

[Table 2‑1. 2023 Volumetric Summary for PGL 2](#_Toc163032672)

[Table 2‑2. 2023 Installed Measure Quantities for PGL 3](#_Toc163032673)

[Table 2‑3. 2023 Volumetric Summary for NSG 3](#_Toc163032674)

[Table 2‑4. 2023 Installed Measure Quantities for NSG 4](#_Toc163032675)

[Table 3‑1. 2023 Annual Energy Savings Summary for PGL 5](#_Toc163032676)

[Table 3‑2. 2023 Annual Energy Savings Summary for NSG 5](#_Toc163032677)

[Table 4‑1. 2023 Annual Energy Savings by Measure for PGL 6](#_Toc163032678)

[Table 4‑2. 2023 Annual Energy Savings by Measure for NSG 7](#_Toc163032679)

[Table 5‑1. 2023 Verified Gross Savings Parameters 8](#_Toc163032680)

[Table B‑1: 2023 Verified Cost Effectiveness Inputs – PGL B-1](#_Toc163032681)

[Table B‑2. 2023 Verified Cost Effectiveness Inputs – NSG B-2](#_Toc163032682)

# Introduction

This report presents the results of the impact evaluation of the Peoples Gas (PGL) and North Shore Gas (NSG) 2023 Commercial and Industrial (C&I) and Public Sector Prescriptive programs. It presents a summary of the energy impacts for the total program and broken out by relevant measure and program structure details. The appendix presents the impact analysis methodology. Program year 2023 covers January 1, 2023 through December 31, 2023.

# Program Description

The PGL and NSG comprehensive business programs combine offerings into program paths and allow eligible C&I and Public Sector customers access to any of the paths[[1]](#footnote-1) based on the needs of each customer. This report covers evaluation activities for measures installed and natural gas savings realized through the Prescriptive Rebate path, referred to as the Prescriptive program in this report. The program provides standardized incentives to cover part of the measure costs for existing commercial, industrial, and public sector buildings. The incentives focus on energy efficient measures such as heating systems, water heating systems, pipe and storage tank insulation, steam traps, and food service equipment.

The PGL program had 34 participants (29 C&I and 5 public sector participants) in 2023 and completed 160 projects (38 C&I and 122 public sector projects) as shown in Table 2‑1.

Table 2‑1. 2023 Volumetric Summary for PGL

|  |  |
| --- | --- |
| **Participation** | **Count** |
| **C&I Sector** |  |
| Participants \* | 29 |
| Installed Projects † | 38 |
| Measure Types Installed ‡ | 14 |
| **Public Sector** |  |
| Participants \* | 5 |
| Installed Projects † | 122 |
| Measure Types Installed ‡ | 5 |
| **Program Total** |  |
| Participants \* | 34 |
| Installed Projects † | 160 |
| Measure Types Installed ‡ | 17 |

\* Participants are defined as the distinct count of Account Name.

† Installed Projects are defined as the distinct count of Work Order IDs with non-zero therms savings.

‡ Measure Types Installed are defined as the distinct count of reporting measure names with non-zero therms savings.

Source: Peoples 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 for PGL

|  |  |  |  |
| --- | --- | --- | --- |
| **Program Category** | **Measure** | **Quantity Unit** | **Installed Quantity** |
| C&I | Boiler Chemical Descaling | MBH | 75,000 |
| Boiler Tune Up - Process | MBH | 172,928 |
| Boiler Tune Up - Space Heating | MBH | 11,800 |
| Draft Controls | MBH | 45,186 |
| Linkageless Boiler Controls for Space Heating | MBH | 45,186 |
| Prescriptive Change Steam Trap\* | Projects | 13 |
| Steam Traps - HVAC Repair/Rep | Each | 735 |
| Steam Traps - Industrial Rep | Projects | 62 |
| Storage Water Heater (Large) | MBH | 199 |
| Public | Boiler Tune Up - Space Heating | MBH | 604,821 |
| Linkageless Boiler Controls for Space Heating | MBH | 12,556 |
| Pipe Insulation | Ln Ft. | 599 |
| Steam Traps - HVAC Repair/Rep | Each | 977 |
| Wireless Pneumatic Thermostat | Sq Ft | 219,511 |

\* Prescriptive Change projects have savings capped at 20 percent of gas usage.

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

The NSG program had 14 participants (8 C&I and 6 public sector participants) in 2023 and completed 21 projects (11 C&I and 10 public sector projects) as shown in Table 2-3.

Table 2‑3. 2023 Volumetric Summary for NSG

| **Participation** | **Count** |
| --- | --- |
| **C&I Sector** |  |
| Participants \* | 8 |
| Installed Projects † | 11 |
| Measure Types Installed ‡ | 11 |
| **Public Sector** |  |
| Participants \* | 6 |
| Installed Projects † | 10 |
| Measure Types Installed ‡ | 12 |
| **Program Total** |  |
| Participants \* | 14 |
| Installed Projects † | 21 |
| Measure Types Installed ‡ | 22 |

\* Participants are defined as the distinct count of Account Name.

† Installed Projects are defined as the distinct count of Project IDs with non-zero therms savings.

‡ Measure Types Installed are defined as the distinct count of reporting measure names with non-zero therms savings

Source: North Shore Gas tracking data and Guidehouse evaluation team analysis.

Table 2‑4 summarizes the installed measure quantities that are the basis for verified energy savings.

Table 2‑4. 2023 Installed Measure Quantities for NSG

|  |  |  |  |
| --- | --- | --- | --- |
| **Program Category** | **Measure** | **Quantity Unit** | **Installed Quantity** |
| C&I | Boiler Tune Up - Process | MBH | 56,455 |
| Prescriptive Change Steam Trap | Projects | 2 |
| Process Stack Economizer - Conventional - Steam Boiler | MBH | 62,766 |
| Steam Traps - HVAC Repair/Rep | Each | 226 |
| Steam Traps - Industrial Rep | Projects | 17 |
| Storage Water Heater | Each | 3,200 |
| Public | Boiler Tune Up - Process | MBH | 234,291 |
| Boiler Tune Up - Space Heating | MBH | 13,600 |
| DCV - Kitchen | HP | 6 |
| Double Rack Oven | Each | 1 |
| Draft Controls | MBH | 3,000 |
| Energy Star Dishwasher | Each | 2 |
| Energy Star Fryer | Each | 1 |
| Faucet Aerator - Healthcare | Each | 5 |
| High Efficiency Boiler | MBH | 8,000 |
| High Efficiency Pre-Rinse Spray Valve | Each | 2 |
| Linkageless Boiler Controls for Space Heating | MBH | 4,800 |
| Pipe Insulation | Ln Ft. | 855 |

Source: North Shore Gas tracking data and Guidehouse evaluation team analysis.

# Program Savings Detail

Table 3‑1 summarizes the energy savings the PGL Prescriptive Program achieved by path in 2023. Projects in disadvantaged communities (DAC) designated sites have a verified net-to-gross ratio (NTG) of 1.00.

Table 3‑1. 2023 Annual Energy Savings Summary for PGL

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Program Category** | **Program Path** | **Ex Ante Gross Savings (Therms)** | **Verified Gross RR\*** | **Verified Gross Savings (Therms)** | **NTG†** | **Verified Net Savings (Therms)** |
| Non-Disadvantaged Communities | C&I | 2,139,856 | 100% | 2,139,611 | 0.91 | 1,947,046 |
| Public | 981,643 | 100% | 980,842 | Thermostats = 0.93 All Other = 0.92 | 902,591 |
| Disadvantaged Communities | Public | 107,472 | 100% | 107,133 | 1.00 | 107,133 |
| **Total or Weighted Average** |  | **3,228,971** | **100%** | **3,227,586** |  | **2,956,771** |

\* 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 sides have a NTG of 1.0.

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

Table 3‑2 summarizes the energy savings the NSG Prescriptive Program achieved by path in 2023. Projects in DAC designated sites have a verified NTG of 1.00.

Table 3‑2. 2023 Annual Energy Savings Summary for NSG

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Program Category** | **Program Path** | **Ex Ante Gross Savings (Therms)** | **Verified Gross RR\*** | **Verified Gross Savings (Therms)** | **NTG†** | **Verified Net Savings (Therms)** |
| Non-Disadvantaged Communities | C&I | 637,013 | 100% | 637,013 | 0.91 | 579,682 |
| Public | 270,370 | 100% | 270,176 | Thermostats = 0.93 All Other = 0.92 | 248,562 |
| Disadvantaged Communities | C&I | 7,752 | 100% | 7,752 | 1.00 | 7,752 |
| **Total or Weighted Average** |  | **915,136** | **100%** | **914,942** |  | **835,996** |

\* 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 sides have a NTG of 1.0.

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

# Program Savings by Measure

The PGL program includes 11 unique research categories across the C&I and public sector program paths in both DAC and non-DAC designated sites, as shown in Table 4‑1. The Steam Trap and Boiler Tune Up measures contributed the most savings.

Table 4‑1. 2023 Annual Energy Savings by Measure for PGL

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Program Category** | **Program Path** | **Savings Category** | **Ex Ante Gross Savings (Therms)** | **Verified Gross RR\*** | **Verified Gross Savings (Therms)** | **NTG†** | **Verified Net Savings (Therms)** |
| Non-Disadvantaged Communities | C&I | Boiler Chemical Descaling | 42,734 | 100% | 42,734 | 0.91 | 38,888 |
| Boiler Tune Up - Process | 176,860 | 100% | 176,860 | 0.91 | 160,942 |
| Boiler Tune Up - Space Heating | 4,908 | 95% | 4,662 | 0.91 | 4,243 |
| Draft Controls | 6,602 | 100% | 6,602 | 0.91 | 6,008 |
| Linkageless Boiler Controls for Space Heating | 25,086 | 100% | 25,086 | 0.91 | 22,829 |
| Prescriptive Change Steam Trap | 144,065 | 100% | 144,065 | 0.91 | 131,099 |
| Steam Traps - HVAC Repair/Rep | 573,286 | 100% | 573,286 | 0.91 | 521,691 |
| Steam Traps - Industrial Rep | 1,166,209 | 100% | 1,166,209 | 0.91 | 1,061,250 |
| Storage Water Heater (Large) | 107 | 100% | 107 | 0.91 | 97 |
| *C&I Subtotal* | | *2,139,856* | *100%* | *2,139,611* | *0.91* | *1,947,046* |
| Public | Boiler Tune Up - Space Heating | 254,965 | 100% | 254,163 | 0.92 | 233,830 |
| Linkageless Boiler Controls for Space Heating | 8,250 | 100% | 8,250 | 0.92 | 7,590 |
| Pipe Insulation | 2,563 | 100% | 2,563 | 0.92 | 2,358 |
| Steam Traps - HVAC Repair/Rep | 694,184 | 100% | 694,184 | 0.92 | 638,649 |
| Wireless Pneumatic Thermostat | 21,683 | 100% | 21,683 | 0.93 | 20,165 |
| *Public Subtotal or Weighted Average* | | *981,643* | *100%* | *980,842* | *0.92* | *902,591* |
| ***Non-DAC Subtotal or Weighted Average*** | | | ***3,121,499*** | ***100%*** | ***3,120,453*** |  | ***2,849,637*** |
| Disadvantaged Communities | Public | Boiler Tune Up - Space Heating | 39,614 | 99% | 39,275 | 1.00 | 39,275 |
| Steam Traps - HVAC Repair/Rep | 67,858 | 100% | 67,858 | 1.00 | 67,858 |
| ***DAC Subtotal*** | |  | ***107,472*** | ***100%*** | ***107,133*** | ***1.00*** | ***107,133*** |
|  |  | **Total or Weighted Average** | **3,228,971** | **100%** | **3,227,586** |  | **2,956,771** |

\* 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 sides have a NTG of 1.0.

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

The NSG program includes 17 unique research categories across the C&I and public sector program paths in both DAC and non-DAC designated sites, as shown in Table 4‑2. The Steam Trap and Boiler Tune Up measures contributed the most savings.

Table 4‑2. 2023 Annual Energy Savings by Measure for NSG

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Program Category** | **Program Path** | **Savings Category** | **Ex Ante Gross Savings (Therms)** | **Verified Gross RR\*** | **Verified Gross Savings (Therms)** | **NTG†** | **Verified Net Savings (Therms)** |
| Non-Disadvantaged Communities | C&I | Boiler Tune Up - Process | 57,739 | 100% | 57,739 | 0.91 | 52,542 |
|  | Prescriptive Change Steam Trap | 105,313 | 100% | 105,313 | 0.91 | 95,835 |
|  | Process Stack Economizer - Conventional - Steam Boiler | 66,395 | 100% | 66,395 | 0.91 | 60,419 |
|  | Steam Traps - HVAC Repair/Rep | 176,276 | 100% | 176,276 | 0.91 | 160,411 |
|  | Steam Traps - Industrial Rep | 231,291 | 100% | 231,291 | 0.91 | 210,475 |
| *C&I Subtotal* | | *637,013* | *100%* | *637,013* | *0.91* | *579,682* |
| Public | Boiler Tune Up - Process | 239,618 | 100% | 239,618 | 0.92 | 220,448 |
|  | Boiler Tune Up - Space Heating | 6,636 | 100% | 6,636 | 0.92 | 6,105 |
|  | DCV - Kitchen | 4,644 | 100% | 4,644 | 0.92 | 4,272 |
|  | Double Rack Oven | 1,931 | 100% | 1,931 | 0.92 | 1,776 |
|  | Draft Controls | 519 | 100% | 519 | 0.92 | 477 |
|  | Energy Star Dishwasher | 533 | 64% | 339 | 0.92 | 312 |
|  | Energy Star Fryer | 513 | 100% | 512 | 0.92 | 471 |
|  | Faucet Aerator - Healthcare | 328 | 100% | 328 | 0.92 | 301 |
|  | High Efficiency Boiler | 10,121 | 100% | 10,121 | 0.92 | 9,311 |
|  | High Efficiency Pre-Rinse Spray Valve | 102 | 100% | 102 | 0.92 | 94 |
|  | Linkageless Boiler Controls for Space Heating | 3,154 | 100% | 3,154 | 0.92 | 2,901 |
|  | Pipe Insulation | 2,273 | 100% | 2,273 | 0.92 | 2,091 |
| *Public Subtotal or Weighted Average* | | *270,370* | *100%* | *270,176* | *0.92* | *248,562* |
| ***Non-DAC Subtotal or Weighted Average*** | | | ***907,383*** | ***100%*** | ***907,189*** |  | ***828,244*** |
| Disadvantaged Communities |  | Storage Water Heater | 7,752 | 100% | 7,752 | 1.00 | 7,752 |
|  |  | **Total or Weighted Average** | **915,136** | **100%** | **914,942** |  | **835,996** |

\* 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 sides have a NTG of 1.0.

*Source: North Shore Gas tracking data and Guidehouse 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 our 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 above or below 100 percent. 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)** |
| --- | --- | --- | --- | --- | --- |
| Boiler Chemical Descaling | MBH | Varies | Varies | 100% | IL TRM v11.0†, Section 4.4.49 |
| Boiler Tune Up - Process | MBH | Varies | Varies | 100% | IL TRM v11.0, Section 4.4.3 |
| Boiler Tune Up - Space Heating | MBH | Varies | Varies | 100% | IL TRM v11.0, Section 4.4.2 |
| DCV - Kitchen | HP | 774 | 774 | 100% | IL TRM v11.0, Section 4.2.16 |
| Double Rack Oven | Each | 1930.5 | 1930.5 | 100% | IL TRM v11.0, Section 4.2.18 |
| Draft Controls | MBH | Varies | Varies | 100% | IL TRM v11.0, Section 4.4.23 |
| Energy Star Dishwasher | Each | Varies | Varies | 64% | IL TRM v11.0, Section 4.2.6 |
| Energy Star Fryer | Each | 512.5 | 512.5 | 100% | IL TRM v11.0, Section 4.2.7 |
| Faucet Aerator - Healthcare | Each | Varies | Varies | 100% | IL TRM v11.0, Section 4.3.2 |
| High Efficiency Boiler | MBH | Varies | Varies | 100% | IL TRM v11.0, Section 4.4.10 |
| High Efficiency Pre-Rinse Spray Valve | Each | Varies | Varies | 100% | IL TRM v11.0, Section 4.2.11 |
| Linkageless Boiler Controls for Space Heating | MBH | Varies | Varies | 100% | IL TRM v11.0, Section 4.4.21 |
| Pipe Insulation | Ln Ft. | Varies | Varies | 100% | IL TRM v11.0, Section 4.4.14 |
| Prescriptive Change Steam Trap | Projects | Custom Calculation | Custom Calculation | 100% | Tracking Data\* |
| Process Stack Economizer - Conventional - Steam Boiler | MBH | Varies | Varies | 100% | IL TRM v11.0, Section 4.4.29 |
| Steam Traps - HVAC Repair/Rep | Each | Varies | Varies | 100% | IL TRM v11.0, Section 4.4.16 |
| Steam Traps - Industrial Rep | Projects | Varies | Varies | 100% | IL TRM v11.0, Section 4.4.16 |
| Storage Water Heater‡ | Each | Varies | Varies | 100% | IL TRM v11.0, Section 4.3.1 |
| Wireless Pneumatic Thermostat | Sq Ft | Varies | Varies | 100% | 2023 MMDB - C&I and SB§ |

\* Program Tracking Data (PTD) provided by Peoples Gas and North Shore Gas; PGL and NSG extract dated February 2, 2024.

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

‡ Storage Water Heater in this table represents the Storage Water Heater (Large) measure from PGL program and Storage Water Heater measure from NSG program.

§ CY2023 C&I and Small Business Master Measure Database calculator.

## Findings and Recommendations

The following are findings and recommendations from the evaluation team, all findings are minor.

**Finding 1.** Ex ante net savings provided in the tracking data for some measures do not match the expected values provided in the MMDB file for all Energy Star Dishwasher measures, all Boiler Tune Up – Space Heating measures with a blank business type in the tracking data, and the Boiler Tune Up – Space Heating measures under WO-4296990 and WO-429738. Verified savings align with the values in the MMDB calculator.

**Recommendation 1.** Ensure ex ante net savings in the tracking data aligns with the savings and calculations provided in the MMDB and the respective deemed NTG value.

**Finding 2.** The Boiler Tune Up – Space Heating measures with a hospital business type in the tracking data use an Equivalent Full Load Hours (EFLH) value of 1,511 hours according to the MMDB, but the source of this value is not clear. The evaluation team uses an average EFLH value of 1,221.5 from the TRM for all Hospital-related building types for verified savings.

**Recommendation 2.** Clarify the source of the MMDB EFLH value of 1,511 hours or update the ex ante calculations to use an average Hospital value as do verified savings.

**Finding 3.** The evaluation team applied a NTG value of 1.00 to calculate the verified net therms values for all measures in DAC eligible designated sites. The ex ante net savings values provided in the program tracking data for the DAC measures (Boiler Tune Up – Space Heating and Steam Traps – HVAC Repair/Rep for the public sector path and Storage Water Heater for the C&I path) do not reflect a NTG value of 1.00, the evaluation team replicated ex ante gross savings using the applicable non-DAC program value. This does not affect the realization rates of these measures.

**Recommendation 3.** Ensure all DAC measures’ ex ante net savings in the tracking data reflect a NTG value of 1.00.

**Finding 4.** The evaluation team matched incentive amounts provided in the tracking data to incentive amounts in the MMDB to identify key measure information that was missing from the tracking data. This effort included Dishwasher Type for the Energy Star Dishwasher measure and Size for the Pipe Insulation measure, which did not affect the realization rates of these measures.

**Recommendation 4.** Ensure all information needed to calculate a measure’s savings is provided to the evaluation team in the tracking data. Since the evaluation team relied on tracking data incentive amounts, ensure that these values were entered correctly.

**Finding 5.** The evaluation team utilized a provided supplemental file to determine if a given project in the tracking data was in a DAC or non-DAC designated site. The evaluation team found that WO-4746774 is present in this supplemental file but cannot be found in the tracking data. It was not included in the analysis. The evaluation team also observed the Boiler Tune Up – Space Heating measure in WO-4297357 with a quantity of 2,000 MBH had a net therms savings value of 897.81, rounded, in the tracking data but 871.33, rounded, in the supplemental file. The former value from the tracking data was used in the analysis.

**Recommendation 5.** Ensure supplemental information aligns with reported tracking data provided to the evaluation team for analysis.

##### Impact Analysis Methodology

Guidehouse determined verified gross savings for each program measure by:

1. Using the NTG values defined on the Illinois SAG website to extract ex ante gross savings from the net reported values in the tracking data. All verified savings of measures in a DAC designated site received a NTG value of 1.00 regardless of the program path.
2. Reviewing the savings algorithm inputs in the MMDB for agreement with the IL TRM v11.0 or evaluation research for non-deemed measures or custom inputs.
3. Validating that the savings algorithm was applied correctly.
4. Cross-checking per-unit savings values in the tracking data with the verified values in the MMDB, or in Guidehouse’s calculations if the MMDB did not agree with the IL TRM v11.0.
5. Multiplying the verified per-unit savings value by the quantity reported in the program tracking data to substantiate the type and quantity of measures installed.

Verified gross realization rates are calculated by dividing the verified gross savings by the ex ante gross savings. We calculated verified net energy savings by multiplying the verified gross savings estimates by a deemed net-to-gross ratio (NTG). The 2023 NTG were based on past evaluation research and defined by a consensus process through SAG.[[2]](#footnote-2) Economically-disadvantaged areas (DAC) were identified by census track and evaluation used NTG of 1.00 for DAC projects’ verified savings, based on Illinois Policy Manual 3.0.[[3]](#footnote-3)

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

Table B‑1 and Table B‑2 show the Total Resource Cost (TRC) cost-effectiveness analysis inputs available at the time of producing this impact evaluation report. Currently, additional required cost data (e.g., measure costs, program level incentive and non-incentive costs) are not included in Table B‑1 and Table B‑2 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 B‑1: 2023 Verified Cost Effectiveness Inputs – PGL

| **Program Category** | **Program Path** | **Savings Category** | **Units** | | **Quantity** | **EUL** | **Ex Ante Gross Savings (Therms)** | **Verified Gross Savings (Therms)** | **Verified Net Savings (Therms)** | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Non-Disadvantaged Communities | C&I | Boiler Chemical Descaling | MBH | 75,000 | | 6.0 | 42,734 | 42,734 | | 38,888 |
| Boiler Tune Up - Process | MBH | 172,928 | | 2.0 | 176,860 | 176,860 | | 160,942 |
| Boiler Tune Up - Space Heating | MBH | 11,800 | | 3.0 | 4,908 | 4,662 | | 4,243 |
| Draft Controls | MBH | 45,186 | | 15.0 | 6,602 | 6,602 | | 6,008 |
| Linkageless Boiler Controls for Space Heating | MBH | 45,186 | | 20.0 | 25,086 | 25,086 | | 22,829 |
| Prescriptive Change Steam Trap | Projects | 2,478 | | 6.0 | 144,065 | 144,065 | | 131,099 |
| Steam Traps - HVAC Repair/Rep | Each | 735 | | 6.0 | 573,286 | 573,286 | | 521,691 |
| Steam Traps - Industrial Rep | Projects | 342 | | 6.0 | 1,166,209 | 1,166,209 | | 1,061,250 |
| Storage Water Heater (Large) | MBH | 199 | | 15.0 | 107 | 107 | | 97 |
| Public | Boiler Tune Up - Space Heating | MBH | 523,635 | | 3.0 | 254,965 | 254,163 | | 233,830 |
| Linkageless Boiler Controls for Space Heating | MBH | 12,556 | | 20.0 | 8,250 | 8,250 | | 7,590 |
| Pipe Insulation | Ln Ft. | 599 | | 15.0 | 2,563 | 2,563 | | 2,358 |
| Steam Traps - HVAC Repair/Rep | Each | 890 | | 6.0 | 694,184 | 694,184 | | 638,649 |
| Wireless Pneumatic Thermostat | Sq Ft | 219,511 | | 10.0 | 21,683 | 21,683 | | 20,165 |
| Disadvantaged Communities | Public | Boiler Tune Up - Space Heating | MBH | 81,186 | | 3.0 | 39,614 | 39,275 | | 39,275 |
| Steam Traps - HVAC Repair/Rep | Each | 87 | | 6.0 | 67,858 | 67,858 | | 67,858 |
| **Total** |  |  |  | **1,192,318** | | **5.7** | **3,228,971** | **3,227,586** | | **2,956,771** |

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

Table B‑2. 2023 Verified Cost Effectiveness Inputs – NSG

| **Program**  **Category** | **Program Path** | | **Savings Category** | **Units** | **Quantity** | **EUL** | **Ex Ante Gross Savings (Therms)** | **Verified Gross Savings (Therms)** | **Verified Net Savings (Therms)** | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Non-Disadvantaged Communities | C&I | Boiler Tune Up - Process | | MBH | 56,455 | 2.0 | 57,739 | 57,739 | | 52,542 |
| Prescriptive Change Steam Trap | | Projects | 2 | 6.0 | 105,313 | 105,313 | | 95,835 |
| Process Stack Economizer - Conventional - Steam Boiler | | MBH | 62,766 | 15.0 | 66,395 | 66,395 | | 60,419 |
| Steam Traps - HVAC Repair/Rep | | Each | 226 | 6.0 | 176,276 | 176,276 | | 160,411 |
| Steam Traps - Industrial Rep | | Projects | 73 | 6.0 | 231,291 | 231,291 | | 210,475 |
| Public | Boiler Tune Up - Process | | MBH | 234,291 | 2.0 | 239,618 | 239,618 | | 220,448 |
| Boiler Tune Up - Space Heating | | MBH | 13,600 | 3.0 | 6,636 | 6,636 | | 6,105 |
| DCV - Kitchen | | HP | 6 | 20.0 | 4,644 | 4,644 | | 4,272 |
| Double Rack Oven | | Each | 1 | 12.0 | 1,931 | 1,931 | | 1,776 |
| Draft Controls | | MBH | 3,000 | 15.0 | 519 | 519 | | 477 |
| Energy Star Dishwasher\* | | Each | 2 | 14.3 | 533 | 339 | | 312 |
| Energy Star Fryer | | Each | 1 | 12.0 | 513 | 512 | | 471 |
| Faucet Aerator - Healthcare | | Each | 5 | 10.0 | 328 | 328 | | 301 |
| High Efficiency Boiler | | MBH | 8,000 | 25.0 | 10,121 | 10,121 | | 9,311 |
| High Efficiency Pre-Rinse Spray Valve | | Each | 2 | 5.0 | 102 | 102 | | 94 |
| Linkageless Boiler Controls for Space Heating | | MBH | 4,800 | 10.0 | 3,154 | 3,154 | | 2,901 |
| Pipe Insulation | | Ln Ft. | 855 | 15.0 | 2,273 | 2,273 | | 2,091 |
| Disadvantaged Communities | C&I | Storage Water Heater | | Each | 3,200 | 15.0 | 7,752 | 7,752 | | 7,752 |
| **Total** |  |  | |  | **387,285** | **5.8** | **915,136** | **914,942** | | **835,996** |

\* Effective Useful Life (EUL) values differ based on Dishwasher Type. This value represents a weighted average.

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

1. The comprehensive non-residential sector program paths include – Energy Jumpstart (direct installation of free energy saving products), Engineering Studies and staffing assistance, Prescriptive Rebates, Custom Rebates, and Gas Optimization. Only measures that received prescriptive rebates were implemented in 2023. The custom and gas optimization projects are evaluated and reported separately. [↑](#footnote-ref-1)
2. A deemed value. Available on the SAG website: https://www.ilsag.info/evaluator-ntg-recommendations-for-2022/ [↑](#footnote-ref-2)
3. https://www.ilsag.info/wp-content/uploads/IL\_EE\_Policy\_Manual\_Version\_3.0\_Final\_11-3-2023.pdf [↑](#footnote-ref-3)