Guidehouse

Business & Public Sector Custom Program Impact Evaluation Report

Energy Efficiency Plan: Program Year 2025

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

Prepared for:

Peoples Gas and North Shore Gas

PEOPLES GAS® | NORTH SHORE GAS®

Final

May 15, 2026

Prepared by:

Eric Ogbe
Guidehouse

Roger Hill
InCA

Deborah Swarts
InCA

Submitted to:
Peoples Gas
North Shore Gas
200 East Randolph Street
Chicago, IL 60601

Submitted by:
Guidehouse Inc.
167 N. Green Street
12th Floor
Chicago, IL 60607

Contact:

Charles Maglione, Partner
202.481.7352
cmaglione@guidehouse.com

Jeff Erickson, Director
608.616.4962
jeff.erickson@guidehouse.com

Laura Agapay-Read, Associate Director
312.583.4178
laura.agapay.read@guidehouse.com

Charles Ampong, Associate Director
608.616.4922
charles.ampong@guidehouse.com

This report was prepared by Guidehouse for People Gas Light and Coke Company (PGL)and North Shore Gas(NSG) companies. The work presented in this report represents Guidehouse's professional judgment based on the information available at the time this report was prepared. Use of this report by any other party for whatever purpose should not, and does not, absolve such party from using due diligence in verifying the report's contents. Neither Guidehouse nor any of its subsidiaries or affiliates assumes any liability or duty of care to such parties and hereby disclaims any such liability.

Table of Contents

Table of Tables, Figures, and Equations

1 Introduction

This report presents the results of the impact evaluation of the Peoples Gas (PGL) and North Shore Gas (NSG) 2025 Business and Public Sector Custom program. 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 and inputs for cost effectiveness analysis. Program year 2025 covers January 1 to December 31, 2025.

2 Program Description

The Custom program provides PGL and NSG private sector commercial and industrial (C&I) and public sector (PS) customers with rebates on a custom basis; these are applications for measures not covered under the Prescriptive Rebate path. Typical market sectors for this program include larger customers in light and heavy manufacturing, hospitals, hotels, public sector facilities, and other process heating intensive businesses.

Custom rebates are on a dollar per therm basis, subject to payback and project cost limitations. PGL and NSG may revise eligible measures and incentives as driven by current market conditions, changes to codes and standards, technology, evaluation results, and program management knowledge.

The PGL Custom program had 10 participants in 2025 and completed 17 projects, as shown in Table 1.

Table 1. 2025 Volumetric Summary for PGL

Participation	Private	Public	Total
Participants *	8	2	10
Installed Projects †	10	7	17
Measure Types Installed ‡	5	3	6

** Participants are defined as unique work order IDs*
† Installed Projects are defined as unique retrofit for each participant
‡ Total Measure Types Installed is less than the sum of private and public due to the same Measure Types in different building sectors.
Source: Peoples Gas tracking data and evaluation team analysis.

The NSG Custom program had 6 participants in 2025 and completed 7 projects, as shown in Table 2.

Table 2. 2025 Volumetric Summary for NSG

Participation	Private	Public	Total
Participants *	5	1	6
Installed Projects †	6	1	7
Measure Types Installed ‡	3	1	3

** Participants are defined as unique work order IDs*
† Installed Projects are defined as unique retrofit for each participant
‡ Total Measure Types Installed is less than the sum of private and public due to the same Measure Types in different building sectors.
Source: North Shore Gas tracking data and Guidehouse evaluation team analysis.

3 Program Savings Detail

Table 3 summarizes the energy savings the PGL Business and Public Sector Custom Program achieved in 2025, indicating which portion of the savings were realized from disadvantaged communities (DAC).

Table 3. 2025 Annual Energy Savings Summary for PGL

Program Category	Ex Ante Gross Savings (Therms)	Verified Gross RR*	Verified Gross Savings (Therms)	NTG†	Verified Net Savings (Therms)
Private, Non-DAC	129,920	109%	141,027	0.93	131,155
Public, Non-DAC	13,594	110%	15,004	0.92	13,804
Public, DAC	30,108	110%	33,200	1.00	33,200
Total	**173,622**	**109%**	**189,231**		**178,159**

** Realization Rate (RR) is the ratio of verified gross savings to ex ante gross savings, based on evaluation research findings.*
† NTG (Net to Gross) is the deemed value available on the SAG website: https://www.ilsag.info/evaluator-ntg-recommendations-for-2025/.
Source: Evaluation team analysis.

Table 4 summarizes the energy savings the NSG Business and Public Sector Custom Program achieved in 2025.

Table 4. 2025 Annual Energy Savings Summary for NSG

Program Category	Ex Ante Gross Savings (Therms)	Verified Gross RR*	Verified Gross Savings (Therms)	NTG†	Verified Net Savings (Therms)
Private, Non-DAC	260,370	103%	268,885	0.93	250,063
Public, Non-DAC	6,358	111%	7,030	0.92	6,468
Total	**266,728**	**103%**	**275,915**		**256,531**

** Realization Rate (RR) is the ratio of verified gross savings to ex ante gross savings, based on evaluation research findings.*
† NTG (Net to Gross) is the deemed value available on the SAG website: https://www.ilsag.info/evaluator-ntg-recommendations-for-2025/.
Source: Evaluation team analysis.

4 Program Savings by Measure

Table 5 and Table 6 present the custom measures processed through the Business and Public Sector Custom program in PY2025. The realization rate (RR) is the ratio of verified gross savings to ex ante gross savings, based on evaluation research findings for a sample of the Business and Public Sector Custom program projects. Realization rate findings for individual sampled projects are provided in the Appendix.

Table 5. 2025 Annual Energy Savings by Measure for PGL

Program Category	Savings Category	Ex Ante Gross Savings (Therms)	Verified Gross RR*	Verified Gross Savings (Therms)	NTG†	Verified Net Savings (Therms)
Private, Non-DAC	Boiler Condensate Recovery	43,593	105%	45,873	0.93	42,661
	Burner Replacement	25,318	111%	27,996	0.93	26,036
	Insulation	51,934	110%	57,238	0.93	53,231
	Space Conditioning Controls	6,755	111%	7,469	0.93	6,946
	Other	2,321	106%	2,452	0.93	2,280
Private, Non-DAC Subtotal		***129,920***	***109%***	***141,027***	***0.93***	***131,155***
Public, Non-DAC	Space Conditioning Controls	13,594	110%	15,004	0.92	13,804
Public, Non-DAC Subtotal		***13,594***	***110%***	***15,004***	***0.92***	***13,804***
Public - DAC	High Speed Door	21,445	111%	23,713	1.00	23,713
	Space Conditioning Controls	6,806	111%	7,525	1.00	7,525
	Insulation	1,857	106%	1,962	1.00	1,962
Public, DAC Subtotal		***30,108***	***110%***	***33,200***	***1.00***	***33,200***
Total		**173,622**	**109%**	**189,231**	**0.94**	**178,159**

** Realization Rate (RR) is the ratio of verified gross savings to ex ante gross savings, based on evaluation research findings.*
† NTG (Net to Gross) is the deemed value available on the SAG website: https://www.ilsag.info/evaluator-ntg-recommendations-for-2025/.
Source: Evaluation team analysis.

Table 6. 2025 Annual Energy Savings by Measure for NSG

Program Category	Savings Category	Ex Ante Gross Savings (Therms)	Verified Gross RR*	Verified Gross Savings (Therms)	NTG†	Verified Net Savings (Therms)
Private, Non-DAC	Steam Chest Leak Replacement	106,193	100%	106,016	0.93	98,595
	Waste Heat Recovery	73,016	105%	76,835	0.93	71,457
	Insulation	81,162	106%	86,034	0.93	80,012
Private, Non-DAC Subtotal		***260,370***	***103%***	***268,885***	***0.93***	***250,063***
Public, Non-DAC	Insulation	6,357	111%	7,030	0.92	6,467
Public, Non-DAC Subtotal		***6,357***	***111%***	***7,030***	***0.92***	***6,467***
Total		**266,728**	**103%**	**275,915**		**256,531**

** Realization Rate (RR) is the ratio of verified gross savings to ex ante gross savings, based on evaluation research findings.*
† NTG (Net to Gross) is the deemed value available on the SAG website: https://www.ilsag.info/evaluator-ntg-recommendations-for-2025/.
Source: Evaluation team analysis.

5 Impact Analysis Findings and Recommendations

5.1 Impact Parameter Estimates

Table 7 shows the realization rate and data source from our review. The realization rate is the ratio of the verified savings to the ex ante savings. Following the table, we provide findings and recommendations, including discussion of all measures with realization rates above or below 100%. Appendix A provides a description of the impact analysis methodology.

Table 7. Verified Gross Savings Parameters

Measure	Unit Basis	Ex Ante Gross (therms/unit)	Verified Gross (therms/unit)	Realization Rate	Data Source(s)
PGL Custom	Project	Varies	Varies	109%	Illinois Technical Reference Manual (IL-TRM) v13.0†, Project Files, Utility Data
NSG Custom	Project	Varies	Varies	103%	Illinois Technical Reference Manual (IL-TRM) v13.0†, Project Files, Utility Data

† State of Illinois Technical Reference Manual version 13.0 from http://www.ilsag.info/technical-reference-manual.html.
‡ Project files and monthly billing data provided by PGL NSG. Where conducted, on-site or telephone interview data collected by Guidehouse.

5.2 Findings and Recommendations

General findings and recommendations are presented below. The detailed realization rates and evaluation finding for individual sampled projects are provided in Appendix A.

Finding 1. For WO-5984069, a Waste Heat Recovery project, the evaluation team found that TMY3 weather data was used to estimate hours of operation instead of the required TMYx dataset in accordance with Illinois TRM guideline. Updating the analysis to use the TMYx dataset resulted in a Realization Rate (RR) of 144%.

Recommendation 1. Follow the Illinois TRM guidelines and use TMYx weather data for savings calculations.

Finding 2. For WO-4297269, a Boiler Condensate Recovery project, the evaluation team found that the ex ante savings in the tracking data were entered from a wrong database as the final ex ante savings. Ex ante estimate is the pre-approval estimate of 43,593 therms instead of the final approval of 39,513 therms.

Finding 3. For WO-5921741, a Space Conditioning Controls project, the evaluation team could not find how the tracking data ex ante savings were calculated in the project documentations. The evaluation team performed a regression model using additional billing data for the site, excluding summer months with minimal gas usage. The regression results for both baseline and ex post were normalized with TMYx 2007-2021 dataset. The analysis resulted in a RR of 188%.

Finding 4. For WO-6622742, a Process Insulation project, the evaluation team found that the boiler efficiency used was incorrect.

Recommendation 2. The evaluation team recommend strengthening data quality control procedures to ensure savings calculation inputs and final savings submissions are properly verified. This recommendation applies to findings 2, 3, and 4.

Appendix A. Impact Analysis Methodology

The evaluation sample design used a stratified random sample stratified by gross therm savings. The strata were chosen to include approximately one third of the savings in the top three strata. The fourth strata was for small projects less than 2% of the population ex ante savings and were not sampled and were assigned the population mean RR. Fifteen out of the population of 24 projects were selected for analysis based on this design. Table 8 shows a profile of the sample selection.

Table 8. Profile of Gross Impact Sample for Custom Projects

	Population Summary				Sample Summary		
Program	Sampling Strata	Number of Projects (N)	Ex Ante Gross Savings (Therms)	Percent of Ex Ante Gross	N	Ex Ante Gross Savings (Therms)	Sampled % of Population (% Therms)
PGL NSG Business and Public Sector Custom	1	1	106,193	24%	1	106,193	100%
	2	5	186,039	42%	5	186,039	100%
	3	12	139,552	32%	9	115,124	82%
	4	6	8,567	2%	0	0	0%
TOTAL		**24**	**440,350**	**100%**	**15**	**407,355**	**93%**

Source: Evaluation team analysis.

Engineering Review of Project Files

For each selected project, the evaluation did an in-depth application review to assess the engineering methods, parameters and assumptions used to generate all ex ante impact estimates. For each measure in the sampled project, evaluation engineers estimated ex post gross savings based on their review of documentation and engineering analysis.

To support this review, the evaluation reviewed project documentation in electronic format for each sampled project. Documentation included some or all scanned files of hardcopy application forms and supporting documentation from the applicant (invoices, measure specification sheets, and vendor proposals), pre-inspection reports and photos, post inspection reports and photos, and calculation spreadsheets.

Realization Rate Calculation and Roll-up

Evaluation calculated RR for each sampled project within a stratum. A weighted stratum-level RR was then developed for each sampled stratum. The resulting stratum-level RR was applied uniformly to all projects within that stratum during population roll-up, including sampled and unsampled projects. Table 9 shows the sample and all the roll up gross realization rates and the mean precision estimates at a 90% confidence level.

Table 9. Gross Realization Rates and Relative Precision at 90% Confidence Level

Program Sector	Sampling Strata	Relative Precision + or - %	Mean RR	Standard Error
PGL NSG Business Custom	1	0%	100%	0.00
	2	0%	105%	0.00
	3	6%	111%	0.04
	4	NA	106%	NA
Custom Total RR (90/10)		9%	106%	0.01

Source: Evaluation team analysis.

Table 10 provides a summary of the Business and Public Sector Custom Program sample selection and verification.

Table 10. Sample Gross Therms and Verification Approach

Project ID	Ex Ante Gross Savings (Therms)	Strata	Verification Approach	Measure
WO-5887462	106,193	1	File Review	Steam Chest Leak Replacement
WO-5984069	31,104	2	File Review	Waste Heat Recovery
WO-6149553	41,912	2	File Review	Waste Heat Recovery
WO-4297269	43,593	2	File Review	Boiler Condensate Recovery
WO-6014800	36,832	2	File Review	Insulation
WO-7999106	32,598	2	File Review	Insulation
WO-6622742	3,433	3	File Review	Insulation
WO-7200348	6,755	3	File Review	Space Conditioning Controls
WO-4297224	6,790	3	File Review	Space Conditioning Controls
WO-6781000	21,445	3	File Review	High Speed Door
WO-6232126	23,164	3	File Review	Insulation
WO-6961435	15,177	3	File Review	Insulation
WO-4911636	2,773	3	File Review	Space Conditioning Controls
WO-4514894	25,318	3	File Review	Burner Replacement

WO-5921741	10,269	3		File Review	Space Conditioning Controls

Source: Evaluation team analysis.

Table 11 provides a summary of verification results and adjustments for the PGL and NSG Business and Public Sector sampled Custom projects.

Table 11. Sample Gross Realization Rates and Summary of Adjustments

Project ID	Measure	Program	Verified Gross Savings (Therms)	Strata	Realization Rate	Comments
WO-5887462	Steam Chest Leak Replacement	NSG C&I Custom	106,016	1	100%	
WO-5984069	Waste Heat Recovery	NSG C&I Custom	44,914	2	144%	TMY3 dataset updated to TMYx
WO-6149553	Waste Heat Recovery	NSG C&I Custom	41,912	2	100%	
WO-4297269	Boiler Condensate Recovery	PG C&I Custom	39,513	2	91%	Wrong calculation tab used as final savings
WO-6014800	Insulation	NSG C&I Custom	36,832	2	100%	
WO-7999106	Insulation	NSG C&I Custom	32,598	2	100%	
WO-6622742	Insulation	PG C&I Custom	3,516	3	102%	Boiler efficiency discrepancy
WO-7200348	Space Conditioning Controls	PG C&I Custom	6,755	3	100%	
WO-4297224	Space Conditioning Controls	PG Public Custom	6,790	3	100%	
WO-6781000	High Speed Door	PG Public Custom	21,445	3	100%	
WO-6232126	Insulation	PG C&I Custom	23,164	3	100%	
WO-6961435	Insulation	PG C&I Custom	15,177	3	100%	
WO-4911636	Space Conditioning Controls	PG Public Custom	2,773	3	100%	
WO-4514894	Burner Replacement	PG C&I Custom	28,401	3	112%	Billing analysis
WO-5921741	Space Conditioning Controls	PG Public Custom	19,279	3	188%	Billing analysis and usage of TMYx dataset

Source: Evaluation team analysis.

Appendix B. Program Specific Inputs for the Illinois TRC

The Table 12 and Table 13 below show 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 this table 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 12. Verified Cost Effectiveness Inputs - PGL

Program Category	Program Path	Savings Category	Units	Quantity	Effective Useful Life	Early Replacement Flag†	Ex Ante Gross Savings (Therms)	Verified Gross Savings (Therms)	Verified Net Savings (Therms)
Private	Custom	Boiler Condensate Recovery	Project	1.00	15.00	NO	43,593	45,873	42,661
		Burner Replacement	Project	1.00	15.00	NO	25,318	27,996	26,036
		Insulation	Project	6.00	15.00	NO	51,934	57,238	53,231
		Space Conditioning Controls	Project	1.00	15.00	NO	6,755	7,469	6,946
		Other	Project	1.00	15.00	NO	2,321	2,452	2,280
Public	Custom	Space Conditioning Controls	Project	3.00	15.00	NO	13,594	15,004	13,804
		High Speed Door	Project	1.00	16.00	NO	21,445	23,713	23,713
		Space Conditioning Controls	Project	2.00	15.00	NO	6,806	7,525	7,525
		Insulation	Project	1.00	15.00	NO	1,857	1,962	1,962
Total or Weighted Average					**15.00**		**173,622**	**189,231**	**178,159**

Source: Evaluation team analysis.

Table 13. Verified Cost Effectiveness Inputs – NSG

Program Category	Program Path	Savings Category	Units	Quantity	Effective Useful Life	Early Replacement Flag†	Ex Ante Gross Savings (Therms)	Verified Gross Savings (Therms)	Verified Net Savings (Therms)
Private	Custom	Steam Chest Leak Replacement	Project	1.00	15.00	NO	106,193	106,016	98,595
		Waste Heat Recovery	Project	2.00	15.00	NO	73,016	76,835	71,457
		Insulation	Project	3.00	15.00	NO	81,162	86,034	80,012
Public	Custom	Insulation	Project	1.00	15.00	NO	6,357	7,030	6,467
Total or Weighted Average					**15.00**		**266,728**	**275,915**	**256,531**

Source: Evaluation team analysis.