



Home Energy Jumpstart Impact Evaluation Report

Energy Efficiency Plan: Program Year 2023
(1/1/2023-12/31/2023)

Prepared for:

Peoples Gas and North Shore Gas

FINAL

May 1, 2024

Prepared by:

Marisa Rudolph
Guidehouse

Robert Hodge
Guidehouse

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

Stu Slote
Director
802.526.5113
stu.slote@guidehouse.com

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

Charles Ampong
Associate Director
608.446.3172
charles.ampong@guidehouse.com

Disclaimer: This report was prepared by Guidehouse for Peoples Gas Light and Coke Company ("PGL") and North Shore Gas Company ("NSG") based upon information provided by PGL and NSG and from other sources. 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

1. Introduction	1
2. Program Description	1
3. Program Savings Detail	4
4. Program Savings by Measure	6
5. Impact Analysis Findings and Recommendations	10
5.1 Impact Parameter Estimates	10
5.2 Findings and Recommendations	11
Appendix A. Impact Analysis Methodology	A-1
Appendix B. Program Specific Inputs for the Illinois TRC	B-2

List of Tables, Figures, and Equations

Table 2-1. 2023 Volumetric Summary for PGL	1
Table 2-2. 2023 Installed Measure Quantities for PGL	2
Table 2-3. 2023 Volumetric Summary for NSG	2
Table 2-4. 2023 Installed Measure Quantities for NSG	3
Table 3-1. 2023 Annual Energy Savings Summary for PGL	4
Table 3-2. 2023 Annual Energy Savings Summary for NSG	5
Table 4-1. 2023 Annual Energy Savings by Measure for PGL	6
Table 4-2. 2023 Annual Energy Savings by Measure for NSG	8
Table 5-1. 2023 Verified Gross Savings Parameters	10
Table B-1. 2023 Verified Cost Effectiveness Inputs – PGL	B-4
Table B-2. 2023 Verified Cost Effectiveness Inputs – NSG	B-5

1. Introduction

This report presents the results of the impact evaluation of the Peoples Gas (PGL) and North Shore Gas (NSG) 2023 Home Energy Jumpstart (HEJ) program and presents a summary of the energy impacts for the total program, as well as relevant measure and program structure details. The appendix presents the impact analysis methodology. Program year 2023 covers January 1, 2023 through December 31, 2023.

2. Program Description

The 2023 HEJ program is an assessment and direct install program jointly implemented by ComEd, Nicor Gas, PGL, and NSG. This report focuses solely on the program’s natural gas savings. Electricity measure’s savings are included in a separate evaluation report delivered to ComEd.

The HEJ program seeks to secure energy savings through direct installation (DI) of low-cost efficiency measures, including water efficient showerheads and faucet aerators, pipe insulation, electricity-saving devices, and programmable thermostats at eligible single-family (SF) residences, including condominiums. The program also secures energy savings through installation of advanced (smart) thermostats, which requires a participant co-payment. In addition, the program performs an assessment of the major retrofit opportunities (e.g., furnace, boiler, air conditioning, insulation, and air sealing) and heightens homeowner awareness about other available efficiency programs offered by ComEd, PGL, and NSG. A Virtual Home Assessment (VHA) option was added in 2020 and continued through 2023 to adapt to COVID-19 restrictions. The program measures also include a door sweep and an air handler filter replacement.

The PGL program had 976 participants in 2023 and completed 1,984 projects as shown in Table 2-1.

Table 2-1. 2023 Volumetric Summary for PGL

Participation	Direct Install	Virtual Home Assessment	Total
Participants *	872	292	976
Installed Projects †	1,571	413	1,984

* Participants are defined as the number of distinct account numbers with realized gas savings.

† Installed Projects are defined as the number of distinct measure IDs with realized gas 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 Path	Measure	Quantity Unit	Installed Quantity
Direct Install	Advanced Thermostat (DI) – Blended	Each	1
	Advanced Thermostat (DI) – Manual	Each	94
	Advanced Thermostat (DI) – Programmable	Each	15
	Air Sealing – Door Sweep (DI)	Each	166
	Bathroom Aerator SF (DI)	Each	434
	Boiler Pipe Insulation	Linear Feet	424
	DHW Pipe Insulation	Linear Feet	1447
	Handheld Showerhead (DI) SF	Each	268
	Kitchen Aerator SF (DI)	Each	154
	Programmable Thermostat (DI)	Each	133
	Re-Program Thermostat (DI)	Each	26
	Shower Flow Reducer (DI) SF	Each	16
	Showerhead (DI) SF	Each	354
	Virtual Home Assessment	Air Handler Filter Replacement (VHA)	Each
Air Sealing – Door Sweep (VHA)		Each	58
Bathroom Aerator SF (VHA)		Each	82
Handheld Showerhead (VHA) SF		Each	56
Kitchen Aerator SF (VHA)		Each	8
Shower Flow Reducer (VHA) SF		Each	12
Showerhead (VHA) SF		Each	8

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

The NSG program had 269 participants in 2023 and completed 555 projects as shown in the following table.

Table 2-3. 2023 Volumetric Summary for NSG

Participation	Direct Install	Virtual Home Assessment	Total
Participants *	238	89	269
Installed Projects †	437	118	555

* Participants are defined as the number of distinct account numbers with realized gas savings.

† Installed Projects are defined as the number of distinct measure IDs with realized gas 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 Path	Measure	Quantity Unit	Installed Quantity
Direct Install	Advanced Thermostat (DI) - Manual	Each	28
	Advanced Thermostat (DI) - Programmable	Each	4
	Air Sealing - Door Sweep (DI)	Each	65
	Bathroom Aerator SF (DI)	Each	222
	Boiler Pipe Insulation	Linear Feet	250
	DHW Pipe Insulation	Linear Feet	540
	Handheld Showerhead (DI) SF	Each	82
	Kitchen Aerator SF (DI)	Each	19
	Programmable Thermostat (DI)	Each	19
	Re-Program Thermostat (DI)	Each	4
Virtual Home Assessment	Shower Flow Reducer (DI) SF	Each	7
	Showerhead (DI) SF	Each	93
	Air Handler Filter Replacement (VHA)	Each	92
	Air Sealing - Door Sweep (VHA)	Each	8
	Bathroom Aerator SF (VHA)	Each	26
	Handheld Showerhead (VHA) SF	Each	9
	Kitchen Aerator SF (VHA)	Each	3
	Shower Flow Reducer (VHA) SF	Each	6
Showerhead (VHA) SF	Each	8	

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

3. Program Savings Detail

Table 3-1 summarizes the energy savings the PGL Home Energy Report Program achieved by each program path in 2023. Projects in disadvantaged communities (DAC) designated sites have a NTG of 1.0.

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)
Disadvantaged Communities	Direct Install	16,401	100%	16,401	1.00**	16,447
	Virtual Home Assessment	1,334	100%	1,334	1.00**	1,336
DAC Subtotal		17,735	100%	17,735	1.00**	17,783
Non-Disadvantaged Communities	Direct Install	13,278	100%	13,278	Varies	11,954
	Virtual Home Assessment	1,721	100%	1,721	Varies	1,550
Non-DAC Subtotal		14,999	100%	14,999	0.95	13,504
Total or Weighted Average		32,734	100%	32,734		31,287

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

** NTG values for all Disadvantaged Community measures is 1.00. Water measures (Showerheads and Faucet Aerators) have a deemed NTG value of 1.02, which is what is applied for verified savings rather than the DAC 1.00 value.

† A deemed value. Available on the SAG web site: <https://www.ilsag.info/evaluator-ntg-recommendations-for-2023/>. Projects in disadvantaged communities designated sites 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 Home Energy Jumpstart Program achieved by each program path in 2023.

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)
Disadvantaged Communities	Direct Install	861	100%	861	1.00	863
	Virtual Home Assessment	40	100%	40	1.00	40
DAC Subtotal		901	100%	901	1.00	904
Non-Disadvantage Communities	Direct Install	6,392	100%	6,392	Varies	5,778
	Virtual Home Assessment	960	100%	960	Varies	860
Non-DAC Subtotal		7,353	100%	7,353		6,638
Total or Weighted Average		8,253	100%	8,253		7,541

Note: Totals may not sum due to rounding.

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

4. Program Savings by Measure

The PGL program includes 43 measures as shown in

Table 4-1, divided into installation type (DI or VHA) and DAC or non-DAC. The Advanced Thermostats and Programmable Thermostats 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)
Disadvantaged Communities	Direct Install	Advanced Thermostat (DI) - Blended	85	100%	85	1.00	85
		Advanced Thermostat (DI) - Manual	4,387	100%	4,387	1.00	4,387
		Advanced Thermostat (DI) - Programmable	285	100%	285	1.00	285
		Air Sealing - Door Sweep (DI)	701	100%	701	1.00	701
		Bathroom Aerator SF (DI)	225	100%	225	1.02	229
		Boiler Pipe Insulation	53	100%	53	1.00	53
		DHW Pipe Insulation	1,305	100%	1,305	1.00	1,305
		Handheld Showerhead (DI) SF	433	100%	433	1.02	442
		Kitchen Aerator SF (DI)	974	100%	974	1.02	994
		Programmable Thermostat (DI)	6,136	100%	6,136	1.00	6,136
		Re-Program Thermostat (DI)	1,176	100%	1,176	1.00	1,176
		Shower Flow Reducer (DI) SF	31	100%	31	1.02	31
	Showerhead (DI) SF	609	100%	609	1.02	621	
	Virtual Home Assessment	Air Handler Filter Replacement (VHA)	940	100%	940	1.00	940
		Air Sealing - Door Sweep (VHA)	127	100%	127	1.00	127
		Bathroom Aerator SF (VHA)	19	100%	19	1.02	19
		Boiler Pipe Insulation	3	100%	3	1.00	3
		DHW Pipe Insulation	122	100%	122	1.00	122
		Handheld Showerhead (VHA) SF	70	100%	70	1.02	72
		Kitchen Aerator SF (VHA)	30	100%	30	1.02	31
		Shower Flow Reducer (VHA) SF	7	100%	7	1.02	8
	Showerhead (VHA) SF	14	100%	14	1.02	14	
DAC subtotal			17,735	100%	17,735		17,783
Non-Disadvantaged Communities	Direct Install	Advanced Thermostat (DI) - Manual	5,228	100%	5,228	0.90	4,705

Program Category	Program Path	Savings Category	Ex Ante Gross Savings (Therms)	Verified Gross RR	Verified Gross Savings (Therms)	NTG	Verified Net Savings (Therms)
		Advanced Thermostat (DI) - Programmable	785	100%	785	0.90	706
		Air Sealing - Door Sweep (DI)	511	100%	511	0.88	450
		Bathroom Aerator SF (DI)	215	100%	215	1.02	219
		Boiler Pipe Insulation	116	100%	116	0.88	102
		DHW Pipe Insulation	1,134	100%	1,134	0.88	998
		Handheld Showerhead (DI) SF	383	100%	383	1.02	391
		Kitchen Aerator SF (DI)	441	100%	441	1.02	450
		Programmable Thermostat (DI)	3,170	100%	3,170	0.88	2,789
		Re-Program Thermostat (DI)	806	100%	806	0.80	645
		Shower Flow Reducer (DI) SF	19	100%	19	1.02	19
		Showerhead (DI) SF	470	100%	470	1.02	480
	Virtual Home Assessment	Air Handler Filter Replacement (VHA)	1,011	100%	1,011	0.88	890
		Air Sealing - Door Sweep (VHA)	110	100%	110	0.88	97
		Bathroom Aerator SF (VHA)	48	100%	48	1.02	49
		Boiler Pipe Insulation	100	100%	100	0.88	88
		DHW Pipe Insulation	245	100%	245	0.88	216
		Handheld Showerhead (VHA) SF	133	100%	133	1.02	135
		Kitchen Aerator SF (VHA)	26	100%	26	1.02	26
		Shower Flow Reducer (VHA) SF	37	100%	37	1.02	38
		Showerhead (VHA) SF	11	100%	11	1.02	11
			DAC subtotal	14,999	100%	14,999	
		Total or Weighted Average	32,734	100%	32,734		31,287

Note: Totals may not sum due to rounding.

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

The NSG program includes 34 measures as shown in the following table, divided by installation type (DI or VHA) and DAC or non-DAC. The Advanced Thermostats and DHW Pipe Insulation 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)	
Disadvantaged Communities	Direct Install	Advanced Thermostat (DI) - Manual	308	100%	308	1.00	308	
		Air Sealing - Door Sweep (DI)	22	100%	22	1.00	22	
		Bathroom Aerator SF (DI)	7	100%	7	1.02	7	
		Boiler Pipe Insulation	9	100%	9	1.00	9	
		DHW Pipe Insulation	24	100%	24	1.00	24	
		Handheld Showerhead (DI) SF	33	100%	33	1.02	34	
		Kitchen Aerator SF (DI)	71	100%	71	1.02	72	
		Programmable Thermostat (DI)	372	100%	372	1.00	372	
	Virtual Home Assessment	Air Handler Filter Replacement (VHA)	24	100%	24	1.00	24	
		Bathroom Aerator SF (VHA)	2	100%	2	1.02	2	
		Handheld Showerhead (VHA) SF	7	100%	7	1.02	8	
		Kitchen Aerator SF (VHA)	8	100%	8	1.02	8	
	DAC subtotal			901	100%	901		904
	Non-Disadvantaged Communities	Direct Install	Advanced Thermostat (DI) - Manual	2,563	100%	2,563	0.90	2,306
Advanced Thermostat (DI) - Programmable			285	100%	285	0.90	257	
Air Sealing - Door Sweep (DI)			453	100%	453	0.88	399	
Bathroom Aerator SF (DI)			220	100%	220	1.02	225	
Boiler Pipe Insulation			118	100%	118	0.88	104	
DHW Pipe Insulation			968	100%	968	0.88	852	
Handheld Showerhead (DI) SF			210	100%	210	1.02	214	
Kitchen Aerator SF (DI)			105	100%	105	1.02	107	
Programmable Thermostat (DI)			933	100%	933	0.88	821	
Re-Program Thermostat (DI)			249	100%	249	0.80	199	
Shower Flow Reducer (DI) SF			19	100%	19	1.02	19	
Showerhead (DI) SF	269	100%	269	1.02	275			

Program Category	Program Path	Savings Category	Ex Ante Gross Savings (Therms)	Verified Gross RR*	Verified Gross Savings (Therms)	NTG+	Verified Net Savings (Therms)
		Air Handler Filter Replacement (VHA)	705	100%	705	0.88	621
		Air Sealing - Door Sweep (VHA)	33	100%	33	0.88	29
		Bathroom Aerator SF (VHA)	19	100%	19	1.02	19
	Virtual Home Assessment	Boiler Pipe Insulation	40	100%	40	0.88	35
		DHW Pipe Insulation	75	100%	75	0.88	66
		Handheld Showerhead (VHA) SF	26	100%	26	1.02	26
		Kitchen Aerator SF (VHA)	15	100%	15	1.02	15
		Shower Flow Reducer (VHA) SF	22	100%	22	1.02	23
		Showerhead (VHA) SF	25	100%	25	1.02	26
			Non-DAC subtotal	7,353	100%	7,353	
		Total or Weighted Average	8,253	100%	8,253		7,541

Note: Totals may not sum due to rounding.

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

5. Impact Analysis Findings and Recommendations

5.1 Impact Parameter Estimates

Table 5-1 shows the unit therm savings and realization rate findings by measure from Guidehouse’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 above or below 100 percent. Appendix 1 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)	RR	Data Source(s)
Advanced Thermostat (DI) - Blended	Each	85.43	85.43	100%	Illinois TRM, v11.0†, Section 5.3.16, MMDB, PTD, and IC Calculator
Advanced Thermostat (DI) - Manual	Each	85.05 102.51 201.68	85.05 102.51 201.69	100%	Illinois TRM, v11.0†, Section 5.3.16, MMDB, PTD, and IC Calculator
Advanced Thermostat (DI) - Programmable	Each	71.36	71.36	100%	Illinois TRM, v11.0†, Section 5.3.16, MMDB, PTD, and IC Calculator
Air Handler Filter Replacement (VHA)	Each	7.84 15.42	7.84 15.43	100%	Illinois TRM, v11.0†, Section 5.3.21, IC Calculator
Air Sealing - Door Sweep (DI)	Each	7.30	7.30	100%	Illinois TRM, v11.0†, Section 5.6.1, IC Calculator
Air Sealing - Door Sweep (VHA)	Each	4.09	4.09	100%	Illinois TRM, v11.0†, Section 5.6.1, IC Calculator
Bathroom Aerator SF (DI)	Each	Varies	Varies	100%	Illinois TRM, v11.0†, Section 5.4.4, MMDB, PTD, and IC Calculator
Bathroom Aerator SF (VHA)	Each	0.32 0.82	0.32 0.83	100%	Illinois TRM, v11.0†, Section 5.4.2, MMDB, PTD, and IC Calculator
Boiler Pipe Insulation (DI)	Linear Feet	0.71	0.71	100%	Illinois TRM, v11.0†, Section 5.3.2, MMDB, PTD, and IC Calculator
Boiler Pipe Insulation (VHA)	Linear Feet	0.56	0.56	100%	Illinois TRM, v11.0†, Section 5.3.2, MMDB, PTD, and IC Calculator
DHW Pipe Insulation	Linear Feet	Varies	Varies	100%	Illinois TRM, v11.0†, Section 5.4.1, MMDB, PTD, and IC Calculator
Handheld Showerhead (DI) SF	Each	Varies	Varies	100%	Illinois TRM, v11.0†, Section 5.4.5, MMDB, PTD, and IC Calculator
Handheld Showerhead (VHA) SF	Each	3.71	3.71	100%	Illinois TRM, v11.0†, Section 5.4.5, MMDB, PTD, and IC Calculator
Kitchen Aerator SF (DI)	Each	Varies	Varies	100%	Illinois TRM, v11.0†, Section 5.4.4, MMDB, PTD, and IC Calculator
Kitchen Aerator SF (VHA)	Each	7.54	7.54	100%	Illinois TRM, v11.0†, Section 5.4.4, MMDB, PTD, and IC Calculator
Programmable Thermostat (DI) - Boiler	Each	62.31	62.31	100%	Illinois TRM, v11.0†, Section 5.3.11, MMDB, PTD, and IC Calculator

Measure	Unit Basis	Ex Ante Gross (therms/unit)	Verified Gross (therms/unit)	RR	Data Source(s)
Programmable Thermostat (DI) - Furnace	Each	122.59	122.59	100%	Illinois TRM, v11.0†, Section 5.3.11, MMDB, PTD, and IC Calculator
Re-Program Thermostat (DI) - Boiler	Each	62.31	62.31	100%	Illinois TRM, v11.0†, Section 5.3.11, MMDB, PTD, and IC Calculator
Re-Program Thermostat (DI) - Furnace	Each	122.59	122.59	100%	Illinois TRM, v11.0†, Section 5.3.11, MMDB, PTD, and IC Calculator
Shower Flow Reducer (DI) SF	Each	1.18	1.18	100%	Illinois TRM, v11.0†, Section 5.4.5, MMDB, PTD, and IC Calculator
		3.04	3.04		
		5.94	5.95		
Shower Flow Reducer (VHA) SF	Each	3.71	3.71	100%	Illinois TRM, v11.0†, Section 5.4.5, MMDB, PTD, and IC Calculator
Showerhead (DI) SF	Each	Varies	Varies	100%	Illinois TRM, v11.0†, Section 5.4.5, MMDB, PTD, and IC Calculator
Showerhead (VHA) SF	Each	1.45	1.45	100%	Illinois TRM, v11.0†, Section 5.4.5, MMDB, PTD, and IC Calculator
		3.71	3.72		

* Program Tracking Data (PTD) provided by Peoples Gas and North Shore Gas; extract dated January 30, 2024.

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

5.2 Findings and Recommendations

Finding 1. The evaluation team determined that 7 Boiler Pipe Insulation measures and 48 Domestic Hot Water Pipe Insulation measures were installed through the Virtual Home Assessment program path based on the gross ex ante savings values. Tracking data did not denote which pipe insulation measures were installed via DI or VHA.

Recommendation 1. Indicate whether pipe insulation measures are DI or VHA in the tracking data.

Appendix A. Impact Analysis Methodology

Guidehouse verified unit savings by using the impact algorithms in IL-TRM v11.0¹ and reviewed the ex ante savings calculation approach from the Master Measure Data Base (MMDB) and Resource Innovations calculation file.² In most cases, the TRM algorithms were correctly applied in the MMDB, but where evaluation found the need to make adjustments, Guidehouse did so accordingly with the TRM guidelines.

Guidehouse calculated verified net energy savings by multiplying the verified gross savings estimates by the NTG ratio. In 2023, the NTG estimates used to calculate the net verified savings were based on past evaluation research and defined by a consensus process through the Illinois Stakeholder Advisory Group (SAG). All DAC measures received a minimum NTG value of 1.0.

¹ Illinois Statewide Technical Reference Manual (IL-TRM) version 11.0 from <http://www.ilsag.info/technical-reference-manual.html>

² Franklin Energy Master Measure Database (MMDB - Res and MF, provided February 08, 2023). Excel file 2023_SFHU_Resource Innovations Savings Calculator.

Appendix B. 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 Path	Savings Category	Units	Quantity	Effective Useful Life	Ex Ante Gross Savings (Therms)	Verified Gross Savings (Therms)	Verified Net Savings (Therms)
Direct Install	Advanced Thermostat	Each	114	11	10,771	10,771	10,170
	Air Sealing - Door Sweep	Each	166	1	1,212	1,212	1,151
	Boiler Pipe Insulation	Linear Feet	238	15	169	169	155
	Domestic Hot Water Pipe Insulation	Linear Feet	1213	15	2,439	2,439	2,303
	Low Flow Faucet Aerator	Each	588	10	1,855	1,855	1,892
	Low Flow Showerhead	Each	638	10	1,945	1,945	1,984
	Programmable Thermostat	Each	142	8	9,306	9,306	8,926
	Re-Programmable Thermostat	Each	26	2	1,982	1,982	1,821
Virtual Home Assessment	Air Handler Filter Cleaning/Replacement	Each	246	3	1,951	1,951	1,830
	Air Sealing - Door Sweep	Each	58	1	237	237	224
	Boiler Pipe Insulation	Linear Feet	186	15	103	103	91
	Domestic Hot Water Pipe Insulation	Linear Feet	234	15	368	368	338
	Low Flow Faucet Aerator	Each	90	10	122	122	125
	Low Flow Showerhead	Each	76	10	273	273	278
Total or Weighted Average				11.3	32,734	32,734	31,287

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

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

Program Path	Savings Category	Units	Quantity	Effective Useful Life	Ex Ante Gross Savings (Therms)	Verified Gross Savings (Therms)	Verified Net Savings (Therms)
Direct Install	Advanced Thermostat	Each	42	11	3,156	3,156	2,871
	Air Sealing - Door Sweep	Each	65	1	475	475	420
	Boiler Pipe Insulation	Linear Feet	178	15	127	127	113
	Domestic Hot Water Pipe Insulation	Linear Feet	492	15	992	992	876
	Low Flow Faucet Aerator	Each	241	10	404	404	412
	Low Flow Showerhead	Each	182	10	547	547	558
	Programmable Thermostat	Each	21	8	1,304	1,304	1,193
	Re-Programmable Thermostat	Each	4	2	249	249	199
Virtual Home Assessment	Air Handler Filter Cleaning/Replacement	Each	92	3	729	729	644
	Air Sealing - Door Sweep	Each	8	1	33	33	29
	Boiler Pipe Insulation	Linear Feet	72	15	40	40	35
	Domestic Hot Water Pipe Insulation	Linear Feet	48	15	75	75	66
	Low Flow Faucet Aerator	Each	29	10	43	43	44
	Low Flow Showerhead	Each	23	10	81	81	82
Total or Weighted Average				11.8	8,253	8,253	7,541

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