

Home Energy Jumpstart Impact Evaluation Report

**Energy Efficiency Plan: Program Year 2024
(1/1/2024-12/31/2024)**

Prepared for:

**Peoples Gas and North Shore Gas
FINAL**

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Introduction

This report presents the results of the impact evaluation of the Peoples Gas (PGL) and North Shore Gas (NSG) 2024 Home Energy Jumpstart (HEJ) 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 2024 covers January 1, 2024 through December 31, 2024.

Program Description

The 2024 HEJ program is a single family 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 savings are included in a separate evaluation report delivered to ComEd.

The 2024 program consisted of two paths, Direct Install and Virtual (Self) Home Assessment (VHA) where a customer completes an online survey and has a kit of products shipped to their home at no cost for direct installation. Measures included low flow showerheads, kitchen and bathroom faucet aerators, programmable thermostats, smart thermostats, and pipe insulation at eligible single-family residences, including condominiums. The program provides recommendations for incentives for efficient measures and other available efficiency programs offered by ComEd, Nicor Gas, PGL, and NSG.

The program had 304 PGL participants in 2024 and completed 3464 projects, as shown in Table 1.

Table 1. 2024 Volumetric Summary for PGL

Participation	Direct Install	Virtual Home Assessment (VHA)	Total
Participants *	53	251	304
Installed Projects †	451	3,013	3,464
Measure Types Installed ‡	3	8	11

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

† Installed Projects represent the unique count of work orders completed.

‡ Measure Types Installed 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 summarizes the installed measure quantities that are the basis for verified energy savings for PGL.

Table 2. 2024 Installed Measure Quantities for PGL

Program Path	Measure	Quantity Unit	Installed Quantity
Direct Install	Advanced Thermostat (DI) - Blended	Unit	1
	Boiler Pipe Insulation	Unit	162
	DHW Pipe Insulation	Linear Feet	1,197
Virtual Home Assessment	Advanced Thermostat (Non-DI) - Blended	Unit	109
	Air Sealing - Door Sweep (VA)	Unit	908
	Bathroom Aerator SF (VA)	Unit	937
	Handheld Showerhead (VA) SF	Unit	333

Program Path	Measure	Quantity Unit	Installed Quantity
	Kitchen Aerator SF (VA)	Unit	362
	Programmable Thermostat (VA) SF	Unit	167
	Shower Flow Reducer (VA) SF	Unit	367
	Showerhead (VA) SF	Unit	193

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

The program had 70 NSG participants in 2024 and completed 909 projects, as shown in Table 3

Table 3. 2024 Volumetric Summary for NSG

Participation	Direct Install	Virtual Home Assessment (VHA)	Total
Participants *	10	60	70
Installed Projects †	133	776	909
Measure Types Installed ‡	2	8	10

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

† Installed Projects represent the unique count of work orders completed.

‡ Measure Types Installed are defined as the number of distinct measure IDs with realized gas savings.

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

Table 4. 2024 Installed Measure Quantities for NSG

Program Path	Measure	Quantity Unit	Installed Quantity
Direct Install	Boiler Pipe Insulation	Unit	24
	DHW Pipe Insulation	Linear Feet	375
	Advanced Thermostat (Non-DI) - Blended	Unit	19
	Air Sealing - Door Sweep (VA)	Unit	238
Virtual Home Assessment	Bathroom Aerator SF (VA)	Unit	279
	Handheld Showerhead (VA) SF	Unit	73
	Kitchen Aerator SF (VA)	Unit	93
	Programmable Thermostat (VA) SF	Unit	26
	Shower Flow Reducer (VA) SF	Unit	125
	Showerhead (VA) SF	Unit	55

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

Program Savings Detail

Table 5 summarizes the energy savings the PGL Home Energy Jumpstart Program achieved by path in 2024.

Table 5. 2024 Annual Energy Savings Summary for PGL

Program Category	Program Path	Ex Ante Gross Savings (Therms)	Verified Gross RR*	Verified Gross Savings (Therms)	NTG†	NPSO‡	Verified Net Savings (Therms)
Non-DAC	Direct Install	1,191	1.00	1,192	Varies	1.083	1,291
	Virtual Home Assessment	15,645	1.00	15,645	Varies	1.083	17,438
Non-DAC Subtotal		16,836	1.00	16,837			18,729
DAC	Direct Install	1,379	1.00	1,380	1.00	1.083	1,495

Program Category	Program Path	Ex Ante Gross Savings (Therms)	Verified Gross RR*	Verified Gross Savings (Therms)	NTG†	NPSO‡	Verified Net Savings (Therms)
	Virtual Home Assessment	17,967	1.00	17,957	1.00	1.083	19,727
DAC Subtotal		19,346	1.00	19,337			21,203
Total		36,182	1.00	36,175			39,932

* 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-2024/>. Disadvantaged communities (DAC) designated sites based on census tract have an NTG of 1.00.

‡ Non-participant spillover (NPSO) factor of 1.083.

Source: Evaluation team analysis.

Table 6 summarizes the energy savings the NSG Home Energy Jumpstart Program achieved by path in 2024.

Table 6. 2024 Annual Energy Savings Summary for NSG

Program Category	Program Path	Ex Ante Gross Savings (Therms)	Verified Gross RR*	Verified Gross Savings (Therms)	NTG†	NPSO‡	Verified Net Savings (Therms)
Non-DAC	Direct Install	669	1.00	669	Varies	1.083	724
	Virtual Home Assessment	6,123	1.00	6,123	Varies	1.083	6,906
Non-DAC Subtotal		6,792	1.00	6,792			7,631
DAC	Direct Install	98	1.00	98	1.00	1.083	105
	Virtual Home Assessment	1,017	1.00	1,017	1.00	1.083	1,119
DAC Subtotal		1,115	1.00	1,115			1,225
Total		7,908	1.00	7,908			8,855

‡ Non-participant spillover (NPSO) factor of 1.083.

Source: Evaluation team analysis.

Program Savings by Measure

The PGL program includes 21 measures, as shown in the following table. Table 7 is divided into installation type (DI or VHA) and DAC or non-DAC. The Advanced Thermostats and Programmable Thermostats contributed the most savings.

Table 7. 2024 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†	NPSO‡	Verified Net Savings (Therms)
Non-DAC	Direct Install	Boiler Pipe Insulation	35.67	1.04	37.04	0.99	1.083	40
		DHW Pipe Insulation	1,155	1.00	1,155	0.99	1.083	1,251
	Virtual Home Assessment	Advanced Thermostat (Non-DI) - Blended	6,291	1.00	6,291	0.94	1.083	6,813
		Air Sealing - Door Sweep (VA)	2,195	1.00	2,195	0.99	1.083	2,377
		Bathroom Aerator SF (VA)	355	1.00	355	1.09	1.083	419
		Handheld Showerhead (VA) SF	1,406	1.00	1,406	1.09	1.083	1,659

Program Category	Program Path	Savings Category	Ex Ante Gross Savings (Therms)	Verified Gross RR*	Verified Gross Savings (Therms)	NTG†	NPSO‡	Verified Net Savings (Therms)
		Kitchen Aerator SF (VA)	1,169	1.00	1,169	1.09	1.083	1,381
		Programmable Thermostat (VA) SF	2,085	1.00	2,085	0.99	1.083	2,258
		Shower Flow Reducer (VA) SF	1,388	1.00	1,388	1.09	1.083	1,638
		Showerhead (VA) SF	757	1.00	757	1.09	1.083	893
Non-DAC subtotal			16,836	1.00	16,837			18,729
DAC	Direct Install	Advanced Thermostat (DI) - Blended	85.42	1.00	85	1.00	1.083	87
		Boiler Pipe Insulation	35.67	1.04	37	1.00	1.083	40
		DHW Pipe Insulation	1,258	1.00	1,258	1.00	1.083	1,349
		Advanced Thermostat (Non-DI) - Blended	4,343	1.00	4,343	1.00	1.083	4,421
	Virtual Home Assessment	Air Sealing - Door Sweep (VA)	2,314	1.00	2,305	1.00	1.083	2,471
		Bathroom Aerator SF (VA)	415	1.00	415	1.09	1.083	490
		Handheld Showerhead (VA) SF	1,595	1.00	1,595	1.09	1.083	1,883
		Kitchen Aerator SF (VA)	1,562	1.00	1,562	1.09	1.083	1,844
		Programmable Thermostat (VA) SF	4,755	1.00	4,755	1.00	1.083	5,099
		Shower Flow Reducer (VA) SF	2,000	1.00	2,000	1.09	1.083	2,361
		Showerhead (VA) SF	982	1.00	982	1.09	1.083	1,159
		DAC subtotal			19,346	1.00	19,337	
Total			36,182	1.00	36,175			39,932

* 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-2024/>.

Disadvantaged communities (DAC) designated sites based on census tract have an NTG of 1.00.

‡ Non-participant spillover (NPSO) factor of 1.083.

Source: Evaluation team analysis.

The NSG program includes 20 measures, as shown in the following table. Table 8 is divided into installation type (DI or VHA) and DAC or non-DAC. The Advanced Thermostats and Air Sealing – Door Sweeps contributed the most savings.

Table 8. 2024 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†	NPSO‡	Verified Net Savings (Therms)
Non-DAC	Direct Install	Boiler Pipe Insulation	9.60	1.00	9.60	0.99	1.083	10
		DHW Pipe Insulation	659	1.00	659	0.99	1.083	714

Program Category	Program Path	Savings Category	Ex Ante Gross Savings (Therms)	Verified Gross RR*	Verified Gross Savings (Therms)	NTG†	NPSO‡	Verified Net Savings (Therms)
		Advanced Thermostat (Non-DI) - Blended	1,449	1.00	1,449	0.94	1.083	1,570
		Air Sealing - Door Sweep (VA)	1,023	1.00	1,023	0.99	1.083	1,108
		Bathroom Aerator SF (VA)	196	1.00	196	1.09	1.083	232
	Virtual Home Assessment	Handheld Showerhead (VA) SF	541	1.00	541	1.09	1.083	638
		Kitchen Aerator SF (VA)	611	1.00	611	1.09	1.083	721
		Programmable Thermostat (VA) SF	834	1.00	834	0.99	1.083	903
		Shower Flow Reducer (VA) SF	1,036	1.00	1,036	1.09	1.083	1,223
		Showerhead (VA) SF	433	1.00	433	1.09	1.083	511
		Non-DAC subtotal	6,792	1.00	6,792			7,631
	Direct Install	Boiler Pipe Insulation	1	1.00	1	1.00	1.083	1
		DHW Pipe Insulation	97	1.00	97	1.00	1.083	104
		Advanced Thermostat (Non-DI) - Blended	256	1.00	256	1.00	1.083	261
		Air Sealing - Door Sweep (VA)	159	1.00	159	1.00	1.083	170
		Bathroom Aerator SF (VA)	33	1.00	33	1.09	1.083	39
DAC	Virtual Home Assessment	Handheld Showerhead (VA) SF	117	1.00	117	1.09	1.083	138
		Kitchen Aerator SF (VA)	91	1.00	91	1.09	1.083	107
		Programmable Thermostat (VA) SF	208	1.00	208	1.00	1.083	223
		Shower Flow Reducer (VA) SF	90	1.00	90	1.09	1.083	106
		Showerhead (VA) SF	63	1.00	63	1.09	1.083	74
		DAC subtotal	1,115	1.00	1,115			1,225
		Total	7,908	1.00	7,908			8,855

Source: Evaluation team analysis.

Impact Analysis Findings and Recommendations

Table 9 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 the table, we provide findings and recommendations, including a discussion of all measures with realization rates above or below 100 percent.

Table 9. Verified Gross Savings Parameters

Measure	Unit Basis	Ex Ante Gross (therms/unit)	Verified Gross (therms/unit)	Realization Rate	Data Source(s)
Advanced Thermostat (DI) - Blended	Unit	85.43	85.43	100%	Illinois TRM, v12.0†, MMDB
Boiler Pipe Insulation	Unit	0.23, 0.45	0.45	100%, 200%	Illinois TRM, v12.0†, MMDB
DHW Pipe Insulation	Linear Feet	2.02	2.02	100%	Illinois TRM, v12.0†, MMDB
Advanced Thermostat (Non-DI) - Blended	Unit	85.43, 168.07	85.43, 168.07	100%	Illinois TRM, v12.0†, MMDB
Air Sealing - Door Sweep (VA)	Unit	4.97	4.97	100%	Illinois TRM, v12.0†, MMDB
Bathroom Aerator SF (VA)	Unit	0.82	0.82	100%	Illinois TRM, v12.0†, MMDB

Measure	Unit Basis	Ex Ante Gross (therms/unit)	Verified Gross (therms/unit)	Realization Rate	Data Source(s)
Handheld Showerhead (VA) SF	Unit	9.01	9.01	100%	Illinois TRM, v12.0†, MMDB
Kitchen Aerator SF (VA)	Unit	7.54	7.54	100%	Illinois TRM, v12.0†, MMDB
Programmable Thermostat (VA) SF	Unit	34.89, 68.65	34.89, 68.65	100%	Illinois TRM, v12.0†, MMDB
Shower Flow Reducer (VA) SF	Unit	9.01	9.01	100%	Illinois TRM, v12.0†, MMDB
Showerhead (VA) SF	Unit	9.01	9.01	100%	Illinois TRM, v12.0†, MMDB

* Program Tracking Data (PTD) provided by Peoples Gas and North Shore Gas; extract dated January 30, 2025.

† State of Illinois Technical Reference Manual version 12.0 from <http://www.ilsag.info/technical-reference-manual.html>.

Source: Evaluation team analysis.

Findings and Recommendations

Finding 1. The evaluation team found three instances of Boiler Pipe Insulation where the per unit savings (0.228661 therms/ft) did not match the deemed table in the MMDB (Measure IDs: MEA-2024.04.23-690004, MEA-2024.10.22-791610, and MEA-2024.11.13-808408).

Guidehouse used the per unit savings value of 0.4573217 therms/ft (R-3 insulation) for Boiler Pipe Insulation measures under the Direct Install program path.

Recommendation 1. Ensure that the quantity field in the tracking data is used in the savings algorithm, each of these cases in the finding had quantity values of 6 feet.

Finding 2. The tracking data did not have a field that distinguished the program paths (Direct Install or Virtual Home Assessment). Guidehouse used the retrofit name field to determine which program path to assign the correct measure in-service rate input.

Recommendation 2. Include a separate field that specifies the program path in the tracking data to enable the evaluation to adequately identify and verify the reported savings.

Appendix A. Program-Specific Inputs for the Illinois TRC

Table A-1 and Table A-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 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 A-1. 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	Unit	1	11.00	85	85	87
	Boiler Pipe Insulation	Unit	162	15.00	71	74	80
	DHW Pipe Insulation	Linear Feet	1197	15.00	2,413	2,413	2,600
Virtual Home Assessment	Advanced Thermostat	Unit	109	11.00	10,634	10,634	11,234
	Air Sealing - Door Sweep	Unit	908	1.00	4,510	4,500	4,848
	Low Flow Faucet Aerator	Unit	1299	10.00	3,501	3,501	4,133
	Low Flow Showerhead	Unit	893	10.00	8,128	8,128	9,594
	Programmable Thermostat	Unit	167	8.00	6,840	6,840	7,356
Total or Weighted Average			4,736	9.14	36,182	36,176	39,932

Source: Evaluation team analysis.

Table A-2. . 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	Boiler Pipe Insulation	Unit	24	15.00	11	11	11
	DHW Pipe Insulation	Linear Feet	375	15.00	756	756	818
	Advanced Thermostat	Unit	19	11.00	1,706	1,706	1,831
Virtual Home Assessment	Air Sealing - Door Sweep	Unit	238	1.00	1,182	1,182	1,278
	Low Flow Faucet Aerator	Unit	372	10.00	931	931	1,099
	Low Flow Showerhead	Unit	253	10.00	2,280	2,280	2,691
	Programmable Thermostat	Unit	26	8.00	1,042	1,042	1,127
Total or Weighted Average			1,307	9.09	7,908	7,908	8,855

Source: Evaluation team analysis.