

Small Business Program Impact Evaluation Report

Energy Efficiency Plan: Program Year 2022 (1/1/2022-12/31/2022)

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Nicor Gas Company

FINAL

June 9, 2023

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1. Introduction

This report presents the results of the impact evaluation of rhe Nicor Gas 2022 Small Business Energy Efficiency Program (SBEEP) and a summary of the energy impacts for the total program and broken out by relevant measures and program structure details. The appendices present the impact analysis methodology and Illinois total resource cost (TRC) inputs. Program year 2022 covers January 1, 2022 through December 31, 2022.

2. Program Description

The SBEEP program is designed to assist qualified Nicor Gas non-residential customers to achieve natural gas energy savings through installation of direct-install (DI) energy efficiency measures and prescriptive and custom incentives offered for select measures. The program targets both private sector and public sector customers.

The program had 379 participants in 2022 and completed 481 projects as shown in Table 2-1.

Participation	Direct Install	Prescriptive	Custom	Total
Private Sector				
Participants *	153	211	8	372
Installed Projects †	216	250	8	474
Measure Types Installed	7	10	2	19
Public Sector				
Participants *	2	0	5	7
Installed Projects †	2	0	5	7
Measure Types Installed	4	0	2	6
Program 2022 Total				
Participants *	155	211	13	379
Installed Projects †	218	250	13	481
Measure Types Installed	11	10	4	25

Table 2-1. 2022 Volumetric Findings Detail

* Participants are defined as unique site addresses

† Installed Projects are defined as unique project IDs

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.

Program Category	Program Path	Measure	Quantity Unit	Installed Quantity
Private	Direct Install	Commercial Weather Stripping	UNIT	6
Private	Direct Install	DHW WH Pipe Wrap - DI	LN FT	26
Private	Direct Install	Faucet Aerators - Bath - DI	UNIT	629
Private	Direct Install	Faucet Aerators - Kitchen - DI	UNIT	29
Private	Direct Install	Low Flow Shower Heads - DI	UNIT	59
Private	Direct Install	Spray Valve (Med Sized Restaurants)-DI	UNIT	23
Private	Direct Install	Spray Valve (Small Restaurants)-DI	UNIT	11
Private	Prescriptive	Condensing Boilers, >90%	UNIT	5
Private	Prescriptive	Furnace, >92% AFUE	Unit	1
Private	Prescriptive	Furnace, >95% AFUE	Unit	36
Private	Prescriptive	Infrared Heaters	Unit	4
Private	Prescriptive	Pipe Insulation, Indoor Hot Water DHW	LN FT	218
Private	Prescriptive	Pipe Insulation, Indoor HW Space Heat	LN FT	332
Private	Prescriptive	Small Commercial Thermostat	UNIT	1
Private	Prescriptive	Steam Trap, Commercial	UNIT	75
Public	Prescriptive	Steam Trap, Dry Cleaner	UNIT	1,400
Public	Prescriptive	Storage Water Heater, >88% TE	UNIT	1
Private	Custom	Custom > 7,500 therms	UNIT	1
Private	Custom	Custom 2,500-7,500 therms	Unit	7

Table 2-2. 2022 Installed Measure Quantities



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Program Category	Program Path	Measure	Quantity Unit	Installed Quantity
Public	Direct Install	Commercial Weather Stripping	Unit	6
Public	Direct Install	Faucet Aerators - Bath - DI	UNIT	10
Public	Direct Install	Low Flow Shower Heads - DI	UNIT	4
Public	Direct Install	Spray Valve (Small Restaurants)-DI	UNIT	1
Public	Custom	Custom > 7,500 therms	Unit	1
Public	Custom	Custom 2,500-7,500 therms	Unit	4

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

3. Program Savings Detail

Table 3-1 summarizes the energy savings the Small Business Energy Efficiency Program achieved by path in 2022.

Program Path	Ex Ante Gross Savings (Therms)	Verified Gross RR*	Verified Gross Savings (Therms	NTG†	Verified Net Savings (Therms)
Private					
Direct Install	13,227	106%	14,095	0.96	13,532
Prescriptive	724,234	130%	930,413	All Other Measures=0.96 Thermostat=0.98	893,199
Custom	28,466	98%	28,027	0.96	26,906
Private Subtotal	765,927	127%	972,536	0.96	933,637
Public					
Direct Install	284	122%	346	0.96	333
Custom	17,334	88%	15,300	0.96	14,688
Public Subtotal	17,618	89%	15,647	0.96	15,021
Total or Weighted Average	783,544	126%	988,183	0.96	948,658

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

† Net-to-Gross (NTG): A deemed value. Available on the SAG web site: <u>https://www.ilsag.info/evaluator-ntg-recommendations-for-2022/</u>. Source: Guidehouse evaluation team analysis.





4. Program Savings by Measure

The SBEEP program includes 25 measures as shown in Table 4-1. The custom measures and stream trap prescriptive measures contributed the most savings.

Program Managem ent	Program Path	Savings Category	Ex Ante Gross Savings (Therms)	Verified Gross RR*	Verified Gross Savings (Therms)	NTG†	Verified Net Savings (Therms)
	Direct Install	Commercial Weather Stripping	62	121%	75	0.96	73
	Direct Install	DHW WH Pipe Wrap - DI	28	100%	28	0.96	26
	Direct Install	Faucet Aerators - Bath - DI	6,494	100%	6,494	0.96	6,234
Private	Direct Install	Faucet Aerators - Kitchen - DI	289	90%	259	0.96	249
	Direct Install	Low Flow Shower Heads - DI	1,274	159%	2,025	0.96	1,944
	Direct Install	Spray Valve (Med Sized Restaurants)-DI	3,954	100%	3,954	0.96	3,796
	Direct Install	Spray Valve (Small Restaurants)-DI	1,126	112%	1,261	0.96	1,210
	Prescriptive	Condensing Boilers, >90%	11,391	99%	11,241	0.96	10,792
	Prescriptive	Furnace, >92% AFUE	97	140%	136	0.96	130
	Prescriptive	Furnace, >95% AFUE	10,626	100%	10,671	0.96	10,244
	Prescriptive	Infrared Heaters	879	100%	881	0.96	846
	Prescriptive	Pipe Insulation, Indoor Hot Water DHW	136	366%	497	0.96	477
	Prescriptive	Pipe Insulation, Indoor HW Space Heat	1,548	70%	1,082	0.96	1,039
	Prescriptive	Small Commercial Thermostat	126	100%	126	0.98	124
	Prescriptive	Steam Trap, Commercial	6,634	120%	7,962	0.96	7,643
	Prescriptive	Steam Trap, Dry Cleaner	692,673	130%	897,687	0.96	861,780
	Prescriptive	Storage Water Heater, >88% TE	124	104%	130	0.96	125
	Custom	Custom > 7,500 therms	9,699	96%	9,274	0.96	8,903
	Custom	Custom 2,500-7,500 therms	18,767	100%	18,753	0.96	18,003
Private Sub	ototal		765,927	127%	972,536	0.96	933,637
Public	Direct Install	Commercial Weather Stripping	55	99%	54	0.96	52

Table 4-1. 2022 Annual Energy Savings by Measure



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Program Managem ent	Program Path	Savings Category	Ex Ante Gross Savings (Therms)	Verified Gross RR*	Verified Gross Savings (Therms)	NTG†	Verified Net Savings (Therms)
	Direct Install	Faucet Aerators - Bath - DI	41	100%	41	0.96	39
	Direct Install	Low Flow Shower Heads - DI	86	159%	137	0.96	132
	Direct Install	Spray Valve (Small Restaurants)-DI	102	112%	115	0.96	110
	Custom	Custom > 7,500 therms	11,480	96%	11,010	0.96	10,570
	Custom	Custom 2,500-7,500 therms	5,854	73%	4,290	0.96	4,119
Public Sub	total		17,618	89%	15,647	0.96	15,021
Total or We	eighted Avera	ge	783,544	126%	988,183	0.96	948,658

* 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-2022/.

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

5. Impact Analysis Findings and Recommendations

5.1 Impact Parameter Estimates

Table 5-1 shows the unit therm savings and realization rate (RR) findings by measure from our review. The RR is the ratio of the verified savings to the ex ante savings. Following the table are findings and recommendations, including discussion of all measures with realization rates above or below 100%. Appendix 1 provides a description of the impact analysis methodology.

Table 5-1. Verified Gross Savings Parameters

Measure	Unit Basis	Ex Ante Gross (therms/unit)	Verified Gross (therms/unit)	Realization Rate	Data Source(s)
Commercial Weather Stripping	UNIT	9.71	10.77	111%	IL TRM v10, Section 4.8.16
Condensing Boilers, >90%	UNIT	2,278.27	2,248.26	99%	IL TRM v10, Section 4.4.10
DHW WH Pipe Wrap - DI	LN FT	1.06	1.06	100%	IL TRM v10, Section 4.4.14
Faucet Aerators - Bath - DI	UNIT	10.23	10.23	100%	IL TRM v10, Section 4.3.2
Faucet Aerators - Kitchen - DI	UNIT	9.97	8.94	90%	IL TRM v10, Section 4.3.2
Furnace, >92% AFUE	UNIT	96.73	135.90	140%	IL TRM v10, Section 4.4.11
Furnace, >95% AFUE	UNIT	295.17	296.41	100%	IL TRM v10, Section 4.4.11
Infrared Heaters	UNIT	219.65	220.21	100%	IL TRM v10, Section 4.4.12



Measure	Unit Basis	Ex Ante Gross (therms/unit)	Verified Gross (therms/unit)	Realization Rate	Data Source(s)
Low Flow Shower Heads - DI	UNIT	21.60	34.32	159%	IL TRM v10, Section 4.3.3
Pipe Insulation, Indoor Hot Water DHW	LN FT	0.62	2.28	366%	IL TRM v10, Section 4.8.14
Pipe Insulation, Indoor HW Space Heat	LN FT	4.66	3.26	70%	IL TRM v10, Section 4.8.14
Small Commercial Thermostat	UNIT	126.21	126.34	100%	IL TRM v10, Section 4.8.48
Spray Valve (Med Sized Restaurants)-DI	UNIT	171.92	171.92	100%	IL TRM v10, Section 4.2.11
Spray Valve (Small Restaurants)-DI	UNIT	102.33	114.61	112%	IL TRM v10, Section 4.2.11
Steam Trap, Commercial	UNIT	88.45	106.15	120%	IL TRM v10, Section 4.4.16
Steam Trap, Dry Cleaner	UNIT	494.77	641.21	130%	IL TRM v10, Section 4.4.16
Storage Water Heater, >88% TE	UNIT	124.27	129.85	104%	IL TRM v10, Section 4.3.1
Custom > 7,500 therms	UNIT	10,590	10,142	96%	Engineering File Review
Custom 2,500-7,500 therms	UNIT	2,238	2,095	94%	Engineering File Review

* Program Tracking Data (PTD) provided by Nicor Gas, extract dated January 31, 2023.

† State of Illinois Technical Reference Manual version 10.0 from http://www.ilsag.info/technical-reference-manual.html.

‡ Project files and monthly billing data provided by Nicor Gas. Where conducted, on-site or telephone interview data collected by Guidehouse.

5.2 Findings and Recommendations

Finding 1. While the Guidehouse team accepts the implementor ex ante value of 1.06 therms savings per year per foot of insulation for 2022 estimates, we note that this value is the result of an earlier estimate based on the IL-TRM v7. This calculation method has been updated in IL-TRM v10 to include the application of the 3EPlus pipe insulation model (IL-TRM v10, Vol 2 - C&I, Section 4.4.14). The 3EPlus model requires inputs on pipe size, thickness of insulation, type of insulation, process water temperature, ambient temperature, and location in the building (to determine the Thermal Regain Factor). Although the implementor did not provide many of these variables, the Guidehouse team did run several scenarios through the 3EPlus model and concluded that the current estimate of 1.06 therms savings/year/foot of insulation is a reasonable assumption. Going forward, the Guidehouse team recommends that the implementor provide the full suite of data required for the 3EPlus model.

Recommendation 1. The implementor team should utilize the standard of calculating pipe insulation savings (i.e., the 3EPlus model) as indicated in IL-TRM v10. The



implementor should also provide all required model input values to facilitate verification.

Finding 2. The verified gross realization rate (RR) for direct install kitchen faucet aerators is 90%. The Guidehouse team followed the IL-TRM v10 energy savings algorithm using default values, and where available, implementor tracker data. There were 18 Kitchen Aerator projects, 17 had 100% RR, but PRJ-3171859 had a RR of 52.2% (this was a religious building but the ex ante used a restaurant TRM assumption for annual gallons of usage).

Recommendation 2. The implementor should ensure the savings input in the tracking data for faucet aerators adequately reflect the claimed savings calculation.

Finding 3. Direct install spray valves for mid-sized restaurant had verified gross RR of 100% RR, but the spray valves for small restaurants had a verified gross RR of 112%. The Guidehouse team followed the IL-TRM v10 energy savings algorithm using default values, and where available, implementor tracker data. The tracking data inputs for the small restaurants produced 114.6 therms/unit of savings compare to the ex ante value 102.3 therms/unit.

Recommendation 3. The implementor should revisit and document the calculation methodology for direct install spray valves for small restaurants. Ensure that savings input in the tracking data for faucet aerators adequately reflect the claimed savings calculation.

Finding 4. The overall verified gross RR for condensing boilers is 99%. The verified RR was 100% for project numbers PRJ-3126002 and PRJ-3111989, where product specifications were correctly listed in the tracking data. For project number PRJ-3162361, the efficient equipment capacity was correctly applied at 399,000 Btu, however, the verified savings produced 94% RR, using IL TRM v10.

Recommendation 4. The implementer should ensure the savings input in the tracking data for condensing boilers adequately reflect the claimed savings calculation.

Finding 5. The verified gross RR for indoor DHW pipe insulation is 366%. Based on available information, the implementor incorrectly used the EFLH value of 8,272 hours and a Thermal Regain Factor (TRF) of 0.15 in the ex ante savings calculation. These values were corrected by the Guidehouse team to 8,766 hours and 0.55 based on the default values listed in IL-TRM v10.

Recommendation 5. Ensure the IL-TRM default values are correctly applied to ex ante savings calculations for indoor DHW pipe insulation measures.

Finding 6. The verified gross RR for indoor HW pipe insulation for space heating is 70%. Based on available information, the implementor incorrectly used the Thermal Regain Factor (TRF) of 1.0 in the ex ante savings calculation. This value was corrected by the Guidehouse team to 0.70 based on the default value listed in IL-TRM v10 for indoor, semi-conditioned space during the heating season.

Recommendation 6. Ensure the IL-TRM default values are correctly applied to ex ante savings calculations.





Finding 7. Steam traps for commercial/industrial processes have a gross RR of 120%. Steam traps for dry cleaners have a verified per unit RR of 130%. The implementor incorrectly used the energy savings methodology from IL-TRM v8. The Guidehouse team utilized the methodology from IL-TRM v10, resulting in an increased estimate of verified gross savings over the ex ante estimate.

Recommendation 7. Utilize the most recent IL-TRM calculation method for steam trap savings calculation.

Finding 8. The storage water heater measure had a verified gross RR of 104%. The efficient equipment capacity or size was incorrectly listed as 49 gallons. The Guidehouse team changed the capacity to 50 gallons based on product specifications.

Recommendation 8. Ensure the correct equipment capacity is captured for the efficiency case in the savings calculation.

Finding 9. Two private and public sector custom projects greater than 7,500 therms varied in type and have a verified gross RR of 96%. During evaluation, additional daily usage data were added to the Nicor Custom Lite Tool to update the results. Heating balance point temperatures were also adjusted to match the usage data. The addition of months of daily weather data enhanced the verified gross savings estimates.

Recommendation 9. When using the Custom Lite Tool, include a full year of weather data in the analysis for ex ante gross savings if available.

Finding 10. Eleven private and public sector custom projects less than or equal to 7,500 therms have an overall verified gross RR of 92%. Though most of these custom projects' RR were nearly 100%. Private sector project NG-21-20 had a verified gross RR of 92%, public sector project NGPS-20-42 had a verified gross RR of 35%, and public sector project NGPS-21-18 had a verified gross RR of 84%.

- Project NGPS-20-42 ex ante calculations used the entire plant gas usage to quantify savings. The verified calculations were updated to be based on the therm usage of only the sludge hot water boilers. Also, the verified calculation was updated to use a higher baseline efficiency for hot water boilers per the IL-TRM v10. The project was considered as an end of useful life replacement; therefore. the baseline efficiency was set at the industry standard equipment value.
- Project NG-21-20 building automation system (BAS) savings was included in the verified calculation since the connection of the new equipment to the BAS was confirmed. The BTU/hr. value was updated for certain units based on the nameplate data. Since the building is an existing building, the EFLH was updated based on IL-TRM v10. For the RTU Replacement measure, the savings calculation was updated based on IL-TRM v10. For the demand control ventilation (DCV) measure, the ex ante furnace output was updated to the gas furnace heating output of 323.6 kBtu/hr. based on IL-TRM v10.
- Project NGPS-21-18 used an incorrect heating zone in defining EFLH and temperature values in ex ante energy savings calculations. Verified calculations applied the correct



EFLH and temperature values based on the actual heating zone. A formula correction was applied in the verified air source heat pump savings calculation.

Recommendation 10. When calculating energy efficiency savings, confirm correct sitespecific parameters and IL-TRM default constants are used, when appropriate.

Finding 11. Ex ante Effective Useful Life (EUL) values for multiple private and public sector customer projects differ from the verified values, which would impact the lifetime energy savings calculations. Table 5-2 presents the ex ante and verified EULs for the custom projects.

Project ID	Ex Ante EUL	Verified EUL	Data Source(s)
NG-21-04	15.0	25.0	IL-TRM v10, Section 4.4.10
NG-21-06	15.0	15.0	No adjustment
NG-21-18	15.0	20.3	IL-TRM v10, Section 4.4.20 IL-TRM v10, Section 4.4.22
NG-21-20	15.0	15.0	No adjustment
NG-21-30	15.0	20.0	IL-TRM v10, Section 4.8.2
NGPS-21-14	15.0	15.0	No adjustment
NGPS-21-17	15.0	20.0	IL-TRM v10, Section 5.6.7
NGPS-21-18	15.0	16.0	IL-TRM v10, Section 4.4.9
NGPS-21-53	20.1	15.0	2021 Nicor Custom Program Impact Evaluation Report
NGPS-20-42	15.0	25.0	IL-TRM v10, Section 4.4.10
NG-21-41	20.1	15.0	2021 Nicor Custom Program Impact Evaluation Report
NG-22-08	15.0	25.0	IL-TRM v10, Section 4.4.10
NG-22-09	15.0	15.0	No adjustment

Table 5-2. Verified Custom Project EULs

Recommendation 11. Apply the appropriate EUL of each energy savings measure based on IL-TRM default values or custom values, whenever appropriate.





Appendix A. Impact Analysis Methodology

A.1 Engineering Review of Project Files

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

To support this review, the implementation contractor provided 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. Table A-1 provides a summary of verification results and adjustments for the Nicor Gas file reviews.

Project ID	Measure	Realization Rate	Comments
NG-21-04	Steam Boiler	99.2%	Boiler gas consumption calculation updated.
NG-21-06	Controls, Boiler, MAUs	100%	Twelve months of data is used as baseline, and 5 months of data is used as post implementation. If more data is available and used for post implementation, the savings estimate would be more reliable.
NG-21-18	Boiler Burner Replacement	100.3%	Removed the rounding in the Turndown calculations.
NG-21-20	RTU, DCV, BAS	92.4%	BAS savings included in the verified calculation since the connection of the new equipment to the BAS now confirmed. BTU/hr. value updated for certain units based on nameplate data. EFLH was revised based on IL-TRM v10 for existing building. For the RTU Replacement measure, the savings calculation was updated based on IL-TRM v10 for the RTU replacement measure. The ex ante furnace output for the DCV measure was updated to the gas furnace heating output of 323.6 kBtu/hr. based on IL-TRM v10
NG-21-30	Roof Insulation	100%	None
NGPS-21-14	BAS	94.2%	The Custom-Lite tool was used to perform the weather normalized analysis. In the baseline, weather independent usage was identified, but does not appear to be used in the post implementation case. It is recommended that a weather independent

Table A-1. Nicor Gas 2022 Summary of Sample M&V Results



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Project ID	Measure	Realization Rate	Comments
			component be used in both the Pre and Post simulations.
NGPS-21-17	Window Replacement	96.5%	Assumptions in the verified savings calculation were updated, which impacted the ex ante calculation for both the wall area and R values.
NGPS-21-18	VRF System	84.4%	An incorrect heating zone was used in defining EFLH and temperature values in ex ante energy savings calculations. Verified calculations applied the correct EFLH and temperature values based on the actual heating zone. A formula correction was applied in the verified air source heat pump savings calculation
NGPS-21-53	BAS	96%	Daily usage data were added to the ex ante savings simulation to update the results. Heating balance point temperatures were adjusted to match the data.
NGPS-20-42	Sludge Heating Units (Boiler Replacement)	84%	Ex ante calculations used the entire plant gas usage to quantify savings. The verified calculations were updated to be based on the therm usage of only the sludge hot water boilers. The verified calculation was updated to use a higher baseline efficiency for hot water boilers per the IL-TRM v10. The project was considered as an end of useful life replacement, therefore. the baseline efficiency was set at the industry standard equipment value.
NG-21-41	Enhanced controls	96%	Daily usage data were added to the ex ante savings simulation to update the results. Heating balance point temperatures were adjusted to match the data.
NG-22-08	Boiler Upgrade (Replacement)	98%	The efficiency used in the ex ante calculation was updated to match the provided equipment specifications.
NG-22-09	Pneumatic Controls Upgrade	110%	The ex ante savings used an average of the IL-TRM based savings and savings derived from a simulation tool. The verified savings calculation was based solely on using IL-TRM instead of an average.

Source: Guidehouse evaluation analysis of program data.



Appendix B. Program Specific Inputs for the Illinois TRC

Table B-1 shows 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.

Program Path	Savings Category	Units	Quantity	Effective Useful Life	Ex Ante Gross Savings (Therms)	Verified Gross Savings (Therms)	Verified Net Savings (Therms)
Direct Install	Commercial Weather Stripping	UNIT	12	10	116	129	124
Direct Install	DHW WH Pipe Wrap - DI	LN FT	26	15	28	28	26
Direct Install	Faucet Aerators - Bath - DI	UNIT	639	10	6,535	6,535	6,273
Direct Install	Faucet Aerators - Kitchen - DI	UNIT	29	10	289	259	249
Direct Install	Low Flow Shower Heads - DI	UNIT	63	10	1,361	2,162	2,076
Direct Install	Spray Valve (Med Sized Restaurants)-DI	UNIT	23	5	3,954	3,954	3,796
Direct Install	Spray Valve (Small Restaurants)-DI	UNIT	12	5	1,228	1,375	1,320
Prescriptive	Condensing Boilers, >90%	UNIT	5	25	11,391	11,241	10,792
Prescriptive	Furnace, >92% AFUE	Unit	1	25	97	136	130
Prescriptive	Furnace, >95% AFUE	Unit	36	25	10,626	10,671	10,244
Prescriptive	Infrared Heaters	Unit	4	15	879	881	846
Prescriptive	Pipe Insulation, Indoor Hot Water DHW	LN FT	218	15	136	497	477
Prescriptive	Pipe Insulation, Indoor HW Space Heat	LN FT	332	15	1,548	1,082	1,039
Prescriptive	Small Commercial Thermostat	UNIT	1	11	126	126	124
Prescriptive	Steam Trap, Commercial	UNIT	75	6	6,634	7,962	7,643

Table B-1. Verified Cost Effectiveness Inputs



Program Path	Savings Category	Units	Quantity	Effective Useful Life	Ex Ante Gross Savings (Therms)	Verified Gross Savings (Therms)	Verified Net Savings (Therms)
Prescriptive	Steam Trap, Dry Cleaner	UNIT	1400	6	692,673	897,687	861,780
Prescriptive	Storage Water Heater, >88% TE	UNIT	1	15	124	130	125
Custom	Custom > 7,500 therms	UNIT	2	15	21,179	20,284	19,473
Custom	Custom 2,500- 7,500 therms	Unit	11	18.9	24,621	23,044	22,122
Total or Weighted Average			7.0	783,544	988,183	948,658	

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