Guidehouse

Business Energy Efficiency Rebates Impact Evaluation Report

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

Prepared for:

Nicor Gas Company

FINAL

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Introduction

This report presents the results of the Nicor Gas 2024 Business Energy Efficiency Rebates (BEER) program. It presents a summary of the energy impacts for the total program and broken out by program path and relevant measures. The appendices present the impact analysis methodology and Illinois total resource cost (TRC) inputs. Program year 2024 covers January 1, 2024 through December 31, 2024.

Program Description

The BEER program provides incentives to business (private) and public sector customers that install new, high efficiency space heating, water heating, pipe insulation, commercial kitchen, and weatherstripping equipment covered by the program. The program consists of four delivery paths:

- Rebates for prescriptive cost-effective equipment as well as services (such as boiler tune-ups) to improve the energy efficiency of existing equipment.
- Free assessments and direct install measures, such as efficient faucet aerators, low-flow showerheads, and pre-rinse sprayers.
- Business optimization measures including steam traps and tune-ups.
- Midstream commercial food service (CFS) equipment incentives offering using midstream delivery channels. This path's goals are to reduce barriers for food service operators to purchasing energy efficient equipment, and to reduce energy usage in the commercial food service sector.

Also included in this report is the Building Operator Certification training and certification program. This program teaches participants how to improve building comfort and efficiency by optimizing a building's systems. This has been offered for several years by the Midwest Energy Efficiency Alliance, at full tuition reimbursement for ComEd, Ameren Illinois, and natural gas customers who complete the curriculum.

The program had 477 participants in 2024 and completed 551 projects as shown in Table 1. The program served customers in both the private and public sectors.

Table 1. 2024 Volumetric Findings Detail

Participation	Building Operator Certification	Business Optimization Program	Direct Install	Midstream CFS	Prescriptive	Total
Private Sector						
Participants *	9	75	72	84	98	**336**
Installed Projects †	9	87	73	89	105	**363**
Measure Types Installed ‡	1	5	5	11	19	**32**
Public Sector						
Participants *	8	1	20	0	113	**141**
Installed Projects †	8	1	21	0	158	**188**
Measure Types Installed ‡	1	2	5	0	10	**16**
Program 2024 Total						
Participants *	17	76	92	84	211	**477**
Installed Projects †	17	88	94	89	263	**551**
Measure Types Installed ‡	1	5	5	11	20	**33**

* Participants are defined as the distinct count of site addresses, or applicants for the Building Operator Certification path. The row total is a distinct count for the given sector or program total.
† Installed Projects are defined as the distinct count of project IDs. The row total is a distinct count for the given sector or program total.
‡ Measure Types Installed are defined as the distinct count of reporting measure types. The row total is a distinct count for the given sector or program total.
Source: Nicor Gas tracking data and evaluation team analysis

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

Table 2. 2024 Installed Measure Quantities

Program Category	Program Path	Measure	Quantity Unit	Installed Quantity
Private	Building Operator Certification	BOC	Participant	9
Private	Business Optimization Program	Boiler Tune Up, Process	Each	44
Private	Business Optimization Program	Pipe Insulation	Ln Ft	100
Private	Business Optimization Program	Steam Trap, Dry Cleaner	Each	277
Private	Business Optimization Program	Steam Trap, Industrial High Pressure	Each	135
Private	Business Optimization Program	Steam Trap, Industrial Medium Pressure	Each	263
Private	Direct Install	Faucet Aerator - Bath	Each	430
Private	Direct Install	Faucet Aerator - Kitchen	Each	2
Private	Direct Install	Garage Door Hinge	Each	202
Private	Direct Install	Pre-Rinse Spray Valves	Each	2
Private	Direct Install	Showerheads	Each	440
Private	Midstream CFS	Automatic Conveyor Broiler	Each	2
Private	Midstream CFS	Combination Oven	Each	10
Private	Midstream CFS	Convection Oven	Each	3
Private	Midstream CFS	Conveyor Oven	Each	21
Private	Midstream CFS	Fryer	Each	127
Private	Midstream CFS	Griddle	Each	15
Private	Midstream CFS	Infrared Salamander Broiler	Each	2
Private	Midstream CFS	Kitchen Demand Ventilation Controls	Each	12
Private	Midstream CFS	Pasta Cooker	Each	1
Private	Midstream CFS	Rack Oven - Double Oven	Each	1
Private	Midstream CFS	Rotisserie Oven	Each	1
Private	Prescriptive	Boiler Tune Up, Process	Each	3
Private	Prescriptive	Boiler Tune Up, Space Heating	Each	9
Private	Prescriptive	Combination Oven	Each	4
Private	Prescriptive	Compressed Air Heat Recovery	Each	2
Private	Prescriptive	Fryer	Each	51
Private	Prescriptive	Grain Dryer Tune-Up	Each	3
Private	Prescriptive	Griddle	Each	3
Private	Prescriptive	High Efficiency Boiler	Each	12
Private	Prescriptive	High Efficiency Furnace	Each	36
Private	Prescriptive	Infrared Charbroiler	Each	4
Private	Prescriptive	Ozone Laundry	Each	2
Private	Prescriptive	Pipe Insulation	Ln Ft	1,175
Private	Prescriptive	Pre-Rinse Spray Valves	Each	2
Private	Prescriptive	Small Commercial Thermostat	Each	3
Private	Prescriptive	Steam Trap, Commercial	Each	87
Private	Prescriptive	Steam Trap, Dry Cleaner	Each	185
Private	Prescriptive	Steam Trap, Industrial High Pressure	Each	94

Program Category	Program Path	Measure	Quantity Unit	Installed Quantity
Private	Prescriptive	Steam Trap, Industrial Medium Pressure	Each	85
Private	Prescriptive	Water Heater	Each	13
Public	Building Operator Certification	BOC	Participant	8
Public	Business Optimization Program	Steam Trap, Industrial High Pressure	Each	2
Public	Business Optimization Program	Steam Trap, Industrial Medium Pressure	Each	8
Public	Direct Install	Faucet Aerator - Bath	Each	178
Public	Direct Install	Faucet Aerator - Kitchen	Each	8
Public	Direct Install	Garage Door Hinge	Each	49
Public	Direct Install	Pre-Rinse Spray Valves	Each	2
Public	Direct Install	Showerheads	Each	7
Public	Prescriptive	Boiler Chemical Descaling	Each	2
Public	Prescriptive	Boiler Tune Up, Process	Each	6
Public	Prescriptive	Boiler Tune Up, Space Heating	Each	154
Public	Prescriptive	High Efficiency Boiler	Each	62
Public	Prescriptive	High Efficiency Furnace	Each	34
Public	Prescriptive	Pipe Insulation	Ln Ft	78
Public	Prescriptive	Steam Trap, Commercial	Each	11
Public	Prescriptive	Steam Trap, Industrial High Pressure	Each	14
Public	Prescriptive	Steam Trap, Industrial Medium Pressure	Each	41
Public	Prescriptive	Water Heater	Each	2

Source: Nicor Gas tracking data and evaluation team analysis

Program Savings Detail

Table 3 summarizes the energy savings the BEER Program achieved by path in 2024.

Table 3. 2024 Annual Energy Savings Summary

Program Category	Program Path	Ex Ante Gross Savings (Therms)	Verified Gross RR*	Verified Gross Savings (Therms)	NTG†	Verified Net Savings (Therms)
Private, Non-DAC	Building Operator Certification	13,036	117%	15,298	NA	15,298
Private, Non-DAC	Business Optimization Program	1,545,639	101%	1,562,832	0.92	1,437,806
Private, Non-DAC	Direct Install	15,373	103%	15,834	0.86	13,617
Private, Non-DAC	Midstream CFS	143,827	159%	229,382	0.80	183,506
Private, Non-DAC	Prescriptive	863,030	103%	885,758	Varies	761,776
Private, Non-DAC Subtotal		***2,580,906***	***105%***	***2,709,104***		***2,412,002***
Private, DAC	Business Optimization Program	132,896	113%	150,155	1.00	150,155
Private, DAC	Direct Install	2,847	100%	2,847	1.00	2,847
Private, DAC	Prescriptive	239,671	101%	242,716	1.00	242,716
Private, DAC Subtotal		***375,414***	***105%***	***395,718***		***395,718***
Public, Non-DAC	Building Operator Certification	14,116	89%	12,537	NA	12,537
Public, Non-DAC	Business Optimization Program	17,188	102%	17,529	0.92	16,127
Public, Non-DAC	Direct Install	3,407	132%	4,485	0.86	3,857
Public, Non-DAC	Prescriptive	608,202	110%	671,816	0.86	577,762
Public, Non-DAC Subtotal		***642,914***	***110%***	***706,367***		***610,283***
Public, DAC	Direct Install	89	100%	89	1.00	89
Public, DAC	Prescriptive	72,326	134%	97,211	1.00	97,211
Public, DAC Subtotal		***72,415***	***134%***	***97,300***		***97,300***

Program Category	Program Path	Ex Ante Gross Savings (Therms)	Verified Gross RR*	Verified Gross Savings (Therms)	NTG†	Verified Net Savings (Therms)
Total		**3,671,650**	**106%**	**3,908,490**		**3,515,304**

* 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/. Note: Note: All savings estimating algorithms presented in the IL TRM v12.0 for the Building Operator Certification measure are for net savings. Therefore, this measure does not require the additional application of a NTG value.
Source: Evaluation team analysis

Program Savings by Measure

The BEER program includes 33 measures as shown in Table 4. The Steam Trap, Industrial High Pressure and Steam Trap, Industrial Medium Pressure measures contributed the most savings.

Table 4. 2024 Annual Energy Savings by Measure

Program Category	Program Path	Savings Category	Ex Ante Gross Savings (Therms)	Verified Gross RR*	Verified Gross Savings (Therms)	NTG†	Verified Net Savings (Therms)
Private, Non-DAC	Building Operator Certification	BOC	13,036	117%	15,298	NA	15,298
Private, Non-DAC	Business Optimization Program	Boiler Tune Up, Process	169,317	100%	169,317	0.92	155,772
Private, Non-DAC	Business Optimization Program	Pipe Insulation	1,045	100%	1,045	0.92	961
Private, Non-DAC	Business Optimization Program	Steam Trap, Dry Cleaner	212,577	101%	214,846	0.92	197,659
Private, Non-DAC	Business Optimization Program	Steam Trap, Industrial High Pressure	816,818	101%	822,923	0.92	757,089
Private, Non-DAC	Business Optimization Program	Steam Trap, Industrial Medium Pressure	345,882	103%	354,701	0.92	326,325
Private, Non-DAC	Direct Install	Faucet Aerator - Bath	2,944	100%	2,944	0.86	2,532
Private, Non-DAC	Direct Install	Faucet Aerator - Kitchen	7	100%	7	0.86	6
Private, Non-DAC	Direct Install	Garage Door Hinge	8,305	106%	8,766	0.86	7,539
Private, Non-DAC	Direct Install	Pre-Rinse Spray Valves	396	100%	396	0.86	340
Private, Non-DAC	Direct Install	Showerheads	3,722	100%	3,722	0.86	3,201
Private, Non-DAC	Midstream CFS	Automatic Conveyor Broiler	5,952	100%	5,952	0.80	4,762
Private, Non-DAC	Midstream CFS	Combination Oven	6,261	78%	4,853	0.80	3,883
Private, Non-DAC	Midstream CFS	Convection Oven	690	99%	684	0.80	547
Private, Non-DAC	Midstream CFS	Conveyor Oven	21,198	98%	20,740	0.80	16,592
Private, Non-DAC	Midstream CFS	Fryer	87,916	107%	94,065	0.80	75,252
Private, Non-DAC	Midstream CFS	Griddle	7,851	109%	8,589	0.80	6,871
Private, Non-DAC	Midstream CFS	Infrared Salamander Broiler	480	100%	480	0.80	384
Private, Non-DAC	Midstream CFS	Kitchen Demand Ventilation Controls	9,288	965%	89,629	0.80	71,703
Private, Non-DAC	Midstream CFS	Pasta Cooker	1,380	100%	1,380	0.80	1,104
Private, Non-DAC	Midstream CFS	Rack Oven - Double Oven	1,986	110%	2,185	0.80	1,748

Program Category	Program Path	Savings Category	Ex Ante Gross Savings (Therms)	Verified Gross RR*	Verified Gross Savings (Therms)	NTG†	Verified Net Savings (Therms)
Private, Non-DAC	Midstream CFS	Rotisserie Oven	824	100%	824	0.80	659
Private, Non-DAC	Prescriptive	Boiler Tune Up, Process	46,466	111%	51,366	0.86	44,175
Private, Non-DAC	Prescriptive	Boiler Tune Up, Space Heating	50,809	100%	50,809	0.86	43,696
Private, Non-DAC	Prescriptive	Combination Oven	2,019	96%	1,946	0.86	1,673
Private, Non-DAC	Prescriptive	Compressed Air Heat Recovery	48,361	100%	48,361	0.86	41,590
Private, Non-DAC	Prescriptive	Fryer	26,722	116%	30,936	0.86	26,605
Private, Non-DAC	Prescriptive	Grain Dryer Tune-Up	39,906	100%	39,906	0.86	34,319
Private, Non-DAC	Prescriptive	Griddle	652	227%	1,481	0.86	1,274
Private, Non-DAC	Prescriptive	High Efficiency Boiler	17,296	131%	22,696	0.86	19,519
Private, Non-DAC	Prescriptive	High Efficiency Furnace	8,998	102%	9,212	0.86	7,922
Private, Non-DAC	Prescriptive	Infrared Charbroiler	2,827	100%	2,827	0.86	2,431
Private, Non-DAC	Prescriptive	Ozone Laundry	18,854	99%	18,606	0.86	16,001
Private, Non-DAC	Prescriptive	Pipe Insulation	4,412	100%	4,412	0.86	3,794
Private, Non-DAC	Prescriptive	Pre-Rinse Spray Valves	475	92%	438	0.86	377
Private, Non-DAC	Prescriptive	Small Commercial Thermostat	406	100%	406	0.92	373
Private, Non-DAC	Prescriptive	Steam Trap, Commercial	152	106%	161	0.86	139
Private, Non-DAC	Prescriptive	Steam Trap, Dry Cleaner	82,199	101%	83,076	0.86	71,445
Private, Non-DAC	Prescriptive	Steam Trap, Industrial High Pressure	418,189	101%	421,297	0.86	362,315
Private, Non-DAC	Prescriptive	Steam Trap, Industrial Medium Pressure	93,509	103%	96,036	0.86	82,591
Private, Non-DAC	Prescriptive	Water Heater	779	229%	1,787	0.86	1,537
Private, Non-DAC Subtotal			***2,580,906***	***105%***	***2,709,104***		***2,412,002***
Private, DAC	Business Optimization Program	Boiler Tune Up, Process	42,382	138%	58,551	1.00	58,551
Private, DAC	Business Optimization Program	Steam Trap, Dry Cleaner	80,377	101%	81,235	1.00	81,235
Private, DAC	Business Optimization Program	Steam Trap, Industrial High Pressure	5,507	101%	5,557	1.00	5,557
Private, DAC	Business Optimization Program	Steam Trap, Industrial Medium Pressure	4,630	104%	4,812	1.00	4,812
Private, DAC	Direct Install	Faucet Aerator - Bath	135	100%	135	1.00	135
Private, DAC	Direct Install	Garage Door Hinge	1,715	100%	1,715	1.00	1,715
Private, DAC	Direct Install	Showerheads	997	100%	997	1.00	997
Private, DAC	Prescriptive	Fryer	3,095	111%	3,435	1.00	3,435
Private, DAC	Prescriptive	High Efficiency Furnace	2,675	101%	2,689	1.00	2,689
Private, DAC	Prescriptive	Ozone Laundry	37,411	100%	37,411	1.00	37,411
Private, DAC	Prescriptive	Steam Trap, Commercial	17,249	106%	18,259	1.00	18,259
Private, DAC	Prescriptive	Steam Trap, Dry Cleaner	47,516	101%	48,023	1.00	48,023
Private, DAC	Prescriptive	Steam Trap, Industrial High Pressure	119,400	101%	120,346	1.00	120,346
Private, DAC	Prescriptive	Steam Trap, Industrial Medium Pressure	12,325	102%	12,554	1.00	12,554
Private, DAC Subtotal			***375,414***	***105%***	***395,718***		***395,718***

Program Category	Program Path	Savings Category	Ex Ante Gross Savings (Therms)	Verified Gross RR*	Verified Gross Savings (Therms)	NTG†	Verified Net Savings (Therms)
Public, Non-DAC	Building Operator Certification	BOC	14,116	89%	12,537	NA	12,537
Public, Non-DAC	Business Optimization Program	Steam Trap, Industrial High Pressure	11,015	101%	11,114	0.92	10,225
Public, Non-DAC	Business Optimization Program	Steam Trap, Industrial Medium Pressure	6,173	104%	6,415	0.92	5,902
Public, Non-DAC	Direct Install	Faucet Aerator - Bath	1,470	100%	1,470	0.86	1,264
Public, Non-DAC	Direct Install	Faucet Aerator - Kitchen	53	100%	53	0.86	46
Public, Non-DAC	Direct Install	Garage Door Hinge	1,334	181%	2,412	0.86	2,075
Public, Non-DAC	Direct Install	Pre-Rinse Spray Valves	475	100%	475	0.86	408
Public, Non-DAC	Direct Install	Showerheads	75	100%	75	0.86	65
Public, Non-DAC	Prescriptive	Boiler Chemical Descaling	2,982	63%	1,876	0.86	1,613
Public, Non-DAC	Prescriptive	Boiler Tune Up, Process	83	100%	83	0.86	71
Public, Non-DAC	Prescriptive	Boiler Tune Up, Space Heating	325,813	100%	325,813	0.86	280,200
Public, Non-DAC	Prescriptive	High Efficiency Boiler	161,727	139%	224,866	0.86	193,385
Public, Non-DAC	Prescriptive	High Efficiency Furnace	9,817	100%	9,817	0.86	8,443
Public, Non-DAC	Prescriptive	Pipe Insulation	49	100%	49	0.86	42
Public, Non-DAC	Prescriptive	Steam Trap, Commercial	1,593	106%	1,686	0.86	1,450
Public, Non-DAC	Prescriptive	Steam Trap, Industrial High Pressure	75,906	101%	76,439	0.86	65,737
Public, Non-DAC	Prescriptive	Steam Trap, Industrial Medium Pressure	30,154	103%	31,086	0.86	26,734
Public, Non-DAC	Prescriptive	Water Heater	79	128%	102	0.86	87
Public, Non-DAC Subtotal			***642,914***	***1.10***	***706,367***		***610,283***
Public, DAC	Direct Install	Faucet Aerator - Bath	81	100%	81	1.00	81
Public, DAC	Direct Install	Faucet Aerator - Kitchen	8	100%	8	1.00	8
Public, DAC	Prescriptive	Boiler Tune Up, Process	2,162	177%	3,836	1.00	3,836
Public, DAC	Prescriptive	Boiler Tune Up, Space Heating	11,928	100%	11,928	1.00	11,928
Public, DAC	Prescriptive	High Efficiency Boiler	57,205	141%	80,382	1.00	80,382
Public, DAC	Prescriptive	High Efficiency Furnace	1,031	103%	1,065	1.00	1,065
Public, DAC Subtotal			***72,415***	***134%***	***97,300***		***97,300***
Total			**3,671,650**	**106%**	**3,908,490**		**3,515,304**

* 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/.
Note: All savings estimating algorithms presented in the IL TRM v12.0 for the Building Operator Certification measure are for net savings. Therefore, this measure does not require the additional application of an NTG value.
Source: Evaluation team analysis

Impact Analysis Findings and Recommendations

Impact Parameter Estimates

Table 5 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%. Appendix A provides a description of the impact analysis methodology.

Table 5. Verified Gross Savings Parameters

Measure	Unit Basis	Ex Ante Gross (therms/unit)	Verified Gross (therms/unit)	Realization Rate	Data Source(s)
Automatic Conveyor Broiler	Each	Varies	Varies	100%	IL TRM v12.0†, Section 4.2.22
BOC (in TRM)	Sq. ft.	Varies	0.0046	Vary	Section 4.8.24 and PTD*
Boiler Chemical Descaling	Each	Varies	Varies	63%	Section 4.4.49
Boiler Tune Up, Process	Each	Varies	Varies	109%	Section 4.4.3
Boiler Tune Up, Space Heating	Each	Varies	Varies	100%	Section 4.4.2
Combination Oven	Each	Varies	Varies	82%	Section, 4.2.1
Compressed Air Heat Recovery	Each	Varies	Varies	100%	Section 4.7.9
Convection Oven	Each	Varies	Varies	99%	Section 4.2.5
Conveyor Oven	Each	Varies	Varies	98%	Section 4.2.4
Faucet Aerator - Bath	Each	Varies	Varies	100%	Section 4.3.2
Faucet Aerator - Kitchen	Each	Varies	Varies	100%	Section 4.3.2
Fryer	Each	Varies	Varies	109%	Section 4.2.7
Garage Door Hinge	Each	Varies	Varies	114%	Section 4.8.12
Grain Dryer Tune-Up	Each	Varies	Varies	100%	Section 4.1.15
Griddle	Each	Varies	Varies	118%	Section 4.2.8
High Efficiency Boiler	Each	Varies	Varies	139%	Section 4.4.10, IL TRM v12.0 Errata Memo
High Efficiency Furnace	Each	Varies	Varies	101%	Section 4.4.11
Infrared Charbroiler	Each	Varies	Varies	100%	Section 4.2.12
Infrared Salamander Broiler	Each	Varies	Varies	100%	Section 4.2.14
Kitchen Demand Ventilation Controls	Each	Varies	Varies	965%	Section 4.2.16
Ozone Laundry	Each	Varies	Varies	100%	Section 4.3.6
Pasta Cooker	Each	1380	1380	100%	Section 4.2.17
Pipe Insulation	Ln Ft	Varies	Varies	100%	Section 4.4.14
Pre-Rinse Spray Valves	Each	Varies	Varies	97%	Section 4.2.11
Rack Oven - Double Oven	Each	Varies	Varies	110%	Section 4.2.18, IL TRM v12.0 Errata Memo
Rotisserie Oven	Each	Varies	Varies	100%	Section 4.2.13
Showerheads	Each	Varies	Varies	100%	Section 4.3.3
Small Commercial Thermostat	Each	Varies	Varies	100%	Section 4.4.48
Steam Trap, Commercial	Each	Varies	Varies	106%	Section 4.4.16
Steam Trap, Dry Cleaner	Each	Varies	Varies	101%	Section 4.4.16
Steam Trap, Industrial High Pressure	Each	Varies	Varies	101%	Section 4.4.16
Steam Trap, Industrial Medium Pressure	Each	Varies	Varies	103%	Section 4.4.16
Water Heater	Each	Varies	Varies	220%	Section 4.3.1

* Program Tracking Data (PTD) provided by Nicor Gas, extract dated January 30, 2025.
† State of Illinois Technical Reference Manual version 12.0 from http://www.ilsag.info/technical-reference-manual.html.

Findings and Recommendations

Food Service Equipment

Finding 1a. The evaluation team compared variable inputs in the tracking data to the Qualified Products List (QPL) according to manufacturer and model number for measures in the Food Service Equipment end use. The Combination Oven, Convection Oven, Fryer (Standard and Large Vat), Griddle, Conveyor Oven >=25in, and Rotisserie Oven measures had some input values that did not match between the tracking data and QPL, so verified savings utilize the QPL values.

Finding 1b. The Rack Oven – Double Oven measure only provided an efficiency value in the tracking data, this did not align with the QPL so verified savings utilized the QPL for the efficiency. Verified savings also use the QPL to fill in all other input values for this measure.

Finding 1c. The evaluation team was unable to recreate ex ante savings for some Fryer, Griddle, Combination Oven, and Convection Oven measures before applying any of these QPL changes.

> **Recommendation 1.** Review the QPL and tracking data to ensure reported measure input values align and ex ante savings reflect the tracking data values. Review the ex ante algorithms, especially the Idle Energy term, to confirm they are producing the correct value.

Finding 2. The evaluation team found instances of Food Service Equipment end use measures, such as some Fryer, Griddle, and Rotisserie Oven, with values in the tracking data that do not align with the QPL but ex ante savings reflect QPL values. This indicates the tracking data values do not support the ex ante savings calculations. Verified savings use the QPL values so this has no impact on the realization rate for these measures.

> **Recommendation 2.** Review the QPL and tracking data to ensure tracking data measure input values align with reported ex ante savings.

Finding 3. The evaluation team compares tracking data inputs against the QPL according to manufacturer and model number for Food Service Equipment. There are a few instances where the evaluation team could not utilize the QPL:

- The Infrared Charbroiler measures manufactured by Vulcan with the model numbers “VCCB25” and “VBBC60” could not be found in the QPL so verified savings utilize input values from the tracking data.
- The Pre-Rinse Spray Valve measures manufactured by Niagra with the model number “N2180-1.1” could not be found in the QPL so verified savings utilize input values from the tracking data.
- The Fryer measure manufactured by Pitco with the model number “SSH60” in the tracking data did not have enough details provided in the tracking data’s model number to utilize the QPL so verified savings utilize input values from the tracking data.
- The Conveyor Oven <25in measures had no information provided in the tracking data so verified savings utilize input values from the TRM.

- The Infrared Salamander Broiler utilizes the TRM algorithms and values because it is not clear which column contains the Energy Input Rate value, the main value listed in the QPL. Verified savings utilize input values from the tracking data.
- The Pasta Cooker measure utilizes a deemed savings approach. This deemed value is used by both ex ante and verified savings.
- The Kitchen Demand Ventilation Controls measure only has incentive information listed in the QPL so verified savings utilize input values from the tracking data.

Recommendation 3. Review the model numbers provided in the tracking data against the QPL to make sure the two align. Ensure the variable inputs are provided for all tracking data measures as appliable and that they are clearly labeled in the column header.

Finding 4. As noted during the midyear interim impact analysis[1], the evaluation team observed ex ante savings calculations for the Kitchen Demand Ventilation Controls measures do not include the horsepower (HP) variable. The IL TRM v12.0 outlines this input as the second term in the savings calculation. The tracking data has 7.75 HP value, but this value aligned with a previous version of the TRM. The TRM v12.0 for 2024 lists a value of 9.65 HP, which we used in the verified savings calculation.

Recommendation 4. Ensure tracking data inputs align with the most recent version of the TRM and ensure ex ante savings calculations include all necessary inputs.

Finding 5. The IL TRM v12.0 Errata Memo has updated the Days value for the Rack Oven – Double Oven measure to 365 with no language allowing a custom actual value. Verified savings use this TRM value instead of the 312 in the tracking data's OperationDaysYear column.

Recommendation 5. Ensure ex ante savings calculations for Rack Oven – Double Oven utilizes deemed inputs from the current TRM Errata Memo.

HVAC

Finding 6. As noted during the midyear interim impact analysis, the evaluation team observed ex ante savings utilize the tracking data column 'Utilization Factor' for the T1 variable's value for all Steam Trap measures. The source of these values is unclear, they should be based on an equation provided in IL TRM v12.0. Verified savings use the IL TRM v12.0 equation to calculate the T1 value.

Recommendation 6. Provide more information on the source of the T1 values in the 'Utilization Factor' column of the tracking data or ensure the tracking data inputs align with the current IL TRM.

Finding 7. The evaluation team was unable to recreate ex ante savings for some High Efficiency Furnace, High Efficiency Boiler, Boiler Chemical Descaling, and Boiler Tune Up, Process measures. Verified savings use information provided in the tracking data and the IL TRM v12.0.

Recommendation 7. Ensure the input values provided in the tracking data for the High Efficiency Furnace, High Efficiency Boiler, Boiler Chemical Descaling, and Boiler Tune Up, Process measures support the ex ante savings in the tracking data.

[1] Nicor Gas 2024 Interim Impact Review Summary Findings_2024-12-15 Final

Finding 8. The evaluation team found the values in PreInstallationEfficiency and PostInstallationEfficiency tracking data columns were switched for Boiler Tune Up, Process' MeasureID_IC MLI – 24180565 and Boiler Tune Up, Space Heating's MeasureID_IC MLI – 19979260. The values as written were producing negative savings, so verified savings utilize the PostInstallationEffieciency value for the Pre-installation efficiency variable and the PreInstallationEfficiency value for the Post-installation efficiency variable. This had no impact on the realization rate.

Recommendation 8. Ensure the values provided in the PreInstallationEfficiency and PostInstallationEfficiency tracking data columns are accurate and support the ex ante savings calculation.

Finding 9. Verified savings treat the tracking data measures Condensing Boilers, >90% and Non-Condensing Boilers, >85% as Hot Water High Efficiency Boilers. The IL TRM v12.0 Errata Memo has updated the baseline efficiency values for measures with capacity ranging from 300,00 to 2,500,000 Btu/hr from 84% to 80%. This update was necessary for all measures except for MeasureID_IC MLI – 17905225 and MLI – 17905248 since they have a capacity of 199,000 Btuh/hr in the tracking data. Some measures that were impacted had a realization rate of 100%, indicating these correctly incorporate the errata, while others did not.

Recommendation 9. Ensure ex ante savings from boilers align with the applicable IL TRM, and values reported in the tracking data consistently support ex ante savings calculations.

Finding 10. The evaluation team had the following observations surrounding Equivalent Full Load Hours (EFLH):

- High Efficiency Furnace's MeasureID_IC MLI – 21376391 was reported as having an Office – Low Rise building type in the tracking data, but the value in the tracking data's EquivalentFullLoadHours column is 1325 hours. This measure is installed in climate zone 2 and should thus report an EFLH of 2625 hours. Ex ante savings appear to reflect this value so there is no impact on the realization rate.
- The tracking data reported a building type of "-1" for some instances of Steam Trap, Industrial High Pressure, Boiler Tune Up, Process, Steam Trap, Industrial Medium Pressure, Faucet Aerator – Bath, High Efficiency Furnace, High Efficiency Boiler, Pipe Insulation, Compressed Air Heat Recovery, and Building Operator Certification measures. Verified savings use values from the tracking data's EquivalentFullLoadHours column where a given measure needs the EFLH input. This has no impact on the realization rate.
- The tracking data reported a Public Sector building type for one instance of the Faucet Aerator – Bath measure and two instances of the High Efficiency Boiler measure. This building type was removed from the TRM in version 9. Verified savings use values from the tracking data's EquivalentFullLoadHours column for the EFLH input. This has no impact on the realization rate.

Recommendation 10. Ensure the input values, climate zone and building types provided in the tracking data reflect the ex ante savings and align with the building types listed in the IL TRM v12.0.

Hot Water

Finding 11. Similar to the midyear interim impact analysis, the evaluation team used address information and tracking data clues to conclude both Ozone Laundry measures' applications were Laundromat.

> **Recommendation 11.** Include the application type in the tracking data for Ozone Laundry measures to avoid potential savings discrepancies.

Finding 12. The evaluation team was unable to recreate ex ante savings for the Water Heater measures. The Tankless Water Heater type provided no information in the tracking data's Size column, verified savings assumed 50 gallons for these measures. Size is needed to inform the estimated annual hot water consumption in gallons (HotWaterUse_gallons). The tracking data did not provide information for Tankless Water Heater type in "StandbyLoss" column, so standby losses were only calculated for the Storage Water Heater type.

> **Recommendation 12.** Provide all necessary savings input in the tracking data to support the Storage and Tankless Water Heater ex ante values, specifically Size and Standby Loss for Tankless Water Heater measures. This will help to avoid savings discrepancies in the future.

Miscellaneous

Finding 13. Verified savings follow the IL TRM v12.0 deemed existing building therms values for Garage Door Hinge measures. These values were determined using the tracking data building type and zip code to determine the climate zone. The evaluation team was unable to replicate ex ante savings for this measure.

> **Recommendation 13.** Provide all necessary details in the tracking data to follow the IL TRM v12.0 deemed savings tables for Garage Door Hinge measures. The tracking data does have Climate Zone and Building Type, but do not specify if the measure is installed as a retrofit or new construction measure. If ex ante savings follow the TRM's algorithm, ensure the tracking data reflects that by providing all necessary input values.

Building Operator Certification

Finding 14. The gas savings for multiple projects were calculated using incorrect managed square footage as compared to the value reported in the project files.

- **BOC202406.** The Nicor Gas tracking data reported a managed square footage of 300,000 ft^2 for this participant. The evaluation team verified a managed square footage of 542,000 ft^2 for this participant consistent with the ComEd tracking data and the project files and updated the verified savings accordingly.
- **BOC202408.** For this participant, the Nicor Gas tracking data reported a managed square footage of 234,840 ft^2. The evaluation team verified a managed square footage of over 500,000 ft^2 for this participant consistent with the ComEd tracking data and the project files and updated the verified savings accordingly.
- **BOC202443.** For this participant who reported operating two buildings in the project files, the Nicor Gas tracking data only reported a managed square footage of 100,000 ft^2 corresponding to Building 1. The evaluation team verified a total managed square footage of over 500,000 ft^2 for this participant after including both buildings and updated the verified savings accordingly.

Recommendation 14. Implement quality control checks to ensure that the managed square footage in the tracking data is consistent with the total managed square footage in the project files. In instances where the participant reports operating more than one building, ensure that the tracking data reported area includes the managed square footage from all operated buildings.

Finding 15. For three projects, the evaluation team updated the building area operated by the participant based on online research and detailed review of area information in the project files.

- **BOC202403.** The participant reported operating one building with a managed square footage of 240,000 ft^2. The evaluation team updated the area using a building flyer from the real estate developers for this building and verified savings for a managed square footage of 220,070 ft^2.
- **BOC202440.** The project file for this participant included a detailed space-by-space breakdown of the total building area at the managed facility. The evaluation team used this information and updated the managed square footage from 250,000 ft^2 to 240,050 ft^2 after excluding any area corresponding to open-air spaces and greenhouse facilities.
- **BOC202401.** The participant only reported one building address in the project file with a managed square footage of more than 500,000 ft^2. The evaluation team updated the managed area for this building using the facility information found on the county website and verified savings for a managed square footage of 294,200 ft^2.

  Recommendation 15. Ensure the managed square footage used to calculate ex ante savings does not include any open-air or unmanaged spaces at the building. If a participant operates more than one building, confirm details for all operated buildings are included in the project file.

Finding 16. For some facilities with multiple participants, the evaluation team verified different managed square footage as compared to the tracking data and project files after accounting for all the building square footage previously claimed through the program.

- **BOC202401 and BOC202402.** This facility had two participants in CY2024, with both participants reporting the same building address (one building with 50% of the time for both participants) for operated building in the project files. The program claimed savings for a managed square footage of 500,000 ft^2 for one participant (BOC202401) and 402,800 ft^2 for the other participant (BOC202402). As detailed in Finding 2 above, the evaluation team verified savings only for a managed square footage of 294,200 ft^2 for BOC202401 resulting in a realization rate of 0.59. For BOC202402, since the savings associated with the building were already verified for BOC202401, the evaluation team verified no additional savings for this participant.
- **BOC202405 and BOC202446.** This facility had two participants in CY2024, with both participants managing the same building (100% of the time for one participant and 90% of the time for the other) and one of them (BOC202446) also managing another two buildings. The evaluation team verified a realization rate of 1.00 for BOC202405 using the maximum eligible area per participant (500,000 ft^2) of the total managed square footage of 808,840 ft^2 for the building in common. For BOC202446, the evaluation team updated the managed square footage from 500,000 ft^2 to 421,484 ft^2 (308,840 ft^2 + 47,142 ft^2 + 65,502 ft^2) using the remaining managed area for the building in common and the full managed area for the two other buildings reported in the project files.

Recommendation 16. Administer additional scrutiny during the savings review for facilities that have multiple participants in the same program year or repeat participation (same participant or same building) across multiple program years to ensure savings are not claimed based on the same square footage for multiple participants.

Disadvantaged Communities

Finding 17. The evaluation team used information in the tracking data to determine if measures were installed in disadvantaged communities, with support from the supplemental file "2024 EEP Business Participant DAC 1-30". The team deferred to the tracking data as this supplemental file did not contain disadvantaged community identifiers for measures in the Midstream CFS or BOC program paths.

Recommendation 17. Ensure the tracking data has enough information to properly identify if all measures are installed in disadvantaged communities for CFS projects.

Climate Zone

Finding 18. The evaluation team found the tracking data's Climate Zone column is blank for all Midstream CFS projects as well as several other projects in the other program paths. In these cases, the evaluation team verified a climate zone using an Illinois Zip Code and Climate Zone Mapping file[2] and the county information in the tracking data to inform verified savings as applicable. This has no impact on the realization rate.

Recommendation 18. Provide a climate zone for every project in the tracking data.

[2] Sourced from https://www.zipcodestogo.com/Illinois/.

Appendix A. Impact Analysis Methodology

Building Operator Certification

The impact evaluation team applied the algorithms from Measure 4.8.24 Building Operator Certification from IL-TRM v12.0. Guidehouse used information collected from the participants and internet research to determine the inputs into the IL-TRM algorithm. If the square footage managed by a participant exceeded 500,000 ft^2, savings were capped at 500,000 ft^2 per participant .Table A-1 shows the savings coefficients from IL-TRM v12.0, and they are used in Equation 1, Equation 2, and Equation 3 to verify the estimated annual energy savings.

Table A-1. Profile of Gross Impact Sample for Custom Projects

Savings Type	Variable Name	ValueUnit
Natural Gas	C_g	0.0046therms/ft^2/participant

Source: IL TRM V12.0, Measure 4.8.24

Equation 1. Natural Gas Energy Savings per Participant

$$\textit{Natural Gas Savings} = C_g \times \textit{Area (Minimum of participant } ft^2 \textit{ or 500,000 } ft^2\textit{)}$$

All Other Measures

Guidehouse calculated the verified gross savings for each measure type by conducting a review of the tracking data and applying the algorithms of IL TRM v12.0[3] and IL TRM v12.0 Errata Memo[4]. The evaluation team checked that savings inputs provided in the tracking data matched IL TRM v12.0 and that custom inputs were properly used. Then the tracking data and custom values used for the verified savings were adjusted from the tracking data, as necessary. The savings algorithms were applied to determine the verified savings of each measure. Verified gross realization rates are calculated by dividing the verified savings by the ex ante gross savings.

For most Food Service Equipment end use measures (applicable measures can be found in the Direct Install, Midstream CFS, and Prescriptive program paths), Guidehouse conducted an additional tracking data verification step. The evaluation team compared the tracking data values for these ENERGY STAR measures to the ENERGY STAR QPLs[5] by manufacturer and model number. Where the team found tracking data values and QPLs values disagreed, the evaluation team updated the tracking data using the QPL values. This approach aligns with Guidehouse's process for the ComEd and Peoples Gas and North Shore Gas evaluations.

Based on the SAG policy, the evaluation team assigned a NTG of 1.00 to all projects that were in disadvantaged communities (DAC) based on census tract and with consumption under 35,000 Therms.

[3] Available on the Illinois Stakeholder Advisory Group website: Illinois Statewide Technical Reference Manual Version 12.0 - Illinois Energy Efficiency Stakeholder Advisory Group Illinois Energy Efficiency Stakeholder Advisory Group

[4] Ibid

[5] Obtained from the Implementation Contractor for the 2024 calendar year: https://www.il-foodservicerebates.com/qualifying-equipment

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. 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 B-1. Verified Cost Effectiveness Inputs

Program Category	Program Path	Savings Category	DAC Project*	Units	Quantity	Effective Useful Life	Early Replacement Flag	Verified Gross Annual Water Savings (Gallons)	Ex Ante Gross Savings (Therms)	Verified Gross Savings (Therms)	Verified Net Savings (Therms)
Private	Building Operator Certification	BOC	FALSE	Participant	9	13.00	NO	0	13,036	15,298	15,298
Private	Business Optimization Program	Boiler Tune Up, Process	FALSE	Each	31	2.00	NO	0	169,317	169,317	155,772
Private	Business Optimization Program	Boiler Tune Up, Process	TRUE	Each	13	2.00	NO	0	42,382	58,551	58,551
Private	Business Optimization Program	Pipe Insulation	FALSE	Ln Ft	100	15.00	NO	0	1,045	1,045	961
Private	Business Optimization Program	Steam Trap, Dry Cleaner	FALSE	Each	201	6.00	NO	1,784,880	212,577	214,846	197,659
Private	Business Optimization Program	Steam Trap, Dry Cleaner	TRUE	Each	76	6.00	NO	674,880	80,377	81,235	81,235
Private	Business Optimization Program	Steam Trap, Industrial High Pressure	FALSE	Each	134	6.00	NO	6,807,314	816,818	822,923	757,089
Private	Business Optimization Program	Steam Trap, Industrial High Pressure	TRUE	Each	1	6.00	NO	46,078	5,507	5,557	5,557
Private	Business Optimization Program	Steam Trap, Industrial Medium Pressure	FALSE	Each	257	6.00	NO	2,991,073	345,882	354,701	326,325
Private	Business Optimization Program	Steam Trap, Industrial Medium Pressure	TRUE	Each	6	6.00	NO	40,997	4,630	4,812	4,812
Private	Direct Install	Faucet Aerator - Bath	FALSE	Each	380	10.00	NO	669,149	2,944	2,944	2,532
Private	Direct Install	Faucet Aerator - Bath	TRUE	Each	50	10.00	NO	30,694	135	135	135
Private	Direct Install	Faucet Aerator - Kitchen	FALSE	Each	2	10.00	NO	1,246	7	7	6
Private	Direct Install	Garage Door Hinge	FALSE	Each	169	20.00	NO	0	8,305	8,766	7,539
Private	Direct Install	Garage Door Hinge	TRUE	Each	33	20.00	NO	0	1,715	1,715	1,715
Private	Direct Install	Pre-Rinse Spray Valves	FALSE	Each	2	5.00	NO	54,288	396	396	340
Private	Direct Install	Showerheads	FALSE	Each	347	10.00	NO	590,728	3,722	3,722	3,201
Private	Direct Install	Showerheads	TRUE	Each	93	10.00	NO	158,322	997	997	997
Private	Midstream CFS	Automatic Conveyor Broiler	FALSE	Each	2	12.00	NO	0	5,952	5,952	4,762
Private	Midstream CFS	Combination Oven	FALSE	Each	10	12.00	NO	0	6,261	4,853	3,883
Private	Midstream CFS	Convection Oven	FALSE	Each	3	12.00	NO	0	690	684	547
Private	Midstream CFS	Conveyor Oven	FALSE	Each	21	12.00	NO	0	21,198	20,740	16,592
Private	Midstream CFS	Fryer	FALSE	Each	127	12.00	NO	0	87,916	94,065	75,252
Private	Midstream CFS	Griddle	FALSE	Each	15	12.00	NO	0	7,851	8,589	6,871
Private	Midstream CFS	Infrared Salamander Broiler	FALSE	Each	2	12.00	NO	0	480	480	384
Private	Midstream CFS	Kitchen Demand Ventilation Controls	FALSE	Each	12	20.00	NO	0	9,288	89,629	71,703
Private	Midstream CFS	Pasta Cooker	FALSE	Each	1	12.00	NO	0	1,380	1,380	1,104
Private	Midstream CFS	Rack Oven - Double Oven	FALSE	Each	1	12.00	NO	0	1,986	2,185	1,748
Private	Midstream CFS	Rotisserie Oven	FALSE	Each	1	12.00	NO	0	824	824	659
Private	Prescriptive	Boiler Tune Up, Process	FALSE	Each	3	2.00	NO	0	46,466	51,366	44,175
Private	Prescriptive	Boiler Tune Up, Space Heating	FALSE	Each	9	3.00	NO	0	50,809	50,809	43,696
Private	Prescriptive	Combination Oven	FALSE	Each	4	12.00	NO	0	2,019	1,946	1,673
Private	Prescriptive	Compressed Air Heat Recovery	FALSE	Each	2	15.00	NO	0	48,361	48,361	41,590
Private	Prescriptive	Fryer	FALSE	Each	45	12.00	NO	0	26,722	30,936	26,605
Private	Prescriptive	Fryer	TRUE	Each	6	12.00	NO	0	3,095	3,435	3,435
Private	Prescriptive	Grain Dryer Tune-Up	FALSE	Each	3	1.00	NO	0	39,906	39,906	34,319
Private	Prescriptive	Griddle	FALSE	Each	3	12.00	NO	0	652	1,481	1,274
Private	Prescriptive	High Efficiency Boiler	FALSE	Each	12	25.00	NO	0	17,296	22,696	19,519
Private	Prescriptive	High Efficiency Furnace	FALSE	Each	28	16.50	NO	0	8,998	9,212	7,922
Private	Prescriptive	High Efficiency Furnace	TRUE	Each	8	16.50	NO	0	2,675	2,689	2,689
Private	Prescriptive	Infrared Charbroiler	FALSE	Each	4	12.00	NO	0	2,827	2,827	2,431
Private	Prescriptive	Ozone Laundry	FALSE	Each	1	10.00	NO	358,065	18,854	18,606	16,001
Private	Prescriptive	Ozone Laundry	TRUE	Each	1	10.00	NO	719,949	37,411	37,411	37,411
Private	Prescriptive	Pipe Insulation	FALSE	Ln Ft	1,175	15.00	NO	0	4,412	4,412	3,794
Private	Prescriptive	Pre-Rinse Spray Valves	FALSE	Each	2	5.00	NO	60,091	475	438	377
Private	Prescriptive	Small Commercial Thermostat	FALSE	Each	3	11.00	NO	0	406	406	373

Program Category	Program Path	Savings Category	DAC Project*	Units	Quantity	Effective Useful Life	Early Replacement Flag	Verified Gross Annual Water Savings (Gallons)	Ex Ante Gross Savings (Therms)	Verified Gross Savings (Therms)	Verified Net Savings (Therms)
Private	Prescriptive	Steam Trap, Commercial	FALSE	Each	1	6.00	NO	1,371	152	161	139
Private	Prescriptive	Steam Trap, Commercial	TRUE	Each	86	6.00	NO	155,299	17,249	18,259	18,259
Private	Prescriptive	Steam Trap, Dry Cleaner	FALSE	Each	131	6.00	NO	690,171	82,199	83,076	71,445
Private	Prescriptive	Steam Trap, Dry Cleaner	TRUE	Each	54	6.00	NO	398,961	47,516	48,023	48,023
Private	Prescriptive	Steam Trap, Industrial High Pressure	FALSE	Each	75	6.00	NO	3,484,990	418,189	421,297	362,315
Private	Prescriptive	Steam Trap, Industrial High Pressure	TRUE	Each	19	6.00	NO	996,362	119,400	120,346	120,346
Private	Prescriptive	Steam Trap, Industrial Medium Pressure	FALSE	Each	80	6.00	NO	810,779	93,509	96,036	82,591
Private	Prescriptive	Steam Trap, Industrial Medium Pressure	TRUE	Each	5	6.00	NO	105,295	12,325	12,554	12,554
Private	Prescriptive	Water Heater	FALSE	Each	13	15.00	NO	0	779	1,787	1,537
Public	Building Operator Certification	BOC	FALSE	Participant	8	13.00	NO	0	14,116	12,537	12,537
Public	Business Optimization Program	Steam Trap, Industrial High Pressure	FALSE	Each	2	6.00	NO	92,155	11,015	11,114	10,225
Public	Business Optimization Program	Steam Trap, Industrial Medium Pressure	FALSE	Each	8	6.00	NO	54,662	6,173	6,415	5,902
Public	Direct Install	Faucet Aerator - Bath	FALSE	Each	166	10.00	NO	334,088	1,470	1,470	1,264
Public	Direct Install	Faucet Aerator - Bath	TRUE	Each	12	10.00	NO	18,453	81	81	81
Public	Direct Install	Faucet Aerator - Kitchen	FALSE	Each	7	10.00	NO	9,996	53	53	46
Public	Direct Install	Faucet Aerator - Kitchen	TRUE	Each	1	10.00	NO	1,538	8	8	8
Public	Direct Install	Garage Door Hinge	FALSE	Each	49	20.00	NO	0	1,334	2,412	2,075
Public	Direct Install	Pre-Rinse Spray Valves	FALSE	Each	2	5.00	NO	65,146	475	475	408
Public	Direct Install	Showerheads	FALSE	Each	7	10.00	NO	11,917	75	75	65
Public	Prescriptive	Boiler Chemical Descaling	FALSE	Each	2	6.00	NO	0	2,982	1,876	1,613
Public	Prescriptive	Boiler Tune Up, Process	FALSE	Each	1	2.00	NO	0	83	83	71
Public	Prescriptive	Boiler Tune Up, Process	TRUE	Each	5	2.00	NO	0	2,162	3,836	3,836
Public	Prescriptive	Boiler Tune Up, Space Heating	FALSE	Each	144	3.00	NO	0	325,813	325,813	280,200
Public	Prescriptive	Boiler Tune Up, Space Heating	TRUE	Each	10	3.00	NO	0	11,928	11,928	11,928
Public	Prescriptive	High Efficiency Boiler	FALSE	Each	45	25.00	NO	0	161,727	224,866	193,385
Public	Prescriptive	High Efficiency Boiler	TRUE	Each	17	25.00	NO	0	57,205	80,382	80,382
Public	Prescriptive	High Efficiency Furnace	FALSE	Each	30	16.50	NO	0	9,817	9,817	8,443
Public	Prescriptive	High Efficiency Furnace	TRUE	Each	4	16.50	NO	0	1,031	1,065	1,065
Public	Prescriptive	Pipe Insulation	FALSE	Ln Ft	78	15.00	NO	0	49	49	42
Public	Prescriptive	Steam Trap, Commercial	FALSE	Each	11	6.00	NO	14,342	1,593	1,686	1,450
Public	Prescriptive	Steam Trap, Industrial High Pressure	FALSE	Each	14	6.00	NO	631,507	75,906	76,439	65,737
Public	Prescriptive	Steam Trap, Industrial Medium Pressure	FALSE	Each	41	6.00	NO	263,222	30,154	31,086	26,734
Public	Prescriptive	Water Heater	FALSE	Each	2	15.00	NO	0	79	102	87
Total or Weighted Average						**7.91**		**23,128,010**	**3,671,650**	**3,908,490**	**3,515,304**

Note: All savings estimating algorithms presented in the IL TRM v12.0 for the Building Operator Certification measure are for net savings. Therefore, this measure does not require an additional application of NTG value.
Based on SAG policy, participants in disadvantaged communities (DAC) based on their census tract and with consumption under 35,000 Therms are assigned a NTG of 1.00.
Source: Evaluation team analysis