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Ameren Illinois Company PY10 Net-to-Gross Ratios for the Energy Efficiency Portfolio (8-103/8-104)

FINAL

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CADMUS

NAVIGANT



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1. Business Programs

1.1 C&I Custom

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY1 (6/1/08-5/31/09)	Value Applied	0.77	N/A	Retrospective application	Customer self-report. 14 surveys completed from a population of 34. Basic method.	PY1 Evaluation
	NTG Research Results (available 11/30/09)	0.77	N/A			
PY2 (6/1/09-5/31/10)	Value Applied	0.69	N/A	Retrospective application	Customer self-report. 56 surveys completed from a population of 146. Enhanced method. Trade allies and key account executives called for 7 participants and their responses were factored in to the customer free ridership calculation.	PY2 Evaluation
	NTG Research Results (available 1/28/11)	0.69	N/A			
PY3 (6/1/10-5/31/11)	Value Applied	0.75	N/A	Retrospective application	Electric: Customer self-report. 47 surveys completed from a population of 125. Enhanced method. Trade allies and key account executives called for 5 participants and their responses were factored in to the customer free ridership calculation.	PY3 Evaluation
	NTG Research Results (available 12/19/11)	0.75	N/A			
PY4 (6/1/11-5/31/12)	Value Applied	0.69	0.69	<ul style="list-style-type: none">Program or Market change: NoNew Program: NoPrevious EM&V NTG exists: Yes	See PY2. Also supplemented by Staffing Grant participant interviews, new projects NTGR score used if higher than PY2 Recommended NTGR.	PY2 Evaluation
	NTG Research Results	No research performed				
PY5 (6/1/12-5/31/13)	Value Applied	0.75	0.81	<ul style="list-style-type: none">Program or Market change: NoNew Program: No	See PY3; also supplemented by Staffing Grant participant interviews (8 of 16, 81% of kWh savings), new NTGR score used if higher than PY3 Recommended NTGR. Affected 7 respondents and 11 custom projects.	PY3 Evaluation

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
				<ul style="list-style-type: none"> Previous EM&V NTG exists: Yes 		
	NTG Research Results (available 2/6/2014)	0.74	0.74	N/A	Customer self-report. 41 surveys completed from a population of 82. Enhanced method, however no respondents required interviews with trade allies or key account executives.	PY5 Evaluation
PY6 (6/1/13-5/31/14)	Value Applied	0.75	0.81	<ul style="list-style-type: none"> Program change: No Market change: No New Program: No Previous EM&V NTG exists: Yes 	See PY3 for Electric; Deemed Value for Gas. Also supplemented by Staffing Grant participant interviews, new projects NTGR score used if higher than PY3 Recommended NTGR.	PY3 Evaluation
	NTG Research Results (available – 3/11/2015)	N/A	0.83	N/A	Customer self-report. 8 surveys completed from a population of 24. Enhanced method, however no respondents required interviews with trade allies or key account executives.	PY6 Evaluation
PY7 (6/1/14-5/31/15)	Value Applied	0.75	0.74	<ul style="list-style-type: none"> Program change: No Market change: No New Program: No Previous EM&V NTG exists: Yes 	See PY5 for FR and participant SO	PY5 Evaluation
	NTG Research Results	No research performed				

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY8 (6/1/15-5/31/16)	Value Applied	0.75	0.83	<ul style="list-style-type: none"> Program or Market change: No New Program: No Previous EM&V NTG exists: Yes 	See PY5 for Electric & PY6 for Gas (FR and SO); See Section 1.7 for non-participant SO.	PY5 and PY6 Evaluations
	NTG Research Results	Core Custom: 0.82 New Construction Lighting: 0.82	Core Custom: 0.94 New Construction Lighting: 0.94	N/A	Customer self-report. 36 completed surveys from a population of 105 participants. Enhanced method, however no respondents required interviews with trade allies or key account executives.	PY8 Evaluation
PY9 (6/1/16-5/31/17)	Recommended	0.74	0.83	<ul style="list-style-type: none"> Program or Market change: No New Program: No Previous EM&V NTG exists: Yes 	See PY5 for Electric & PY6 for Gas (FR and SO); See Section 1.7 for non-participant SO.	PY5 and PY6 Evaluations
PY10 (1/1/18-12/31/18)	Recommended	Core Custom: 0.82 New Construction Lighting: 0.82	Core Custom: 0.94 New Construction Lighting: 0.94	<ul style="list-style-type: none"> Most recent AIC specific value available 	See PY8 Evaluation; See Section 1.7 for non-participant SO.	PY8 Evaluation

1.2 C&I Retro-Commissioning

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY1 (6/1/08-5/31/09)	Value Applied	1.0	N/A	Pilot with only 1 project.	Deemed	PY1 Evaluation
	NTG Research Results	N/A	N/A	No research conducted		
PY2 (6/1/09-5/31/10)	Value Applied	0.8	N/A	Retrospective application	AIC planning Value	PY2 Evaluation
	NTG Research Results	N/A	N/A	No research conducted		
PY3 (6/1/10-5/31/11)	Value Applied	0.58	N/A	Retrospective application	Customer self-report. 17 surveys completed from a population of 18 participant contacts. Basic method.	PY3 Evaluation
	NTG Research Results (available 04/01/12)	0.58	N/A			
PY4 (6/1/11-5/31/12)	Value Applied	0.95	0.95	Retrospective application	Customer self-report. 14 surveys completed from a population of 32 participants. Service Provider self-report. 9 surveys completed from a population of 12 participants. Enhanced method. Participant and Service Provider spillover researched.	PY4 Evaluation
	NTG Research Results (available 01/24/13)	0.95	0.95			
PY5 (6/1/12-5/31/13)	Value Applied	0.95	0.95	<ul style="list-style-type: none"> Program change: No Market change: Market evolving with service providers reaching outside of the program for work and increasing resources to deliver. Previous EM&V NTG exists: Yes 	See PY4	PY4 Evaluation

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
	NTG Research Results	N/A	N/A	No Research Conducted		
PY6 (6/1/13-5/31/14)	Value Applied	0.96	0.95	<ul style="list-style-type: none">Program change: NoMarket change: NoNew Program: NoPrevious EM&V NTG exists: Yes	See PY4; See Section 1.6 for electric non-participant SO.	PY4 Evaluation
	NTG Research Results (available – 3/12/2015)	0.92	0.91	N/A	Customer self-report. 6 surveys completed from a population of 26. See Section 1.6 for electric non-participant SO.	PY6 Evaluation
PY7 (6/1/14-5/31/15)	Value Applied	0.96	0.95	<ul style="list-style-type: none">Program change: NoMarket change: NoNew Program: NoPrevious EM&V NTG exists: Yes	See PY4; See Section 1.6 for electric non-participant SO.	PY4 Evaluation
	NTG Research Results	No research performed				
PY8 (6/1/15-5/31/16)	Value Applied	0.92	0.91	<ul style="list-style-type: none">Previous EM&V NTG exists: Yes	See PY6 for FR and participant SO; See Section 1.6 for non-participant SO.	PY6 Evaluation
	NTG Research Results	No research performed				
PY9 (6/1/16-5/31/17)	Recommended	0.91	0.91	<ul style="list-style-type: none">Previous EM&V NTG exists: Yes	See PY6 for FR and participant SO; See Section 1.6 for electric non-participant SO (updated in PY7).	PY6 Evaluation
PY10 (1/1/18-12/31/18)	Recommended	0.91	0.91	<ul style="list-style-type: none">Previous EM&V NTG exists: Yes	See PY6 for FR and participant SO; See Section 1.7 for electric non-participant SO (updated in PY7).	PY6 Evaluation

1.3 C&I Standard

The C&I Standard Program has a number of distinct components as outlined in this section. The evaluation team has recommended values for each in Sections 1.3.1, 1.3.2, 1.3.3, and 1.3.4.

1.3.1 Core Standard Program

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY1 (6/1/08-5/31/09)	Value Applied	0.62	N/A	Retrospective application	Customer self-report. 17 surveys completed from a population of 34. Basic method.	PY1 Evaluation
	NTG Research Results (available 11/30/09)	0.62	N/A			
PY2 (6/1/09-5/31/10)	Value Applied	0.78 (program-level)	N/A	Retrospective application	Customer self-report. 80 surveys completed from a population of 414. Enhanced method. Trade allies and key account executives called for 7 participants and their responses factored in to FR.	PY2 Evaluation
	NTG Research Results (available 1/28/11)	Lighting – 0.78 Grocery – 0.76 HVAC – 0.47 Motors – 0.63 Refrigeration – 0.90 (0.76 program-level)	N/A			
PY3 (6/1/10-5/31/11)	Value Applied	0.75 (program-level) DI Aerators – 0.76	N/A	Retrospective application	Customer self-report. 178 Standard surveys completed from a population of 913. Enhanced method. Trade allies and key account executives called for 3 participants.	PY3 Evaluation
	NTG Research Results (available 12/19/11)	Lighting – 0.76 Agriculture – 0.76 HVAC – 0.78 Motors – 0.76 Refrigeration – 0.82 (0.75 program-level)	N/A			
PY4 (6/1/11-5/31/12)	Value Applied	0.76 (program-level) 0.80 Direct Install	0.76 (program-level) 0.80 Direct Install	No program or market change	See PY2; Updated NTGRs for Staffing Grant participants	PY2 Evaluation
	NTG Research Results	Lighting – 0.62 Agriculture – 0.76 HVAC – 0.43 Motors – 0.80 Refrigeration – 0.83 Kitchen – 0.54	HVAC – 0.60 Kitchen – 0.53 Water Heater – 0.73	N/A	Customer self-report. 195 Standard surveys completed from a population of 933 for Core. Enhanced method utilizing 2 interviews with	PY4 Evaluation

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					key account executives and trade allies.	
PY5 (6/1/12-5/31/13)	Value Applied	0.75 (program-level)	0.75 (program-level)	No program or market change	See PY3; Updated NTGRs for Staffing Grant participants	PY3 Evaluation
	NTG Research Results (available 2/6/2014)	Lighting – 0.77	Steam Trap – 0.90	N/A	Customer self-report method. Lighting surveys (n=68) completed from a population of 560 contacts and steam traps (n=6) completed from a population of 21 contacts. Enhanced method utilizing interviews with trade allies.	PY5 Evaluation
PY6 (6/1/13-5/31/14)	Value Applied	Lighting – 0.62 Agriculture – 0.76 HVAC – 0.43 Motors – 0.80 Refrigeration – 0.83 Kitchen – 0.54	HVAC – 0.60 Kitchen – 0.53 Water Heater – 0.73	No program or market change	See PY4	PY4 Evaluation
	NTG Research Results	No research conducted				
PY7 (6/1/14-5/31/15)	Value Applied	Lighting – 0.77 HVAC – 0.43 Motors – 0.80 Specialty – 0.82	Steam Trap – 0.90 HVAC – 0.60 Specialty – 0.70	No program or market change	See PY5 for lighting and steam traps, and PY4 for other measures	PY4 and PY5 Evaluations
	NTG Research Results	Lighting – 0.78 HVAC – 0.56 Leak Survey – 0.70 Specialty – 0.85 VFD – 0.83	Steam Trap – 0.61 HVAC – 0.49 Specialty – 0.68	N/A	Customer self-report method. Lighting interviews (n=70) completed from a population of 638 contacts. Remaining interviews (n=65) completed as attempted census by end-use from population of 204 contacts.	PY7 Evaluation
PY8 (6/1/15-5/31/16)	Value Applied	Lighting – 0.78 HVAC – 0.44 Motors – 0.81	Steam Trap – 0.90 HVAC – 0.80 Specialty – 0.90	Previous EM&V NTG exists	PY5 and PY4 values with NPSO included.	PY4 and PY5 Evaluations

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		Specialty – 0.83				
	NTG Research Results	No research conducted				
PY9 (6/1/16-5/31/17)	Recommended	Lighting – 0.78 HVAC – 0.56 Leak Survey – 0.70 Specialty – 0.85 VFD – 0.83	Steam Trap – 0.61 HVAC – 0.49 Specialty – 0.68	Most recent AIC specific value	See PY7; See Section 1.7 for non-participant SO (updated in PY7).	PY7 Evaluation
PY10 (1/1/18-12/31/18)	Recommended	Lighting – 0.78 HVAC – 0.56 Leak Survey – 0.70 Specialty – 0.85 VFD – 0.83	Steam Trap – 0.61 HVAC – 0.49 Specialty – 0.68	Most recent AIC specific value	See PY7; See Section 1.7 for non-participant SO (updated in PY7).	PY7 Evaluation

1.3.2 Online Store

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY1 (6/1/08-5/31/09)	Value Applied	N/A – Not offered				
PY2 (6/1/09-5/31/10)	Value Applied	0.80	N/A	Initial launch and limited participation	Deemed planning value	AIC
	NTG Research Results (available 11/30/09)	0.80	N/A			
PY3 (6/1/10-5/31/11)	Value Applied	0.64	N/A	Retrospective application	Customer self-report. 88 surveys completed from a population of 17,596. Basic method.	PY3 Evaluation
	NTG Research Results (available 11/30/09)	0.64	N/A			
PY4 (6/1/11-5/31/12)	Value Applied	0.80	N/A	No program or market change	See PY2	PY2 Evaluation
	NTG Research Results (available 11/30/09)	0.83	N/A	Expansion of target population for participation	Customer self-report. 213 surveys from the Online Store population of 24,623	PY4 Evaluation
PY5 (6/1/12-5/31/13)	Value Applied	0.64	N/A	No program or market change	See PY3	PY3 Evaluation
	NTG Research Results	No research conducted				

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY6 (6/1/13-5/31/14)	Value Applied	0.83	N/A	Updated IL value available	See PY4	PY4 Evaluation
	NTG Research Results	No research conducted				
PY7 (6/1/14-5/31/15)	Value Applied	0.83	N/A	No program or market change	See PY4	PY4 Evaluation
	NTG Research Results	No research conducted				
PY8 (6/1/15-5/31/16)	Value Applied	0.83	N/A	Previous EM&V NTG exists	See PY4	PY4 Evaluation
	NTG Research Results	0.83	N/A	N/A	Customer self-report. 131 surveys from a population of 1,333.	PY8 Evaluation
PY9 (6/1/16-5/31/17)	Recommended	0.83	N/A	Previous EM&V NTG exists	See PY4	PY4 Evaluation
PY10 (1/1/18-12/31/18)	Recommended	0.83	N/A	Most recent AIC specific value	See PY8 and Section 1.7 for non-participant SO (updated in PY7).	PY8 Evaluation

1.3.3 Green Nozzles

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY1 (6/1/08-5/31/09)	Value Applied	N/A – Not offered				
PY2 (6/1/09-5/31/10)	Value Applied	N/A – Not offered				
PY3 (6/1/09-5/31/10)	Value Applied	N/A – Not offered				
PY4 (6/1/11-5/31/12)	Value Applied	0.92	0.89	Retrospective application	Customer self-report. 101 surveys from a population of 514 for Green Nozzles	PY4 Evaluation
	NTG Research Results	0.92	0.89			
PY5 (6/1/12-5/31/13)	Value Applied	0.92	0.89	Updated IL value available	See PY4	PY4 Evaluation
	NTG Research Results	No research conducted*				

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY6 (6/1/13-5/31/14)	Value Applied	0.92	0.89	No program or market change	See PY4	PY4 Evaluation
	NTG Research Results	No research conducted*				
PY7 (6/1/14-5/31/15)	Value Applied	0.92	0.89	No program or market change	See PY4	PY4 Evaluation
	NTG Research Results	No research conducted*				
PY8 (6/1/15-5/31/16)	Value Applied	0.92	0.89	Previous EM&V NTG exists	See PY4	PY4 Evaluation
	NTG Research Results	No research conducted*				
PY9 (6/1/16-5/31/17)	Recommended	0.92	0.89	Previous EM&V NTG exists	See PY4	PY4 Evaluation
PY10 (1/1/18-12/31/18)	Recommended	0.92	0.89	Previous EM&V NTG exists	See PY4	PY4 Evaluation

* Note: Research has not been conducted due to the very limited activity within this program component.

1.3.4 Midstream Lighting (Instant Incentives)

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY8 (6/1/15-5/31/16)	Value Applied	68% CFLs 77% LEDs	N/A	Most recent Illinois specific value available.	Customer self-report approach based on the end-user telephone surveys of 282 participants and in-depth interviews with 9 BILD end-user participants. 2. Supplier self-reports based on in-depth interviews with program lighting distributors.	ComEd PY6 BILD Evaluation
	NTG Research Results	77% (Linear LEDs, Specialty LEDs, Standard LEDs, CFLs, and Occupancy Sensors)	N/A	N/A	Customer self-report approach based on participant telephone surveys with 27 participants out a population of 273.	PY8 Evaluation
PY9 (6/1/16-5/31/17)	Recommended	64% CFLs 78% LEDs	N/A	Most recent Illinois specific value available at the time recommendations were due.	Customer self-report approach based on the end-user telephone surveys of 224 participants, web surveys with 159 participants, and in-depth interviews with 5 BILD end-user participants. Supplier self-reports based on web surveys with 61 program lighting distributors.	ComEd PY7 BILD Evaluation
PY10	Recommended	77% (Linear LEDs, Specialty LEDs,	N/A	Most recent AIC specific value	See PY8 Evaluation	

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
(1/1/18-12/31/18)		Standard LEDs, CFLs, and Occupancy Sensors)				PY8 Evaluation

1.4 Commercial New Construction

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY10 (1/1/18-12/31/18)	Recommended	0.60	0.60	Best Available Secondary Data	Secondary research	PY8 ComEd BNC Research

1.5 Combined Heat and Power

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY8 (6/1/15-5/31/16)	Recommended	N/A – Project Specific	N/A – Project Specific	<ul style="list-style-type: none"> New Program: Yes Previous EM&V NTG exists: No 	The evaluation team will determine NTGRs on a per-project basis upfront. The value assigned to each project will be valid for the life of that project.	Annual Evaluation Efforts
PY9 (6/1/16-5/31/17)	Recommended	N/A – Project Specific	N/A – Project Specific	<ul style="list-style-type: none"> New Program: No Previous EM&V NTG exists: No 	The evaluation team will determine NTGRs on a per-project basis upfront. The value assigned to each project will be valid for the life of that project.	Annual Evaluation Efforts
PY10 (1/1/18-12/31/18)	Recommended	N/A – Project Specific	N/A – Project Specific	<ul style="list-style-type: none"> New Program: No Previous EM&V NTG exists: No 	The evaluation team will determine NTGRs on a per-project basis upfront. The value assigned to each project will be valid for the life of that project.	Annual Evaluation Efforts

1.6 Small Business

1.6.1 Small Business Direct Install

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY6 (6/1/13-5/31/14)	Value Applied	0.90	N/A	IPA Program	AIC Planning Value	Deemed
	NTG Research Results (available 3/1/14)	0.89	N/A	N/A	Participant self-report conducted in PY6. Surveyed 70 contacts from a population of 445 participants.	PY6 Evaluation
PY7 (6/1/14-5/31/15)	Value Applied	0.90	N/A	IPA Program	AIC Planning Value	Deemed
	NTG Research Results	No research conducted				
PY8 (6/1/15-5/31/16)	Value Applied	0.89	N/A	• Previous EM&V NTGR Exists	See PY6	PY6 Evaluation
	NTG Research Results (available 12/1/16)	0.96	N/A	N/A	Customer self-report. 77 completed interviews out of a population of 649 participants.	PY8 Evaluation
PY9 (6/1/16-5/31/17)	Recommended	0.89	N/A	• Previous EM&V NTGR Exists	See PY6	PY6 Evaluation
PY10 (1/1/18-12/31/18)	Recommended	0.96	0.96	• Most recent AIC specific value available	See PY8	PY8 Evaluation

1.6.2 Small Business Refrigeration

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY8 (6/1/15-5/31/16)	Value Applied	0.86	N/A	Some previous EM&V NTGR results exists	Combined refrigeration NTG results from the PY4 and PY6 C&I Standard evaluation	PY4 and PY6 Standard Evaluations
	NTG Research Results	No research conducted				
PY9 (6/1/16-5/31/17)	Recommended	0.86	N/A	Some previous EM&V NTGR results exists	See PY8	PY4 and PY6 Standard Evaluations
PY10 (1/1/18-12/31/18)	Recommended	0.86	0.86	Some previous EM&V NTGR results exists	See PY8	PY4 and PY6 Standard Evaluations

1.6.3 Exterior Lighting

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY10 (1/1/18-12/31/18)	Recommended	0.96	N/A	Based on AIC-specific values for a similar program	See SBDI PY8 NTG research	PY8 SBDI Evaluation

1.6.4 Small Business Linear LED Lighting

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY10 (1/1/18-12/31/18)	Recommended	0.96	N/A	Based on AIC-specific values for a similar program	See SBDI PY8 NTG research	PY8 SBDI Evaluation

1.6.5 Small Business Lit Signage

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY10 (1/1/18-12/31/18)	Recommended	0.96	N/A	Based on AIC-specific values for a similar program	See SBDI PY8 NTG research	PY8 SBDI Evaluation

1.6.6 Small Business Whole Building

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY10 (1/1/18-12/31/18)	Recommended	Refrigeration Measures - 0.86 All Other Measures - 0.96	Refrigeration Measures - 0.86 All Other Measures - 0.96	Based on AIC-specific values	Combined refrigeration NTG results from the PY4 and PY6 C&I Standard evaluation, as well as PY8 SBDI evaluation	PY8 SBDI Evaluation & PY4 and PY6 Standard Evaluations

1.6.7 Private Sector Enhanced HVAC Optimization

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY10 (1/1/18-12/31/18)	Recommended	0.96	0.96	Based on AIC-specific values for a similar program	See SBDI PY8 NTG research	PY8 SBDI Evaluation

1.6.8 Public Sector Enhanced HVAC Optimization

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY10 (1/1/18-12/31/18)	Recommended	0.96	0.96	Based on AIC-specific values for a similar program	See SBDI PY8 NTG research	PY8 SBDI Evaluation

1.6.9 Demand-Controlled Ventilation

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY8 (6/1/15-5/31/16)	Recommended	0.89	0.89	There is no viable secondary data for this measure. However, based on the team's knowledge of the measure, we believe the NTGR used in AIC's analysis is reasonable	N/A – Planning Value	Deemed
PY9 (6/1/16-5/31/17)	Recommended	0.89	0.89	There is no viable secondary data for this measure. However, based on the team's knowledge of the measure, we believe the NTGR used in AIC's analysis is reasonable	N/A – Planning Value	Deemed
PY10 (1/1/18-12/31/18)	Recommended	0.89	0.89	There is no viable secondary data for this measure. However, based on the team's knowledge of the measure, we believe the NTGR used in AIC's analysis is reasonable	N/A – Planning Value	Deemed

1.7 Portfolio-Level Non-Participant Spillover

Program Year	Type	Non-Participant Spillover	Justification	Method	Source
PY7 (6/1/14-5/31/15)	Value Applied	Electric - 0.01	<ul style="list-style-type: none"> Based on IL specific primary data collection 	<p>During the PY5 Standard Evaluation, we examined spillover using responses to the non-participant telephone survey, and found that 1.2% of the decision-makers took action and attributed it to the ActOnEnergy Business Program. Overall, we completed surveys with 251 respondents from a sample frame of 5,500. We conducted a similar study during PY3 and completed surveys with 245 respondents.</p> <p>For both studies, we developed estimates of the savings associated with these measures based on an engineering analysis of participant survey responses, as well as follow-up interviews performed by engineering staff. Based on the information gathered, we were able to perform engineering-based calculations or use the Statewide TRM to calculate savings. The most common type of equipment installed outside the program was efficient lighting, followed by water heating and cooling equipment.</p>	PY5 and PY3 Evaluations
	NTR Research Results	0.00	N/A	During the PY7 Standard Evaluation, we examined spillover using responses to the non-participant telephone survey, and found that none of the interviewed customers took un-incented energy efficient actions and attributed them to the Ameren Illinois Business Program.	PY7 Evaluation
PY8 (6/1/15-5/31/16)	Value Applied	Electric - 0.01	<ul style="list-style-type: none"> Based on IL specific primary data collection 	See PY7 value applied	PY5 and PY3 Evaluations
	NTR Research Results	No research performed			
PY9 (6/1/16-5/31/17)	Recommended	Electric - 0.00	<ul style="list-style-type: none"> Based on IL specific primary data collection 	See PY7 NTG research results	PY7 Evaluation
PY10 (1/1/18-12/31/18)	Recommended	Electric - 0.00	<ul style="list-style-type: none"> Based on IL specific primary data collection 	See PY7 NTG research results	PY7 Evaluation

2. Residential Programs

2.1 Appliance Recycling

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY1 (6/1/08-5/31/09)	Value Applied	Refrigerator 0.51 Freezer 0.53	N/A	Retrospective application	Customer self-report. 93 surveys completed from a population of 2,876.	PY1 Evaluation
	NTG Research Results (available 09/2009)	Refrigerator 0.51 Freezer 0.53	N/A			
PY2 (6/1/09-5/31/10)	Value Applied	Refrigerator 0.79 Freezer 0.82 Room Air Conditioner 1.0	N/A	Retrospective application	Customer self-report. 159 surveys completed from a population of 11,211.	PY2 Evaluation
	NTG Research Results (available 9/2010)	Refrigerator 0.79 Freezer 0.82 Room Air Conditioner 1.0	N/A			
PY3 (6/1/10-5/31/11)	Value Applied	Refrigerator 0.79 Freezer 0.82 Room Air Conditioner 1.0	N/A	<ul style="list-style-type: none">Program or Market change: NoNew Program: NoPrevious EM&V NTG exists: Yes	See PY2	PY2 Evaluation
	NTG Research Results	N/A	N/A	No research conducted		
PY4 (6/1/11-5/31/12)	Value Applied	Refrigerator 0.64 Freezer 0.65 Room Air Conditioner 1.0	N/A	Retrospective application	Customer self-report. 141 surveys completed from a population of 14,232.	PY4 Evaluation not including induced replacement
	NTG Research Results (available 02/2013)	Refrigerator 0.64 Freezer 0.65 Room Air Conditioner 1.0	N/A			
PY5 (6/1/12-5/31/13)	Value Applied	Refrigerator 0.79 Freezer 0.82 Room Air Conditioner 1.0	N/A	<ul style="list-style-type: none">Program change: NoMarket change: NoNew Program: NoPrevious IL EM&V NTG exists: Yes	See PY2	PY2 Evaluation

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
	NTG Research Results (available 11/2013)	Refrigerator 0.56 Freezer 0.62 Room Air Conditioner 1.0	N/A	N/A	Customer self-report. 140 refrigerator surveys completed from population of 8,780; 70 freezer surveys from population of 2,899	PY5 Evaluation
PY6 (6/1/13-5/31/14)	Value Applied	Refrigerator 0.63 Freezer 0.63 Room Air Conditioner 1.0	N/A	<ul style="list-style-type: none"> Program change: No Market change: No New Program: No Previous IL EM&V NTG exists: Yes 	See PY4; PY5 evaluation for induced replacement	PY4 & PY5 Evaluations
	NTG Research Results (available – 12/2014)	Refrigerator 0.52 Freezer 0.62	N/A	N/A	Customer self-report. 140 surveys completed from population of 9,260	PY6 Evaluation
PY7 (6/1/14-5/31/15)	Value Applied	Refrigerator 0.56 Freezer 0.62 Room Air Conditioner 0.50	N/A	<ul style="list-style-type: none"> Program change: No Market change: No New Program: No Previous IL EM&V NTG exists: Yes 	See PY5 for freezers and refrigerators; AC units from PY5 ComEd evaluation	PY5 Evaluation (AIC and ComEd)
	NTG Research Results	No research conducted				
PY8 (6/1/15-5/31/16)	Value Applied	Refrigerator 0.52 Freezer 0.62 Room Air Conditioner 0.50	N/A	<ul style="list-style-type: none"> Program change: No Market change: No New Program: No Previous IL EM&V NTG exists: Yes 	See PY6. AC units from PY5 ComEd evaluation	PY6 Evaluation & PY5 ComEd Evaluation
	NTG Research Results	No research conducted				
PY9 (6/1/16-5/31/17)	Recommended	Refrigerator 0.52 Freezer 0.62	N/A	<ul style="list-style-type: none"> Program change: No Market change: No New Program: No Previous IL EM&V NTG exists: Yes 	See PY6 NTG research	PY6 Evaluation
PY10 (1/1/18-12/31/18)	Recommended	Refrigerator 0.52 Freezer 0.62	N/A	<ul style="list-style-type: none"> Program change: No Market change: No Previous IL EM&V NTG exists: Yes 	See PY6 NTG research	PY6 Evaluation

2.2 Behavioral Modification

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY1	No Program					
PY2	No Program					
PY3 (6/1/10-5/31/11)	Value Applied	N/A	N/A	• Net savings determined through billing analysis	Billing analysis	N/A
PY4 (6/1/11-5/31/12	Value Applied	N/A	N/A	• Net savings determined through billing analysis	Billing analysis	N/A
PY5 (6/1/12-5/31/13)	Value Applied	N/A	N/A	• Net savings determined through billing analysis	Billing analysis	N/A
PY6 (6/1/13-5/31/14)	Value Applied	N/A	N/A	• Net savings determined through billing analysis	Billing analysis	N/A
PY7 (6/1/14-5/31/15)	Value Applied	N/A	N/A	• Net savings determined through billing analysis	Billing analysis	N/A
PY8 (6/1/15-5/31/16)	Value Applied	N/A	N/A	• Net savings determined through billing analysis	Billing analysis	N/A
PY9 (6/1/16-5/31/17)	Recommended	N/A	N/A	• Net savings determined through billing analysis	Billing analysis	N/A
PY10 (1/1/18-12/31/18)	Recommended	N/A	N/A	• Net savings determined through billing analysis	Billing analysis	N/A

2.3 Community LED Distribution

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY10 (1/1/18-12/31/18)	Recommended	1.00	N/A	Best available secondary data	N/A – Planning Value	2013 Ameren Missouri Evaluation

2.4 Energy Efficiency Kits

2.4.1 School Efficiency Kits

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY1 – PY5	No program					
PY6 (6/1/13-5/31/14)	Value Applied	CFLs - 0.71 Showerheads - 0.77 Faucet aerators - 0.46 Water heater temp adjustment - 0.46	N/A	<ul style="list-style-type: none">Similar to IPA program for rural kits	N/A - Deemed	Docket 12-0544 (IPA filing)
	NTG Research Results	No research conducted				
PY7 (6/1/14-5/31/15)	Value Applied	CFLs - 0.85 Showerheads - 0.95 Faucet aerators - 1.00 Hot water card thermometer – 1.00	Faucet aerator – 1.00 Showerhead – 0.95 Hot water card thermometer – 1.00	<ul style="list-style-type: none">New Program: NoPrevious EM&V NTG exists: No	Secondary research: 2013 unpublished Midwest utility's evaluation of a very similar program (participant survey, n=91).	Secondary research
	NTG Research Results	No research conducted				
PY8 (6/1/15-5/31/16)	Value Applied	CFLs - 0.83 Showerheads - 1.05 Faucet aerators - 1.04 Water heater Setback – 1.00	Showerheads - 1.05 Faucet aerators - 1.04 Water heater Setback – 1.00	<ul style="list-style-type: none">New Program: NoPrevious EM&V NTG exists: No	This value is based on the average of results from three similar programs (NIPSCO, Nicor Ryder 29, and Nicor Gas GPY1), and is consistent with ComEd values.	Secondary research
	NTG Research Results	No research conducted				
PY9 (6/1/16-5/31/17)	Recommended	CFLs - 0.83 Showerheads - 1.05 Faucet aerators - 1.04 Water heater Setback – 1.00	Showerheads 1.05 Faucet aerators 1.04 Water Heater Setback 1.00	<ul style="list-style-type: none">New Program: NoPrevious EM&V NTG exists: No	Water Heater Setback: Secondary research All others: Avg. of values from similar programs. See PY8.	Secondary research

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY10 (1/1/18-12/31/18)	Recommended	CFLs - 0.83 Showerheads - 1.05 Faucet aerators - 1.04 Water heater Setback - 1.00	Showerheads 1.05 Faucet aerators 1.04 Water Heater Setback 1.00	<ul style="list-style-type: none"> New Program: No Previous EM&V NTG exists: No 	Water Heater Setback: Secondary research All others: Avg. of values from similar programs. See PY8.	Secondary research

2.4.2 Moderate Income Kits

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY8 (6/1/15-5/31/16)	Value Applied	1.0	1.0	Consensus reached between ICC and AIC that program design merits NTGR of 1.0	N/A - Deemed	Deemed
PY9 (6/1/16-5/31/17)	Recommended	1.0	1.0	Consensus reached between ICC and AIC that program design merits NTGR of 1.0	N/A - Deemed	Deemed
PY10 (1/1/18-12/31/18)	Recommended	1.0	1.0	Consensus reached between ICC and AIC that program design merits NTGR of 1.0	N/A - Deemed	Deemed

2.4.3 Rural Efficiency Kits

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY1 – PY5	N/A - No program					
PY6 (6/1/13-5/31/14)	Value Applied	CFLs 0.71 Showerheads 0.77 Faucet aerators 0.46 Water heater temp adjustment 0.46	N/A	• IPA Program	N/A - Deemed	Docket 12-0544 (IPA filing)
	NTG Research Results	No research conducted				
PY7 (6/1/14-5/31/15)	Value Applied	CFLs - 0.85 Showerheads - 0.95 Faucet aerators - 1.00 Water heater temperature adj. - 1.00	N/A	Not a new Program, but no previous EM&V NTG exists	Secondary research: 2013 unpublished Midwest utility's evaluation of a very similar program (participant survey, n=91).	Secondary research
	NTG Research Results (available 1/7/2016)	14-watt CFLs – 0.63 23-watt CFLs – 0.54 1.75gpm Showerhead – 0.92 1.0gpm Bath F. Aerator – 1.08 2.0gpm Kitchen F. Aerator – 0.99 Hot Water Temp Card Therm. – 1.13	1.75gpm Showerhead – 0.83 1.0gpm Bath F. Aerator – 0.99 2.0gpm Kitchen F. Aerator – 0.90 Hot Water Temp Card Therm. – 1.04	N/A	Customer self-report method. 70 interviews completed from a population of 9,781 contacts.	PY7 Evaluation
PY8 (6/1/15-5/31/16)	Value Applied	CFLs - 0.85 Showerheads - 0.95 Faucet aerators - 1.00 Water heater temp adj. - 1.00	N/A	Not a new Program, but no previous EM&V NTG exists	See PY7 value applied	Secondary research
	NTG Research Results	No research conducted				
PY9 (6/1/16-5/31/17)	Recommended	14-watt CFLs – 0.63 23-watt CFLs – 0.54 1.75gpm Showerhead – 0.92 1.0gpm Bath. Faucet Aerator – 1.08 2.0gpm Kitchen Faucet Aerator – 0.99 Hot Water Temp Card Therm. – 1.13	1.75gpm Showerhead – 0.83 1.0gpm Bath. Faucet Aerator – 0.99 2.0gpm Kitchen F. Aerator – 0.90 Hot Water Temp Card Therm. – 1.04	Most recent AIC values available	See PY7 NTG research results	PY7 Evaluation
PY10 (1/1/18-12/31/18)	Recommended	14-watt CFLs – 0.63 23-watt CFLs – 0.54 1.75gpm Showerhead – 0.92	1.75gpm Showerhead – 0.83 1.0gpm Bath. Faucet Aerator – 0.99 2.0gpm Kitchen F. Aerator – 0.90	Most recent AIC values available	See PY7 NTG research results	PY7 Evaluation

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
		1.0gpm Bath. Faucet Aerator – 1.08 2.0gpm Kitchen Faucet Aerator – 0.99 Hot Water Temp Card Therm. – 1.13	Hot Water Temp Card Therm. – 1.04			

2.4.4 Elementary Education Kits

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY10 (1/1/18-12/31/18)	Recommended	LEDs – 0.83 Showerheads – 1.05 Faucet Aerators – 1.04 Water Heater Setback – 1.00 Other Non-Lighting Measures – 1.00	Showerheads – 1.05 Faucet Aerators – 1.04 Water Heater Setback – 1.00 Other Non-Lighting Measures – 1.00	No Illinois-specific value available	Avg. of Values from Similar Programs (SAG consensus values for PY9 School Kits Program)	Secondary research

2.4.5 Online Assessment Kits

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY10 (1/1/18-12/31/18)	Recommended	LEDs – 0.70 Other Non-Lighting Measures – 0.90	Other Non-Lighting Measures – 0.90	No Illinois-specific values available for this delivery mode. This value is Illinois-specific, and unpublished evaluations of similar programs for another Midwestern utility indicate that this is a reasonable assumption.	Secondary research: Evaluation of an Online Kits Program offered by another Midwestern utility	Secondary research

2.4.6 LED Awareness Kits

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY10 (1/1/18-12/31/18)	Recommended	LEDs – 0.85	N/A	Delivery mode of this program is new, but is similar to a combination of existing programs	Avg. of values from similar programs	Combination of Rural Kits, School Kits, CFL Distribution, and Moderate Income Kits values

2.5 ENERGY STAR New Homes

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY1 (6/1/08-5/31/09)	Value Applied	N/A	N/A	No program		
	NTG Research Results					
PY2 (6/1/09-5/31/10)	Value Applied	N/A	N/A	No program		
	NTG Research Results					
PY3 (6/1/10-5/31/11)	Value Applied	0.80	0.80	<ul style="list-style-type: none">Program is a small percentage of the portfolio and does not justify EM&V dollars to estimate NTG.	N/A - Deemed	Deemed
	NTG Research Results	N/A	N/A	No research conducted		
PY4 (6/1/11-5/31/12)	Value Applied	0.80	0.80	<ul style="list-style-type: none">Program is a small percentage of the portfolio and does not justify EM&V dollars to estimate NTG.	N/A - Deemed	Deemed
	NTG Research Results	N/A	N/A	No research conducted		
PY5 (6/1/12-5/31/13)	Value Applied	0.80	0.80	<ul style="list-style-type: none">Program is a small percentage of the portfolio and does not justify EM&V dollars to estimate NTG.	N/A - Deemed	Deemed
	NTG Research Results	N/A	N/A	No research conducted		
PY6 (6/1/13-5/31/14)	Value Applied	0.80	0.80	<ul style="list-style-type: none">Program is a small percentage of the portfolio and does not justify EM&V dollars to estimate NTG.	N/A - Deemed	Deemed
	NTG Research Results (available 12/12/2014)	Overall - 0.42 SF Only – 1.01	1.01	N/A	Customer self-report. Interviews with 5 builders out of around 42 builders who built single-family homes representing 27% of single- family homes.	PY6 Evaluation
PY7 (6/1/14-5/31/15)	Value Applied	0.80	0.80	<ul style="list-style-type: none">Program is a small percentage of the portfolio	N/A - Deemed	Deemed

Residential Programs

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
				and updated AIC specific value not yet available.		
	NTG Research Results	No research conducted				
PY8 (6/1/15-5/31/16)	Value Applied	Overall - 0.42 SF Only - 1.00	1.01	Most recent AIC specific value available	See PY6 NTG research results	PY6 Evaluation
	NTG Research Results	SF Homes -0.57	SF Homes -0.54	N/A	Customer self-report. Interviews with 13 builders out of 72 builders who participated in the program.	PY8 Evaluation
PY9 (6/1/16-5/31/17)	Recommended	SF Only - 1.00	1.01	Most recent AIC specific value available	See PY8 NTG research results	PY6 Evaluation
PY10 (1/1/18-12/31/18)	Recommended	SF Homes -0.57	SF Homes -0.54	Most recent AIC specific value available	See PY8 NTG research results	PY6 Evaluation

2.6 Home Efficiency Income Qualified

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY1	N/A (no program)					
PY2	N/A (no program)					
PY3	N/A (no program)					
PY4 (6/1/11-5/31/12)	Value Applied	1.0	1.0	• Other: Consensus reached between ICC and AIC that program design merits NTGR of 1.0	N/A - Deemed	Deemed
	NTG Research Results	No research performed				
PY5 (6/1/12-5/31/13)	Value Applied	1.0	1.0	• Other: Consensus reached between ICC and AIC that program design merits NTGR of 1.0	N/A - Deemed	Deemed
	NTG Research Results	No research performed				
PY6 (6/1/13-5/31/14)	Value Applied	1.0	1.0	• Other: Consensus reached between ICC and AIC that program design merits NTGR of 1.0	N/A - Deemed	Deemed
	NTG Research Results	No research performed				
PY7 (6/1/14-5/31/15)	Value Applied	1.0	1.0	• Other: Consensus reached between ICC and AIC that program design merits NTGR of 1.0	N/A - Deemed	Deemed
	NTG Research Results	No research performed				
PY8 (6/1/15-5/31/16)	Value Applied	1.0	1.0	• Other: Consensus reached between ICC and AIC that program design merits NTGR of 1.0	N/A - Deemed	Deemed
	NTG Research Results	No research performed				
PY9 (6/1/16-5/31/17)	Recommended	1.0	1.0	• Other: Consensus reached between ICC and AIC that program design merits NTGR of 1.0	N/A - Deemed	Deemed
PY10 (1/1/18-12/31/18)	Recommended	1.0	1.0	Other: Consensus reached between ICC and AIC that program design merits NTGR of 1.0	N/A - Deemed	Deemed

2.7 Home Efficiency Standard

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY1 (6/1/08-5/31/09)	Value Applied	0.76	N/A	Retrospective application	N/A – Deemed Value	Deemed
	NTG Research Results	N/A	N/A	No research conducted		
PY2 (6/1/09-5/31/10)	Value Applied	Insulation – 0.63 Air Sealing – 1.00 CFLs – 0.75 Aerators – 0.99 Showerheads – 0.97 Pipe Wrap – 0.93	N/A	Retrospective application	Customer self-report for CFLs, faucet aerators, low flow showerheads, pipe wrap; 72 surveys completed from a population of 2,987. Secondary research for insulation and air sealing.	PY2 Evaluation
	NTG Research Results (available 1/28/11)	Insulation – 0.63 Air Sealing – 1.00 CFLs – 0.75 Aerators – 0.99 Showerheads – 0.97 Pipe Wrap – 0.93	N/A			
PY3 (6/1/10-5/31/11)	Value Applied	Insulation – 0.92 Air Sealing – 0.99 CFLs – 0.75 Aerators – 0.99 Showerheads – 0.97 Pipe Wrap – 0.93	Insulation – 0.97 Air Sealing – 1.04 Aerators – 1.04 Showerheads – 1.01 Pipe Wrap – 0.98	Application of most recent research available	Deemed from PY2 for CFLs, faucet aerators, low flow showerheads, pipe wrap; Updated secondary research for insulation and air sealing.	PY2 Evaluation & Secondary Research
	NTG Research Results	Insulation – 0.92 Air Sealing – 0.99	Insulation – 0.97 Air Sealing – 1.04	Updated secondary research from PY2 to include spillover.		
PY4 (6/1/11-5/31/12)	Value Applied	Insulation – 0.88 Air Sealing – 0.88 CFLs – 0.97 Aerators – 0.86 Showerheads – 1.05	Insulation – 0.80 Air Sealing – 0.83 Aerators – 0.75 Showerheads – 0.82 T-Stat – 0.87*	Retrospective application	Customer self-report. 201 surveys completed from a population of 4,627.	PY4 Evaluation
		ESHP – 0.92	ESHP – 0.80		*The thermostat value is based on a	

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
	NTG Research Results	Insulation – 0.88 Air Sealing – 0.88 CFLs – 0.97 Aerators – 0.86 Showerheads – 1.05	Insulation – 0.80 Air Sealing – 0.83 Aerators – 0.75 Showerheads – 0.82 T-Stat – 0.87		deemed planning assumption given that there were insufficient participants to develop a new value.	
PY5 (6/1/12-5/31/13)	Value Applied	Insulation – 0.88 Air Sealing – 0.88 CFLs – 0.97 Aerators – 0.86 Showerheads – 1.05 ESHP – 0.92	Insulation – 0.80 Air Sealing – 0.83 Aerators – 0.75 Showerheads – 0.82 T-Stat – 0.87 ESHP – 0.80	<ul style="list-style-type: none"> No program change or market change Previous IL EM&V NTG exists: Yes 	See PY4	PY4 Evaluation
	NTG Research Results	No research performed				
PY6 (6/1/13-5/31/14)	Value Applied	Insulation – 0.88 Air Sealing – 0.88 CFLs – 0.97 Aerators – 0.86 Showerheads – 1.05	Insulation – 0.80 Air Sealing – 0.83 Aerators – 0.75 Showerheads – 0.82 T-Stat – 0.87	No program or market change	See PY4	PY4 Evaluation
	NTG Research Results	Insulation – 0.78 Air Sealing – 0.71 CFLs – 0.82 Aerators – 0.92 Showerheads – 0.86	Insulation – 0.78 Air Sealing – 0.72 Aerators – 0.94 Showerheads – 0.91 T-Stat – 0.87	N/A	Customer self-report. 238 surveys completed from a population of 2,997.	PY6 Evaluation
PY7 (6/1/14-5/31/15)	Value Applied	Insulation – 0.88 Air Sealing – 0.88 CFLs – 0.97 Aerators – 0.86 Showerheads – 1.05	Insulation – 0.80 Air Sealing – 0.83 Aerators – 0.75 Showerheads – 0.82 T-Stat – 0.87	Most recent AIC value available	See PY4	PY4 Evaluation
	NTG Research Results	No research conducted				
PY8 (6/1/15-5/31/16)	Value Applied	Insulation – 0.78 Air Sealing – 0.71 CFLs – 0.82 Aerators – 0.92 Showerheads – 0.86 T-Stat – 0.87	Insulation – 0.78 Air Sealing – 0.72 Aerators – 0.94 Showerheads – 0.91 T-Stat – 0.87	Most recent AIC value available	See PY6	PY6 Evaluation

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
	NTG Research Results	No research conducted				
PY9 (6/1/16-5/31/17)	Recommended	Insulation – 0.78 Air Sealing – 0.71 CFLs – 0.82 Aerators – 0.92 Showerheads – 0.86 T-Stat – 0.87	Insulation – 0.78 Air Sealing – 0.72 Aerators – 0.94 Showerheads – 0.91 T-Stat – 0.87	Most recent AIC value available	See PY6	PY6 Evaluation
PY10 (1/1/18-12/31/18)	Recommended	Insulation – 0.78 Air Sealing – 0.71 CFLs – 0.82 Aerators – 0.92 Showerheads – 0.86 T-Stat – 0.87	Insulation – 0.78 Air Sealing – 0.72 Aerators – 0.94 Showerheads – 0.91 T-Stat – 0.87	Most recent AIC value available	See PY6	PY6 Evaluation

2.8 HVAC

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY1 (6/1/08-5/31/09)	N/A - No program					
PY2 (6/1/09-5/31/10)	Value Applied	0.63	0.49	Retrospective application	Secondary research	Secondary research
	NTG Research Results	No research conducted				
PY3 (6/1/10-5/31/11)	Value Applied	0.59	Furnaces - 1.01 Boilers - 1.02	Retrospective application	Customer self-report for FR and SO: 150 surveys completed from a population of 14,127. Drop out contractor self-report for non-participant spillover, 20 surveys completed from a population of 165.	PY3 Evaluation
	NTG Research Results (available 2/2012)	0.59	Furnaces - 1.01 Boilers - 1.02			
PY4 (6/1/11-5/31/12)	Value Applied	0.59	Furnaces 1.01 Boilers 1.02	No market or program change. Previous IL EM&V NTG exists	See PY3	PY3 Evaluation
	NTG Research Results	N/A	N/A	No research conducted		
PY5 (6/1/12-5/31/13)	Value Applied	0.59	Furnaces 1.01 Boilers 1.02	No market or program change. Previous IL EM&V NTG exists	See PY3	PY3 Evaluation
	NTG Research Results (available 3/2013)	<SEER 16 CAC/HP (RB) - 0.69 SEER 16+ CAC/HP (RB) - 0.76 <SEER 16 CAC/HP (ER) - 0.57	97% Furnace or Boiler - 0.64 95% Furnace - 0.52	N/A	Participant customer surveys for free ridership	PY5 Evaluation

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
		SEER 16+ CAC/HP (ER) - 0.82 ECM - 0.70			and participant spillover (n=210), and a non-participant contractor survey (n=65) for non-participant spillover.	
PY6 (6/1/13-5/31/14)	Value Applied	0.59	Furnace 0.77 Boiler 0.79	<ul style="list-style-type: none"> Program change: Efficiency levels and incentive amounts have changed; gas measures dropped 	See PY3	PY3 Evaluation Electric/ Revised PY3 Deemed Results for Gas
	NTG Research Results (available 1/2014)	SEER < 16 CAC/HP (RB) - 0.60 SEER 16+ CAC/HP (RB) - 0.64 SEER < 16 CAC/HP (ER) - 0.63 SEER 16+ CAC/HP (ER) - 0.76 Brushless Motors - 0.76	N/A	N/A	PY6 Participant customer surveys for free ridership (n=204). PY5 nonparticipant contract surveys for spillover.	PY5/PY6 Evaluation
PY7 (6/1/14-5/31/15)	Value Applied	<SEER 16 CAC/HP (RB) - 0.65 SEER 16+ CAC/HP (RB) - 0.72 <SEER 16 CAC/HP (ER) - 0.53 SEER 16+ CAC/HP (ER) - 0.78 ECM - 0.66	N/A	Most recent values available for the program based on primary data.	See PY5	PY5 Evaluation*
	NTG Research Results	No research conducted				

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY8 (6/1/15-5/31/16)	Value Applied	SEER < 16 CAC/HP (RB) - 0.60 SEER 16+ CAC/HP (RB) - 0.64 SEER < 16 CAC/HP (ER) - 0.63 SEER 16+ CAC/HP (ER) - 0.76 Brushless Motors - 0.76	N/A	Most recent values available for the program based on primary data.	See PY6 for FR estimates; See PY5 for SO.	PY5 and PY6 Evaluations
	NTG Research Results	No research conducted				
PY9 (6/1/16-5/31/17)	Recommended	SEER < 16 CAC/HP (RB) 0.60 SEER 16+ CAC/HP (RB) 0.64 SEER < 16 CAC/HP (ER) 0.63 SEER 16+ CAC/HP (ER) 0.76 Brushless Motors 0.76	N/A	Most recent values available for the program based on primary data.	See PY6 for FR estimates; See PY5 for SO.	PY5 and PY6 Evaluations
PY10 (1/1/18-12/31/18)	Recommended	SEER < 16 CAC/HP (RB) [Ducted] 0.60 SEER 16+ CAC/HP (RB) [Ducted] 0.64 SEER < 16 CAC/HP (ER) [Ducted] 0.63 SEER 16+ CAC/HP (ER) [Ducted] 0.76 Brushless Motors 0.76	N/A	Most recent values available for the program based on primary data.	See PY6 for FR estimates; See PY5 for SO.	PY5 and PY6 Evaluations

* Note: PY5 values adjusted per SAG discussion in February 2013 revising spillover from 26% to 22%.

2.9 Lighting

2.9.1 CFLs

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY1 (6/1/08-5/31/09)	Value Applied	1.0	N/A	Retrospective application	Customer self-report of CFL purchase rates of AIC customers and customers in non-program areas.	PY1 Evaluation
	NTG Research Results (available 10/09)	1.0	N/A			
PY2 (6/1/09-5/31/10)	Value Applied	0.83	N/A	Retrospective application	Average NTG results from two methods: 1) supplier self-report surveys from 16 suppliers representing 97% of CFL sales and 2) a multistate model based on 92 site visits of random Ameren Illinois customers using CFLs compared to site visits in areas without programs or programs with different levels of maturity.	PY2 Evaluation
	NTG Research Results (available 10/09)	0.83	N/A			
PY3 (6/1/10-5/31/11)	Value Applied	0.83	N/A	Application of most recent research available	See PY2	PY2 Evaluation
	NTG Research Results	No research conducted				
PY4 (6/1/11-5/31/12)	Value Applied	0.83	N/A	<ul style="list-style-type: none">• Program or Market change: No• Previous EM&V NTG exists: Yes	See PY2	PY2 Evaluation
	NTG Research Results	No research conducted				
PY5 (6/1/12-5/31/13)	Value Applied	0.83	N/A	<ul style="list-style-type: none">• Program or Market change: No• Previous EM&V NTG exists: Yes	See PY2	PY2 Evaluation

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
	NTG Research Results (available 2/6/2014)	0.47	N/A	• N/A	Free-ridership estimated from in-store lighting customer interviews conducted in January 2013, and spillover estimated from 2012 in-home lighting study.	PY5 Evaluation
PY6 (6/1/13-5/31/14)	Value Applied	0.47	N/A	<ul style="list-style-type: none"> • Program or Market change: No • Previous EM&V NTG exists: Yes 	See PY5	PY5 Evaluation
	NTG Research Results (available – 12/23/14)	Std. CFL – 0.63 Spec. CFL – 0.72	N/A	N/A	Free-ridership estimated from in-store lighting customer interviews conducted in January 2014 (n=439), and spillover estimated from 2014 in-home lighting study (n=225).	PY6 Evaluation
PY7 (6/1/14-5/31/15)	Value Applied	0.47	N/A	Most recent value available for the program based on primary data	See PY5	PY5 Evaluation
	NTG Research Results	No research conducted				
PY8 (6/1/15-5/31/16)	Value Applied	Std. CFL – 0.63 Spec. CFL – 0.72	N/A	Most recent value available for the program based on primary data	See PY6	PY6 Evaluation
	NTG Research Results (available 11/1/2016)	All CFLs – 0.63	N/A	N/A	Free-ridership and spillover estimated from in-store lighting customer interviews (n=853).	PY8 Evaluation
PY9 (6/1/16-5/31/17)	Recommended	Std. CFL – 0.63 Spec. CFL – 0.72	N/A	Most recent value available for the program based on primary data	See PY6	PY6 Evaluation
PY10 (1/1/18-12/31/18)	Recommended	All CFLs – 0.63	N/A	Most recent AIC specific value available	See PY8	PY8 Evaluation

2.9.2 LEDs

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY8 (6/1/15-5/31/16)	Value Applied	0.73	N/A	Only Illinois specific value available	PY7 in-store intercept study conducted for ComEd	PY7 ComEd Lighting Evaluation
	NTG Research Results	All LEDs – 0.70	N/A	N/A	Free-ridership and spillover estimated from in-store lighting customer interviews (n=853).	PY8 Evaluation
PY9 (6/1/16-5/31/17)	Recommended	Omnidirectional LEDs: 0.58 Directional LEDs: 0.60	N/A	Most recent Illinois specific value available	PY8 in-store intercept study conducted for ComEd	PY8 ComEd Lighting Evaluation
PY10 (1/1/18-12/31/18)	Recommended	All LEDs – 0.70	N/A	Most recent AIC-specific value available	See PY8	PY8 Evaluation

2.10 Low Income Multifamily

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY10 (1/1/18-12/31/18)	Recommended	1.00	1.00	Low income program	N/A	AIC and ICC staff consensus on low income programs

2.11 Multifamily

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY1 (6/1/08-5/31/09)	Value Applied	0.76	N/A	Retrospective application	N/A – Deemed Value	Deemed
	NTG Research Results	N/A	N/A	No research conducted		
PY2 (6/1/09-5/31/10)	Value Applied	In-Unit 1.0 Common Areas: 0.8	N/A	Retrospective application	Deemed for in-unit measures. For common areas, surveyed 10 participants from a population of 12 projects.	Deemed & PY2 Evaluation
	NTG Research Results (available - 12/2010)	In-Unit 1.0 Common Areas: 0.8	N/A			
PY3 (6/1/10-5/31/11)	Value Applied	In-Unit 1.0 Common Areas: 0.8	N/A	Application of most recent research available	See PY2	PY2 Evaluation
	NTG Research Results	No research performed				
PY4 (6/1/11-5/31/12)	Value Applied	In-Unit 1.0 Common Areas 0.8 Major Measures 0.93	In-Unit 1.0 Major Measures 0.93	<ul style="list-style-type: none">Program or Market change: NoNew Program: No	See PY2 and HEP PY3 entry for Major Measures	PY2 Evaluation and PY3 HEP Evaluation
	NTG Research Results	No research conducted				

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY5 (6/1/12-5/31/13)	Value Applied	In-Unit 1.0 Common Areas 0.8 Major Measures 0.94	In-Unit 1.0 Major Measures 0.94	<ul style="list-style-type: none"> Program change: In PY4, the program began offering the Major Measures Component 	See PY2 for CAL and In-Unit; MM retro. application	PY2 and PY5 Evaluations
	NTG Research Results (available 2/6/2014)	Major Measures 0.94	Major Measures 0.94	N/A	Property manager survey (n=14) and participant self-report.	PY5 Evaluation
PY6 (6/1/13-5/31/14)	Value Applied	Common Areas 0.80 In Unit 1.00 Major Measures 0.94	Common Areas 0.80 In Unit 1.00 Major Measures 0.94	<ul style="list-style-type: none"> No market or program change Previous IL EM&V NTG exists: Yes 	See PY2 and PY5	PY2 and PY5 Evaluations
	NTG Research Results (available – 11/25/14)	Common Area – 0.83 In-Unit: CFLs – 0.95 Faucet Aerators – 1.06 Showerhead – 1.00 Programmable T-Stat – 1.04	In-Unit: Faucet Aerators – 1.00 Showerhead – 0.60 Programmable T-Stat – 1.00	N/A	Customer self-report based on interviews with property managers (n=33) for common area lighting, major measures and some in-unit measures, and tenants (n=82) for in-unit CFLs.	PY6 Evaluation
PY7 (6/1/14-5/31/15)	Value Applied	Common Area – 0.80 Major Measures: Insulation – 0.96 Air Sealing – 0.88 In-Unit: CFLs – 0.81 Faucet Aerator – 0.94 Showerhead – 0.93 Water Temp. – 1.00 Programmable T-Stat – 1.00	Major Measures: Insulation – 0.81 Air Sealing – 0.75 In-Unit: Faucet Aerator – 0.94 Showerhead – 0.93 Water Temp. – 1.00 Programmable T-Stat – 1.00	<ul style="list-style-type: none"> No market or program change Previous IL EM&V NTG exists: Yes 	Common Area from PY2; Major Measures from PY5; In Unit from ComEd's EPY3 Evaluation, as well as PY2.	PY2, PY5 NTG Research

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
	NTG Research Results	No research performed				
PY8 (6/1/15-5/31/16)*	Value Applied	In-Unit: CFLs – 0.95 Faucet Aerator – 1.06 Showerhead – 1.00 Programmable T-Stat – 1.04 CAL: 0.83 Insulation: 0.88 Air sealing: 0.96	In-Unit: Faucet Aerators – 1.00 Showerhead – 0.94 Programmable T-Stat – 0.98 Insulation: 0.71 Air sealing: 0.81	<ul style="list-style-type: none">No market or program change; IL values exists.	See PY5 and PY6	PY5 and PY6 Evaluations
	NTG Research Results (available – 1/5/2017)	Major measures Insulation – 0.86 Air Sealing – 0.86 In unit: Programmable thermostats – 0.79 Faucet aerators – 0.79 Showerheads – 0.79	Major measures Insulation – 70.7 Air Sealing – 80.0 In unit: Programmable thermostats – 1.00 Faucet aerators – 1.00 Showerheads – 1.00	<ul style="list-style-type: none">N/A	Customer self-report based on interviews with property managers (n=57) for major measures and in-unit measures out of a population of 402.	PY8 Evaluation
PY9 (6/1/16-5/31/17)	Recommended	In-Unit: CFLs – 0.95 Faucet Aerator – 1.06 Showerhead – 1.00 Programmable T-Stat – 1.04 CAL: 0.83 Insulation: 0.88 Air sealing: 0.96	In-Unit: Faucet Aerators – 1.00 Showerhead – 0.94 Programmable T-Stat – 0.98 Insulation: 0.71 Air sealing: 0.81	<ul style="list-style-type: none">No market or program change; IL values exists.	See PY5 and PY6	PY5 and PY6 Evaluations
PY10 (1/1/18-12/31/18)	Recommended	Major measures Insulation – 0.86 Air Sealing – 0.86	Major measures Insulation – 0.71 Air Sealing – 0.80	<ul style="list-style-type: none">N/A	See PY6 and PY8 Multifamily and PY8 Midstream Lighting under C&I Standard for LEDs	PY6 and PY8 Evaluations

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
		In unit: LEDs: 0.77 Programmable thermostats – 0.79 Faucet aerators – 0.79 Showerheads – 0.79 CAL – 0.83	In unit: Programmable thermostats – 1.0 Faucet aerators – 1.0 Showerheads – 1.0			

2.12 Retail Rebates

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY10 (1/1/18-12/31/18)	Recommended	Smart thermostats - N/A	Smart thermostats - N/A	Deemed savings in the IL-TRM are based on billing analysis and are inclusive of net effects	N/A	Evaluation Team Recommendation

2.13 Single-Family Moderate Income

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY10 (1/1/18- 12/31/18)	Recommended	LEDs – 0.91 Faucet Aerators – 0.96 Showerheads – 0.93 Air Sealing – 0.86 Insulation – 0.89 Programmable Thermostat – 0.94 Smart Thermostat – N/A Other Non-Lighting Measures – 0.90	LEDs- N/A Faucet Aerators – 0.97 Showerheads – 0.96 Air Sealing – 0.86 Insulation – 0.89 Programmable Thermostat – 0.94 Smart Thermostat – N/A Other Non-Lighting Measures – 0.90	At this time, it is unclear whether this program would include only low to moderate income customers or allow some higher-income customers to participate. Given the possibility of a more heterogeneous participant population, we recommend these values. However, if the final program design ultimately limits program participants to those meeting low or moderate income requirements, the evaluation team will apply a NTGR of 100% for these measures.	Avg. of values from similar programs	Average of PY9 HES and HEIQ

3. Public Sector

3.1 Savings through Efficient Products (STEP)

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY10 (1/1/18-12/31/18)	Recommended	0.90	0.90	Most recent Illinois specific value available	Secondary research	Most recent DCEO evaluation of this program

A. Past NTG Recommendations

Large C&I (PY7)

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY7 (6/1/14-5/31/15)	Recommended	0.72	0.72	<ul style="list-style-type: none"> New Program: Yes Previous EM&V NTG exists: No 	Developed NTGR based on existing values from large customers who participated in the C&I Custom Program in PY3 and PY5. Original values are based on participant self-report. Overall, the data are from 28 surveys completed from a population of 96. See the Custom section for additional details on the overall methodology.	PY3 and PY5 Custom evaluation data

All Electric Homes

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY1 – PY5	N/A - No program					
PY6 (6/1/13-5/31/14)	Value Applied	CFLs 0.88 Showerhead 0.82 Faucet Aerator 0.73 Water Heater Setback 1.00 Air sealing 1.00 (at audit) and 0.80 Insulation 0.77 HVAC Measures 0.90	N/A	• IPA Program	N/A - Deemed	Deemed
	NTG Research Results (available – 2/28/2014)	Single-Family Low-Impact 0.76 Single-Family High-Impact 1.02 Single-Family Overall 1.00 Multifamily High-Impact 1.00	N/A	N/A	Participant self-report. 22 surveys completed from population of 69.	PY6 Evaluation
PY7 (6/1/14-5/31/15)	Recommended	CFLs 0.88 Showerhead 0.82 Faucet Aerator 0.73 Water Heater Setback 1.00 Air sealing 1.00 (at audit) and 0.80 Insulation 0.77 HVAC Measures 0.90	N/A	• IPA Program	N/A - Deemed	Deemed

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY8 (6/1/15-5/31/16)	Recommended	Single-Family Low-Impact 0.76 Single-Family High-Impact 1.02 Single-Family Overall 1.00 Multifamily High-Impact 1.00	N/A	<ul style="list-style-type: none"> Updated to reflect primary research 	See PY6	PY6 Evaluation

Residential Efficient Products (PY1 - PY6)

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
PY1 (6/1/08-5/31/09)	Value Applied	N/A	N/A	No program		
	NTG Research Results					
PY2 (6/1/09-5/31/10)	Value Applied	N/A	N/A	No program		
	NTG Research Results					
PY3 (6/1/10-5/31/11)	Value Applied	0.80	0.80	In PY3, this program was part of Lighting and Appliances, and NTG was deemed at 0.80 for appliances.	N/A - Deemed	Deemed
	NTG Research Results	N/A	N/A	No research conducted		
PY4 (6/1/11-5/31/12)	Value Applied	Room AC/Dehumidifier/Air Purifier 0.78 Thermostat—Elec Heat/Thermostat—AC/Power Strips/H.P. Water Heater 0.86	0.90	Retrospective application	Customer self-report. 190 surveys completed from a population of 12,117.	PY4 Evaluation
	NTG Research Results (available 12/12)	Room AC/Dehumidifier/Air Purifier 0.78 Thermostat—Elec Heat/Thermostat—AC/Power Strips/H.P. Water Heater 0.86	0.90			
PY5 (6/1/12-5/31/13)	Value Applied	Room AC/Dehumidifier/Air Purifier 0.78 Thermostat—Elec Heat/Thermostat—AC/Power Strips/H.P. Water Heater 0.86	0.90	<ul style="list-style-type: none">Program change: NoMarket change: NoNew Program: No	See PY4	PY4 Evaluation

Past NTG Recommendations

Program Year	Type	NTGR		Justification	Method	Source
		Electric	Gas			
				<ul style="list-style-type: none"> Previous IL EM&V NTG exists: Yes 		
	NTG Research Results	N/A	N/A	No research conducted		
PY6 (6/1/13-5/31/14)	Value Applied	Room AC/Dehumidifier/Air Purifier 0.78 Thermostat—Elec Heat/Thermostat—AC/Power Strips/H.P. Water Heater 0.86		<ul style="list-style-type: none"> Program change: No Market change: No New Program: No Previous IL EM&V NTG exists: Yes 	See PY4	PY4 Evaluation
	NTG Research Results	N/A	N/A	No research conducted		

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