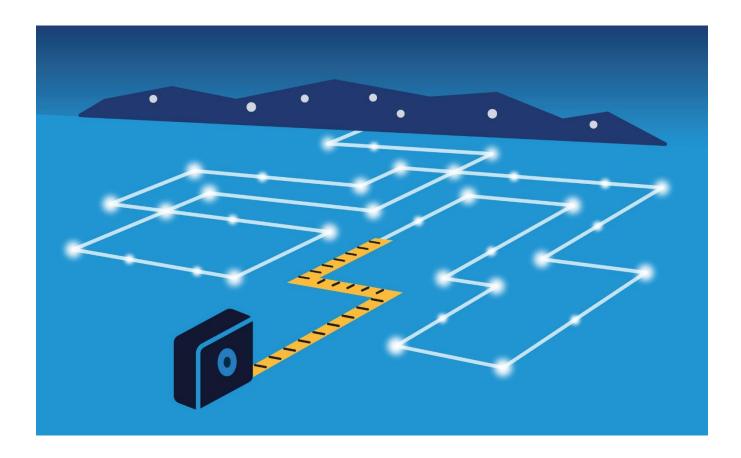




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Ameren Illinois Company Energy Efficiency Portfolio 2019 Net-to-Gross Ratios

Final

September 25, 2018



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1. Residential Program

1.1 Retail Products Initiative

1.1.1 LEDs

| Program | Туре | NTGR Electric Gas | | Justification | Method | Source |
|-----------------------------|---|-------------------|---|--|--|----------------------------------|
| Year | 1,00 | | | Justinoation | metriou | |
| PY8 | Value Applied | 0.73 | N/A | Only Illinois specific value available | PY7 in-store intercept study conducted for ComEd | PY7 ComEd Lighting Evaluation |
| (6/1/15- 5/31/16) | NTG Research Results | All LEDs - 0.69 | 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) | Value Applied 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 | |
| 2018 | Recommended | All LEDs - 0.70 | N/A | Most recent AIC-specific value available | See PY8 | PY8 Evaluation |
| 2019 | Recommended | All LEDs - 0.69 | N/A | Most recent AIC-specific value available | See PY8 | PY8 Evaluation |

1.1.2 Advanced Thermostats

| Program | T | NTGR | | Lucaidia salau | N/I a t la a al | Carman | |
|---------|-------------|------|----------|---|-----------------|-----------------------------------|--------|
| Year | _ | Туре | Electric | Gas | Justification | Method | Source |
| 2019 | Recommended | N/A | N/A | Deemed savings in the IL-TRM are based on billing analysis and are inclusive of net effects | N/A | Evaluation Team Recommendation | |

1.1.3 Pool Pumps

| Program | Time | NTGR | | lucatification | Mathad | Cauras | |
|---------|-------------|----------|-----|--|--------|-----------------------------------|--|
| Year | Туре | Electric | Gas | Justification | Method | Source | |
| 2019 | Recommended | 0.80 | N/A | Default value given lack of existing data for this measure | N/A | Evaluation Team Recommendation | |

1.1.4 Tier 1 Advanced Power Strips

| Program | Toma | NTGR | | lustification | Mathad | Sauras | |
|---------|-------------|---|-----|---------------|---|--|--|
| Year | Туре | Electric | Gas | Justification | Method | Source | |
| 2019 | Recommended | General Population - 0.86 Income Eligible – 1.00 | N/A | · · | Participant Self Report based on 190 surveys completed from a population of 12,117. | PY4 Evaluation for the General Population; SAG Consensus for Income Eligible | |

1.2 Income Qualified Initiative

| 5 . V | | NT | GR | | | | | |
|-------------------------|----------------------|-------------------------------|-----------------------|---|--------------|--------|--|--|
| Program Year | Туре | Electric | Gas | Justification | Method | Source | | |
| 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 | 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 | | |
| (6/1/12-5/31/13) | NTG Research Results | No research | No research performed | | | | | |
| PY6 | 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 | | |
| (6/1/13-5/31/14) | NTG Research Results | 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 | | |
| (0) 1/ 1 : 0/ 01/ 10/ | 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 | | |
| (0/ 1/ 10 0/ 01/ 10/ | 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 | | |
| 2018 | Recommended | 1.0 | 1.0 | Other: Consensus reached between ICC and AIC that program design merits NTGR of 1.0 | N/A - Deemed | Deemed | | |
| 2019 | Recommended | 1.0 | 1.0 | Other: Consensus reached between ICC and AIC that program design merits NTGR of 1.0 | N/A - Deemed | Deemed | | |

1.3 Public Housing Initiative

| Duagua Vasu | Туре | N | lucatific actions | No akla a al | Carriera | |
|--------------|----------------|----------|-------------------|---|----------|------------------|
| Program Year | | Electric | Gas | Justification | Method | Source |
| 2019 | Recommendation | 1.00 | 1.00 | Consensus that program design merits NTGR of 1.0 | N/A | SAG Consensus |

1.4 Behavioral Modification Initiative

| Program Year | Type | NTGR | | Justification | Method | Source | |
|-------------------------|---------------|-----------|-----|---|------------------|--------|--|
| riogiaili leai | Туре | Electric | Gas | Justinication | Methou | Source | |
| PY1 | No Program | | | | | | |
| PY2 | No Program | o 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) | Value Applied | N/A | N/A | Net savings determined through billing analysis | Billing analysis | N/A | |
| 2018 | Recommended | N/A | N/A | Net savings determined through billing analysis | Billing analysis | N/A | |
| 2019 | Recommended | N/A | N/A | Net savings determined through billing analysis | Billing analysis | N/A | |

1.5 HVAC Initiative

| | _ | NTGR | | | | | | | | | |
|-------------------------|--|---|--|---|--|-----------------------|--|--|--|--|--|
| Program Year | Туре | Electric | Gas | Justification | Method | Source | | | | | |
| PY1 (6/1/08-5/31/09) | N/A - No program | | | | | | | | | | |
| PY2 | Value Applied | 0.63 | 0.49 | Retrospective application | Secondary research | Secondary research | | | | | |
| (6/1/09-5/31/10) | NTG Research Results No research conducted | | | | | | | | | | |
| | Value Applied | 0.59 | Furnaces - 1.01 Boilers - 1.02 | | Customer self- report for FR and | | | | | | |
| PY3 (6/1/10-5/31/11) | NTG Research Results (available 2/2012) | 0.59 | Furnaces - 1.01 Boilers - 1.02 | Retrospective application | S0: 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 | | | | | |
| 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 (rb)="" -="" 0.69<br="" 16="" cac="" hp="">SEER 16+ CAC/HP (RB) - 0.76 <seer (er)="" -="" 0.57<="" 16="" cac="" hp="" td=""><td>97% Furnace or Boiler - 0.64 95% Furnace - 0.52</td><td>N/A</td><td>Participant customer surveys for free ridership</td><td>PY5 Evaluation</td></seer></seer> | 97% Furnace or Boiler - 0.64 95% Furnace - 0.52 | N/A | Participant customer surveys for free ridership | PY5 Evaluation | | | | | |

Residential Program

| Duagua va va | Time | NTGR | | luckification | Mathad | Caumaa |
|-------------------------|--|---|-----------------------------|--|---|---|
| Program Year | Туре | Electric | Gas | Justification | Method | Source |
| | | 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 | 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 | <pre> <seer (er)="" (rb)="" -="" 0.53="" 0.65="" 0.66<="" 0.72="" 0.78="" 16="" 16+="" <seer="" cac="" ecm="" hp="" pre="" seer=""></seer></pre> | 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 |
|-------------------------|----------------------|---|--------------------|---|--|----------------------------|
| Program rear | Туре | Electric | Gas | Justilication | Method | Source |
| 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 conduc | ted | | |
| 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 |
| 2018 | 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 |
| 2019 | 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%.

1.6 Appliance Recycling Initiative

| 5 . V | | NTGR | | 1 110 11 | | | |
|-------------------------|---|---|-----|--|--|--------------------------------------|--|
| Program Year | Туре | Electric | Gas | Justification | Method | Source | |
| PY1 | Value Applied | Refrigerator 0.51 Freezer 0.53 | N/A | | Customer self-report. 93 surveys completed | | |
| (6/1/08-5/31/09) | NTG Research Results (available 09/2009) | Refrigerator 0.51 Freezer 0.53 | N/A | Retrospective application | from a population of 2,876. | PY1 Evaluation | |
| PY2 | Value Applied | Refrigerator 0.79 Freezer 0.82 Room Air Conditioner 1.0 | N/A | | Customer self-report. 159 surveys completed | DV0 5 1 11 | |
| (6/1/09-5/31/10) | NTG Research Results (available 9/2010) | Refrigerator 0.79 Freezer 0.82 Room Air Conditioner 1.0 | N/A | Retrospective application | from a population of 11,211. | PY2 Evaluation | |
| PY3 (6/1/10-5/31/11) | Value Applied | Refrigerator 0.79 Freezer 0.82 Room Air Conditioner 1.0 | N/A | Program or Market change: No New Program: No Previous EM&V NTG exists: Yes | See PY2 | PY2 Evaluation | |
| | NTG Research Results | N/A | N/A | No research conducted | | | |
| PY4 | Value Applied | Refrigerator 0.64 Freezer 0.65 Room Air Conditioner 1.0 | N/A | Retrospective application | Customer self-report. 141 surveys completed | PY4 Evaluation not including induced | |
| (6/1/11-5/31/12) | NTG Research Results (available 02/2013) | Results Refrigerator 0.64 | | | from a population of 14,232. | replacement | |
| PY5 (6/1/12-5/31/13) | Value Applied | Refrigerator 0.79 Freezer 0.82 Room Air Conditioner 1.0 | N/A | Program change: No Market change: No New Program: No Previous IL EM&V NTG exists: Yes | See PY2 | PY2 Evaluation | |
| (0, 1, 12 3, 31, 13) | 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 | PY5 Evaluation | |

| Burgara Vara | | NTGR | | least Constant | Mathad | C |
|-------------------------|---|--|-----|--|---|---|
| Program Year | Туре | Electric | Gas | Justification | Method | Source |
| | | | | | freezer surveys from population of 2,899 | |
| PY6 (6/1/13-5/31/14) | Value Applied | Refrigerator 0.63 Freezer 0.63 Room Air Conditioner 1.0 | N/A | 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 |
| (0) 1) 13 0) 31, 14) | 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 | 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 | 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 | | | 1 | |
| PY9 (6/1/16-5/31/17) | Recommended | Refrigerator 0.52 Freezer 0.62 | N/A | Program change: No Market change: No New Program: No Previous IL EM&V NTG exists: Yes | See PY6 NTG research | PY6 Evaluation |
| 2018 | Recommended | Refrigerator 0.52 Freezer 0.62 | N/A | Program change: NoMarket change: NoPrevious IL EM&V NTG exists: Yes | See PY6 NTG research | PY6 Evaluation |
| 2019 | Recommended | Refrigerator 0.52 Freezer 0.62 | N/A | Program change: NoMarket change: No | See PY6 NTG research | PY6 Evaluation |

| Program Year Ty | Туре | NTGR | | Justification | Mathad | Sauraa |
|-----------------|------|----------|-----|-------------------------------------|--------|--------|
| | | Electric | Gas | Justification | Method | Source |
| | | | | Previous IL EM&V NTG exists: Yes | | |

1.7 Direct Distribution of Efficient Products Initiative

| Dua dua na Va au | T | NT | GR | lucatification | Mathad | Carriera | | | | | |
|-----------------------------|-------------------------|---|--|--|--|--------------------------------|--|--|--|--|--|
| Program Year | Туре | Electric | Gas | Justification | Method | Source | | | | | |
| 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 | Similar to IPA program for rural kits | N/A - Deemed | Docket 12-0544 (IPA filing) | | | | | |
| 0,01,11, | NTG Research Results | No research conducted | o 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 | New Program: No Previous 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 | 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 | New Program: No Previous 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 | | | | | | | | | |

| Program Year | Type | NTO | GR | Justification | Method | Source |
|-----------------------------|-------------------------|--|---|---|---|---|
| Fiografii fear | Туре | Electric | Gas | Justilication | Method | Source |
| 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 | 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 |
| | NTG Research Results | CFLs: 0.61 Showerheads – 0.84 Kitchen faucet aerators – 0.84 Bath aerators – 0.87 Water heater Setback – 0.88 | N/A | N/A | Participant self-report with 75 respondents out of a population of 9,499. | PY9 Evaluation |
| 2018 | 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 | 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 |
| 2019 | Recommended | LEDs - 0.84 Showerheads - 1.00 Kitchen faucet aerators - 1.00 Bath aerators - 1.00 Water heater Setback - 1.00 | Showerheads - 1.00 Kitchen faucet aerators - 1.00 Bath aerators - 1.00 Water heater Setback - 1.00 | LEDs: Most appropriate IL value; Other Measures: SAG consensus value on education kits | LEDs: PY9 ComEd HEA Evaluation All Others: N/A | Evaluation Team Recommendation/ SAG Consensus |

1.8 Multifamily Initiative

| Dua Yuawa Va au | Туре | NTGR | | Justification | Method | Course |
|------------------|-------------------------|----------------------------------|-----|---------------------------|---|-------------------|
| Program Year | | Electric | Gas | Justification | Metriou | Source |
| PY1 | Value Applied | 0.76 | N/A | Retrospective application | N/A - Deemed Value | Deemed |
| (6/1/08-5/31/09) | NTG Research Results | N/A | N/A | No research conducted | | |
| PY2 | Value Applied | In-Unit 1.0 Common Areas: 0.8 | N/A | Retrospective | Deemed for in-unit measures. For common | Deemed & |
| (6/1/09-5/31/10) | NTG Research Results | In-Unit 1.0 Common Areas: 0.8 | N/A | application | areas, surveyed 10 participants from a population of 12 projects. | PY2 Evaluation |

| Duaguaya Vasu | Tura | NTGF | ₹ | Justification | Method | Cauras |
|-------------------------|--|--|--|---|---|--|
| Program Year | Туре | Electric | Gas | Justification | Method | Source |
| | (available - 12/2010) | | | | | |
| PY3 | Value Applied | In-Unit 1.0 Common Areas: 0.8 | N/A | Application of most recent research available | See PY2 | PY2 Evaluation |
| (6/1/10-5/31/11) | 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 | 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 | | | | |
| 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 | 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 | No market or program change Previous IL EM&V NTG exists: Yes | See PY2 and PY5 | PY2 and PY5 Evaluations |

| Due from Vers | Type | NTGF | ₹ | localities de la co | Mathad | Carrier | |
|-------------------------|--|--|---|--|---|----------------------------|--|
| Program Year | Туре | Electric | Gas | Justification | Method | Source | |
| | 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 | 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 | |
| | NTG Research Results | No research performed | | | | | |
| PY8 | 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 | In-Unit: Faucet Aerators – 1.00 Showerhead – 0.94 Programmable T-Stat – 0.98 Insulation: 0.71 Air sealing: 0.81 | No market or program change; IL values exists. | See PY5 and PY6 | PY5 and PY6 Evaluations | |
| (6/1/15-5/31/16) | NTG Research Results (available – 1/5/2017) | Air sealing: 0.96 Major measures Insulation – 0.86 Air Sealing – 0.86 In unit: Programmable thermostats – 0.79 | Major measures Insulation – 70.7 Air Sealing – 80.0 In unit: Programmable thermostats – 1.00 | • 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 | |

| Bus dans Vana | Tymo | NTGR | t | localities disco | Mathad | G |
|-------------------------|-------------|---|--|---|--|----------------------------|
| Program Year | Туре | Electric | Gas | Justification | Method | Source |
| | | Faucet aerators – 0.79 Showerheads – 0.79 | Faucet aerators – 1.00 Showerheads – 1.00 | | | |
| 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 | No market or program change; IL values exists. | See PY5 and PY6 | PY5 and PY6 Evaluations |
| 2018 | Recommended | Major measures Insulation - 0.86 Air Sealing - 0.86 In unit: LEDs: 0.77 Programmable thermostats - 0.79 Faucet aerators - 0.79 Showerheads - 0.79 CAL - 0.83 | Major measures Insulation – 0.71 Air Sealing – 0.80 In unit: Programmable thermostats – 1.0 Faucet aerators – 1.0 Showerheads – 1.0 | • N/A | See PY6 and PY8 Multifamily and PY8 Midstream Lighting under C&I Standard for LEDs | PY6 and PY8 Evaluations |
| 2019 | Recommended | LEDs: 0.77 Programmable thermostats – 0.79 Smart thermostat – N/A Faucet aerators – 1.00 Showerheads – 1.00 Pipe Wrap – 0.79 Advanced Power Strips – 0.79 Common Area Lighting – 0.77 | Prog. thermostats – 1.00 Faucet aerators – 1.00 Showerheads – 1.00 Pipe Wrap – 1.00 | Most recent AIC specific values available and appropriate for application | See PY8 Multifamily and PY8 Midstream Lighting under C&I Standard for LEDs and Common Area Lighting | PY8 Evaluations |

1.9 Residential Program-Level Non-Participant Spillover

| Duaguam Vaar | T | Net Savin _s | gs Multiplier* | lundification | NA - Ale - al | Carrier |
|--------------|----------------|------------------------|-------------------|---------------------------------|--|-------------------|
| Program Year | Туре | Electric | Justification Gas | Method | Source | |
| 2019 | Recommendation | 103.1% | 104.4% | Most recent AIC value available | Participant Self- Report with 350 AIC customer from a sample frame of 4.997. | PY9 Evaluation |

^{*} This value is a multiplier on net savings and is not additive to NTGRs.

For 2018, the recommendations provided below apply to both public sector and non-public sector participants in AIC's Business Program. Research is planned for 2018 to determine if updated values for each sector are needed.

2.1 Standard Initiative

The Standard Initiative has a number of distinct components as outlined in this section. The evaluation team has recommended values for each in Sections 2.1.1, 2.1.2, 2.1.3, 2.1.4, and 2.1.5.

2.1.1 Core Standard Initiative

| Duadram Vaar | Tyres | N' | TGR | luctification | Mathad | Source | |
|-------------------------|--|---|---|-----------------------------|---|----------------|--|
| Program Year | Туре | Electric | Gas | Justification | Method | Source | |
| PY1 (6/1/08-5/31/09) | Value Applied NTG Research Results (available 11/30/09) | 0.62 | N/A N/A | Retrospective application | Customer self-report. 17 surveys completed from a population of 34. Basic method. | PY1 Evaluation | |
| | Value Applied | 0.78 (program-level) | N/A | | Customer self-report. 80 | | |
| PY2 (6/1/09-5/31/10) | 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 | Retrospective application | 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 | |
| | Value Applied | 0.75 (program-level) DI Aerators – 0.76 | N/A | | 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 (6/1/10-5/31/11) | 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 | Retrospective application | | PY3 Evaluation | |
| 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 key account executives and trade allies. | PY4 Evaluation |
|-------------------------|---|---|--|--------------------------------|--|----------------------------|
| | 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 |
| PY5 (6/1/12-5/31/13) | 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 | | | | |
| | 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 |
| PY7 (6/1/14-5/31/15) | 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 | PY7 Evaluation |

| | | | | | census by end-use from population of 204 contacts. | |
|-------------------------|-------------------------|--|--|--------------------------------|---|----------------------------|
| PY8 (6/1/15-5/31/16) | Value Applied | Lighting - 0.78 HVAC - 0.44 Motors - 0.81 Specialty - 0.83 | 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 |
| | NTG Research Results | No research conducted | I | | | |
| PY9 (6/1/16-5/31/17) | Value Applied | 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 2.6 for non-participant SO (updated in PY7). | PY7 Evaluation |
| | NTG Research Results | No research conducted | l | · | | |
| 2018 | 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 2.6 for non-participant SO (updated in PY7). | PY7 Evaluation |
| 2019 | 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 2.6 for non-participant SO (updated in PY7). | PY7 Evaluation |

2.1.2 Online Store

| Brodram Voor | Туре | N | rgr | lundification | Mathad | Source |
|-------------------------|---|-------------------|-----|---------------------------|---|----------------|
| Program Year | | Electric | Gas | Justification | Method | |
| PY1 (6/1/08-5/31/09) | Value Applied | N/A - Not offered | | | | |
| DVO | Value Applied | 0.80 | N/A | Initial launch and | Deemed planning value | AIC |
| PY2 (6/1/09-5/31/10) | NTG Research Results (available 11/30/09) | 0.80 | N/A | limited participation | | |
| DV2 | Value Applied | 0.64 | N/A | Detroopertive | Customer self-report. | |
| PY3 (6/1/10-5/31/11) | NTG Research Results (available 11/30/09) | 0.64 | N/A | Retrospective application | 88 surveys completed from a population of | PY3 Evaluation |

| Burguan Varu | T | NT | GR | Land Constant | Marthaul | C |
|-------------------------|--|-----------------------|-----|--|---|----------------|
| Program Year | Туре | Electric | Gas | Justification | Method | Source |
| | | | | | 17,596. Basic method. | |
| | Value Applied | 0.80 | N/A | No program or market change | See PY2 | PY2 Evaluation |
| PY4 (6/1/11-5/31/12) | 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 | Value Applied | 0.64 | N/A | No program or market change | See PY3 | PY3 Evaluation |
| (6/1/12-5/31/13) | NTG Research Results | No research conducted | | | | |
| PY6 | Value Applied | 0.83 | N/A | Updated IL value available | See PY4 | PY4 Evaluation |
| (6/1/13-5/31/14) | NTG Research Results | No research conducted | | | | |
| PY7 | Value Applied | 0.83 | N/A | No program or market change | See PY4 | PY4 Evaluation |
| (6/1/14-5/31/15) | NTG Research Results | No research conducted | | | | |
| PY8 | Value Applied | 0.83 | N/A | Previous EM&V NTG exists | See PY4 | PY4 Evaluation |
| (6/1/15-5/31/16) | NTG Research Results | 0.83 | N/A | N/A | Customer self-report. 131 surveys from a population of 1,333. | PY8 Evaluation |
| PY9 | Value Applied | 0.83 | N/A | Previous EM&V NTG exists | See PY4 | PY4 Evaluation |
| (6/1/16-5/31/17) | NTG Research Results | No research conducted | | | | |
| 2018 | Recommended | 0.83 | N/A | Most recent AIC specific value | See PY8 and Section 2.6 for non-participant SO (updated in PY7). | PY8 Evaluation |
| 2019 | Recommended | 0.83 | N/A | Most recent AIC specific value | See PY8 and Section 2.6 for non-participant SO (updated in PY7). | PY8 Evaluation |

2.1.3 Green Nozzles

| . | _ | N | rgr | | | | | | |
|----------------------|----------------------|------------------------|-----------------|-----------------------------|---|----------------|--|--|--|
| Program Year | Туре | Electric | Gas | Justification | Method | Source | | | |
| 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 | A – Not offered | | | | | | |
| PY3 (6/1/09-5/31/10) | Value Applied | N/A - Not offered | | | | | | | |
| | Value Applied | 0.92 | 0.89 | | Customer self-report. | | | | |
| PY4 (6/1/11-5/31/12) | NTG Research Results | 0.92 | 0.89 | Retrospective application | 101 surveys from a population of 514 for Green Nozzles | PY4 Evaluation | | | |
| PY5 | Value Applied | 0.92 | 0.89 | Updated IL value available | See PY4 | PY4 Evaluation | | | |
| (6/1/12-5/31/13) | NTG Research Results | No research conducted* | | | | | | | |
| PY6 (6/1/13-5/31/14) | Value Applied | 0.92 | 0.89 | No program or market change | See PY4 | PY4 Evaluation | | | |
| (6/1/13-5/31/14) | 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 | | | |
| (6/1/14-5/31/15) | NTG Research Results | No research conducted | * | | | | | | |
| PY8 | Value Applied | 0.92 | 0.89 | Previous EM&V NTG exists | See PY4 | PY4 Evaluation | | | |
| (6/1/15-5/31/16) | NTG Research Results | No research conducted | * | | | | | | |
| PY9 | Value Applied | 0.92 | 0.89 | Previous EM&V NTG exists | See PY4 | PY4 Evaluation | | | |
| (6/1/16-5/31/17) | NTG Research Results | No research conducted | <u> </u> * | | | | | | |
| 2018 | Recommended | 0.92 | 0.89 | Previous EM&V NTG exists | See PY4 and Section 2.6 for non-participant SO (updated in PY7) | PY4 Evaluation | | | |
| 2019 | Recommended | 0.92 | 0.89 | Previous EM&V NTG exists | See PY4 and Section 2.6 for non-participant SO (updated in PY7) | PY4 Evaluation | | | |

 $[\]hbox{$\star$ Note: Research has not been conducted due to the very limited activity within this program component.}$

2.1.4 Instant Incentives

| Program | T | NTGR | | local Constant | Markard | C |
|-----------------------------|-------------------------|--|-----|---|--|---------------------------------|
| Year | Туре | Electric | Gas | Justification | Method | Source |
| PY8 (6/1/15- 5/31/16) | Value Applied | 0.68 CFLs 0.77 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 | 0.77 (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- | Recommended | 0.64 CFLs 0.78 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 |
| 5/31/17) | NTG Research Results | 0.92 Linear LEDs 0.92 Specialty LEDs 0.92 Standard LEDs | N/A | N/A | Customer self-report approach based on participant internet surveys with 160 participants out of a population of 1,603. | PY9 Evaluation |
| 2018 | Recommended | 0.77 (Linear LEDs, Specialty LEDs, Standard LEDs, CFLs, and Occupancy Sensors) | N/A | Most recent AIC specific value | See PY8 Evaluation | PY8 Evaluation |
| 2019 | Recommended | 0.92 Linear LEDs 0.92 Specialty LEDs 0.92 Standard LEDs | N/A | Most recent AIC specific value | See PY9 Evaluation and Section 2.6 for non-participant SO. | PY9 Evaluation |

2.1.5 Small Business Direct Install

| Duaguana Vaar | Time | N | GR | Justification | Mathad | Source | | | | | |
|-------------------------|---|-------------|-----------------------|--|---|----------------|--|--|--|--|--|
| Program Year | Туре | Electric | Gas | Justification | Method | Source | | | | | |
| | Value Applied | 0.90 | N/A | IPA Program | AIC Planning Value | Deemed | | | | | |
| PY6 (6/1/13-5/31/14) | 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 | Value Applied | 0.90 | N/A | IPA Program | AIC Planning Value | Deemed | | | | | |
| (6/1/14-5/31/15) | NTG Research Results | No research | No research conducted | | | | | | | | |
| | Value Applied | 0.89 | N/A | Previous EM&V NTGR Exists | See PY6 | PY6 Evaluation | | | | | |
| PY8 (6/1/15-5/31/16) | 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 | Value Applied | 0.89 | N/A | Previous EM&V NTGR Exists | See PY6 | PY6 Evaluation | | | | | |
| (6/1/16-5/31/17) | NTG Research Results | No research | conducted | | | | | | | | |
| 2018 | Recommended | 0.96 | 0.96 | Most recent AIC specific value available | See PY8 | PY8 Evaluation | | | | | |
| 2019 | Recommended | 0.96 | 0.96 | Most recent AIC specific value available | See PY8 | PY8 Evaluation | | | | | |

2.2 Custom Initiative

| . | _ | NT | GR | | | |
|-------------------------|--|---------------------|------|--|--|-------------------|
| Program Year | Туре | Electric | Gas | Justification | Method | Source |
| PY1 | Value Applied | 0.77 | N/A | Retrospective | Customer self-report. 14 surveys completed | PY1 |
| (6/1/08-5/31/09) | NTG Research Results (available 11/30/09) | 0.77 | N/A | application | from a population of 34. Basic method. | Evaluation |
| | Value Applied | 0.69 | N/A | | Customer self-report. 56 surveys completed from a population of 146. Enhanced method. | |
| PY3 (6/1/10-5/31/11) | NTG Research Results (available 1/28/11) | 0.69 | N/A | Retrospective application | Trade allies and key account executives called for 7 participants and their responses were factored in to the customer free ridership calculation. | PY2 Evaluation |
| | Value Applied | 0.75 | N/A | | Electric: Customer self-report. 47 surveys completed from a population of 125. | PY3 Evaluation |
| PY3 (6/1/10-5/31/11) | NTG Research Results (available 12/19/11) | 0.75 | N/A | Retrospective application | Enhanced method. Trade allies and key account executives called for 5 participants and their responses were factored in to the customer free ridership calculation. | |
| PY4 (6/1/11-5/31/12) | Value Applied | 0.69 | 0.69 | Program or Market change: No New Program: No Previous 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 perforn | ned | | | |
| PY5 (6/1/12-5/31/13) | Value Applied | 0.75 | 0.81 | Program or Market change: No New Program: No Previous EM&V NTG exists: Yes | 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 |

| - · · · · · | _ | NT | GR | | | |
|-------------------------|---|---|---|--|--|----------------------------|
| Program Year | Туре | Electric | Gas | Justification | Method | Source |
| | 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 | 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 | Program change: No Market change: No New Program: No Previous EM&V NTG exists: Yes | See PY5 for FR and participant SO | PY5 Evaluation |
| | ned | | | | | |
| PY8 (6/1/15-5/31/16) | Value Applied | 0.75 | 0.83 | 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 2.6 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 | PY8 Evaluation |

| Drodrom Voor | Typo | NT | GR | Justification | Method | Source | |
|-------------------------|---------------|---|---|--|---|----------------------------|--|
| Program Year | Туре | Electric | Gas | Justilication | Method | Source | |
| | | | | | required interviews with trade allies or key account executives. | | |
| PY9 (6/1/16-5/31/17) | Value Applied | 0.74 | 0.83 | 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 2.6 for non-participant SO. | PY5 and PY6 Evaluations | |
| 2018 | Recommended | Core Custom: 0.82 New Construction Lighting: 0.82 | Core Custom: 0.94 New Construction Lighting: 0.94 | Most recent AIC specific value available | See PY8 Evaluation; See Section 2.6 for non-participant SO. | PY8 Evaluation | |
| 2019 | Recommended | Core Custom: 0.82 New Construction Lighting: 0.82 | Core Custom: 0.94 New Construction Lighting: 0.94 | Most recent AIC specific value available | See PY8 Evaluation; See Section 2.6 for non-participant SO. | PY8 Evaluation | |

2.3 Retro-Commissioning Initiative

| 5 | Ture | | NTGR | | | | | |
|-------------------------|---|----------|------|--|--|-------------------|--|--|
| Program Year | Туре | Electric | Gas | Justification | Method | Source | | |
| PY1 | Value Applied | 1.0 | N/A | Pilot with only 1 project. | Deemed | PY1 Evaluation | | |
| (6/1/08-5/31/09) | NTG Research Results | N/A | N/A | No research conducted | | | | |
| PY2 | Value Applied | 0.8 | N/A | Retrospective application | AIC planning Value | PY2 Evaluation | | |
| (6/1/09-5/31/10) | NTG Research Results | N/A | N/A | No research conducted | | | | |
| PY3 | Value Applied | 0.58 | N/A | Potroppostive application | Customer self-report. 17 surveys completed from a population of | PY3 | | |
| (6/1/10-5/31/11) | NTG Research Results (available 04/01/12) | 0.58 | N/A | Retrospective application | 18 participant contacts. Basic method. | Evaluation | | |
| | Value Applied | 0.95 | 0.95 | | Customer self-report. 14 surveys completed from a population of | PY4 Evaluation | | |
| PY4 (6/1/11-5/31/12) | NTG Research Results (available 01/24/13) | 0.95 | 0.95 | Retrospective application | 32 participants. Service Provider self-report. 9 surveys completed from a population of 12 participants. Enhanced method. Participant and Service Provider spillover researched. | | | |
| PY5 (6/1/12-5/31/13) | Value Applied | 0.95 | 0.95 | 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 | Туре | Electric | NTGR Gas | Justification | Method | Source |
|-------------------------|---|-----------|--------------|---|---|-------------------|
| | NTG Research Results | N/A | N/A | No Research Conducted | | |
| PY6 (6/1/13-5/31/14) | Value Applied | 0.96 | 0.95 | Program change: No Market change: No New Program: No Previous EM&V NTG exists: Yes | See PY4; See Section 2.6 for electric non-participant SO. | PY4 Evaluation |
| (0/1/13-3/31/14) | NTG Research Results (available - 3/12/2015) | 0.92 | 0.91 | No Research Conducted Program change: No Market change: No New Program: No Previous EM&V NTG exists: Yes Customer self-report. 6 surveys completed from a population of 26. See Section 2.6 for electric non-participant SO. Program change: No Market change: No New Program: No Previous EM&V NTG exists: Yes Previous EM&V NTG exists: Yes MARKET Change: No Previous EM&V NTG exists: Yes N/A See PY6 for FR and participant SO. See PY6 for FR and participant SO; See Section 2.6 for electric non-participant SO (updated in PY7). Customer self-report. 11 surveys completed from a population of 21. See Section 2.6 for electric non-participant SO. See PY6 for FR and participant SO (see Section 2.6 for electric non-participant SO. Previous EM&V NTG exists: Yes N/A Previous EM&V NTG exists: Yes N/A See PY6 for FR and participant SO (updated in PY7). See PY6 for FR and participant SO, See Section 2.6 for electric non-participant SO. See PY6 for FR and participant SO, See Section 2.6 for electric non-participant SO. See PY6 for FR and participant SO, See Section 2.6 for electric non-participant SO. See PY9 for FR and participant SO, See Section 2.6 for electric non-participant SO. See PY9 for FR and participant SO, See Section 2.6 for electric non-participant SO. See PY9 for FR and participant SO, See Section 2.6 for electric non-participant SO. See PY9 for FR and participant SO, See Section 2.6 for electric non-participant SO. | PY6 Evaluation | |
| PY7 (6/1/14-5/31/15) | Value Applied | 0.96 | 0.95 | Market change: NoNew Program: NoPrevious EM&V NTG exists: | 1 ' | PY4 Evaluation |
| | NTG Research Results | | | | | |
| PY8 (6/1/15-5/31/16) | Value Applied | 0.92 | 0.91 | | S0; See Section 2.6 for non- | PY6 Evaluation |
| | NTG Research Results | No resear | ch performed | | | |
| PY9 | Recommended | 0.91 | 0.91 | | S0; See Section 2.6 for electric non-participant S0 (updated in | PY6 Evaluation |
| (6/1/16-5/31/17) | NTG Research Results | 0.89 | 0.89 | N/A | ious EM&V NTG exists: See PY6 for FR and participant SO; See Section 2.6 for non-participant SO. See PY6 for FR and participant SO; See Section 2.6 for electric non-participant SO (updated in PY7). Customer self-report. 11 surveys completed from a population of 21. See Section 2.6 for electric non-participant SO. See PY6 for FR and participant | PY9 Evaluation |
| 2018 | Recommended | 0.91 | 0.91 | | S0; See Section 2.6 for electric non-participant S0 (updated in | PY6 Evaluation |
| 2019 | Recommended | 0.89 | 0.89 | | SO; See Section 2.6 for electric | PY9 Evaluation |

2.4 Streetlighting Initiative

| Program Year | Type | Type NTGR | | Justification | Method | Source | |
|--------------|--------------|-------------|---------------|---------------|--|--------|-----------------------------------|
| riogiani | Electric Gas | Gas | Justinication | metriod | Source | | |
| 2019 |) | Recommended | 1.00 | N/A | Participants have no ability to implement without AIC assistance | N/A | Evaluation Team Recommendation |

2.5 Combined Heat and Power

| Buo duo vo Vo ov | T | NT | GR | lundisi nadi na | Madhad | Source | |
|-----------------------------|-------------|------------------------|------------------------|---|---|---------------------------------|--|
| Program Year | Туре | Electric | Gas | Justification | Method | Source | |
| PY8 (6/1/15- 5/31/16) | Recommended | N/A - Project Specific | N/A - Project Specific | New Program: YesPrevious 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 | New Program: NoPrevious 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 | |
| 2018 | Recommended | N/A - Project Specific | N/A - Project Specific | New Program: NoPrevious 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 | |
| 2019 | Recommended | N/A - Project Specific | N/A - Project Specific | New Program: NoPrevious 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 | |

2.6 Business Program-Level Non-Participant Spillover

| Program Year | Туре | Non- Participant Spillover | Justification | Method | Source |
|-----------------------------|-------------------------|--|--|--|----------------------------|
| PY7 (6/1/14- 5/31/15) | Value Applied | Electric - 0.01 | Based on IL specific primary data collection | 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. 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. | PY5 and PY3 Evaluations |
| | NTG 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- | Value Applied | Electric - 0.01 | Based on IL specific primary data collection | See PY7 value applied | PY5 and PY3 Evaluations |
| 5/31/16) | NTG Research Results | No research pe | erformed | | |
| PY9 (6/1/16- | Value Applied | Electric - 0.00 | Based on IL specific primary data collection | See PY7 NTG research results | PY7 Evaluation |
| 5/31/17) | NTG Research Results | Applied Electric - 0.01 Applied Electric - 0.01 Applied Electric - 0.01 Applied Electric - 0.00 Based on IL specific primary data collection Based on IL specific primary data collection | No research performed | | |
| 2018 | Recommended | Electric - 0.00 | specific primary | See PY7 NTG research results | PY7 Evaluation |
| 2019 | Recommended | Electric - 0.00 | specific primary | See PY7 NTG research results | PY7 Evaluation |

A. Recommendations for Past AIC Program Offerings

Residential Lighting (CFLs)

| | | NTGR | | | | | |
|-----------------------------|--|--------------------|-----|--|---|----------------|--|
| Program Year | Туре | Electric | Gas | Justification | Method | Source | |
| PY1 | Value Applied | 1.0 | N/A | Retrospective | Customer self-report of CFL purchase rates of | | |
| (6/1/08- 5/31/09) | NTG Research Results (available 10/09) | 1.0 | N/A | application | AIC customers and customers in non-program areas. | PY1 Evaluation | |
| 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 | PY2 Evaluation | |
| | NTG Research Results (available 10/09) | 0.83 | N/A | | programs or programs with different levels of maturity. | | |
| PY3 (6/1/10- | Value Applied | 0.83 | | Application of most recent research available | See PY2 | PY2 Evaluation | |
| 5/31/11) | NTG Research Results | No research conduc | | | | | |
| PY4 (6/1/11- 5/31/12) | Value Applied | 0.83 | N/A | Program or Market change: No Previous EM&V NTG exists: Yes | See PY2 | PY2 Evaluation | |
| , , , | NTG Research Results | No research conduc | ted | | | | |
| PY5 (6/1/12- | Value Applied | 0.83 | N/A | Program or Market change: No Previous EM&V NTG exists: Yes | See PY2 | PY2 Evaluation | |
| 5/31/13) | 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 inhome lighting study. | PY5 Evaluation | |

Recommendations for Past AIC Program Offerings

| | _ | NTGR | | | | |
|-------------------------------|---|-------------------------------------|-----|--|--|----------------|
| Program Year | Туре | Electric | Gas | Justification | Method | Source |
| PY6 (6/1/13- | Value Applied | 0.47 | N/A | Program or Market change: No Previous EM&V NTG exists: Yes | See PY5 | PY5 Evaluation |
| 5/31/14) | 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 conduc | ted | | | |
| PY8 (6/1/15- | 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 |
| 5/31/16) | NTG Research Results (available 11/1/2016) | All CFLs - 0.63 | N/A | N/A | Free-ridership and spillover estimated from instore 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 |

Small Business Refrigeration

| Program Year | Туре | NTGR | | Justification | Method | Source | |
|---------------------------|----------------------|---------------|-----------|--|---|-------------------------------------|--|
| r rogram roar | 1,700 | Electric | Gas | Justinoation | motrica | C 5 a. 5 c | |
| 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 | |
| (0) 1) 10 0) 01) 10) | NTG Research Results | No research o | 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 | |

Small Business Exterior Lighting

| | Program Year | Туре | NTGR | | | | | |
|--|---------------------------|-------------|----------|-----|--|---------------------------|---------------------|--|
| | | | Electric | Gas | Justification | Method | Source | |
| | 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 | |

Small Business Linear LED Lighting

| | | Туре | NTGR | | | | |
|------|------------------------|-------------|----------|-----|--|---------------------------|---------------------|
| Р | Program Year | | Electric | Gas | Justification | Method | Source |
| (1/1 | PY10 L/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 |

Small Business Lit Signage

| | | NTGR | | | | | |
|---------------------------|-------------|----------|-----|--|---------------------------|---------------------|--|
| Program Year | Туре | Electric | Gas | Justification | Method | Source | |
| 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 | |

Small Business Whole Building

| Program Year | Туре | NT | GR | | | | |
|---------------------------|-------------|--|--|------------------------------|---|--|--|
| | | Electric | Gas | Justification | Method | Source | |
| 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 | |

Private Sector Enhanced HVAC Optimization

| | | NTGR | | | | | |
|------------------------|-------------|----------|------|--|---------------------------|---------------------|--|
| Program Year | Туре | Electric | Gas | Justification | Method | Source | |
| 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 | |

Public Sector Enhanced HVAC Optimization

| | Туре | NTGR | | | | |
|---------------------------|-------------|----------|------|--|---------------------------|---------------------|
| Program Year | | Electric | Gas | Justification | Method | Source |
| 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 |

Demand-Controlled Ventilation

| Program Year | Type | NT | GR | Justification | Method | Source | |
|---------------------------|-------------|----------|------|---|----------------------|--------|--|
| Flogram Tear | Туре | Electric | Gas | Justilication | Metriou | Source | |
| 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 AlC'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 AlC'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 AlC's analysis is reasonable | N/A – Planning Value | Deemed | |

ENERGY STAR New Homes

| Program Year | Type | NT | GR | Justification | Method | Source | | |
|-------------------------|----------------------|----------|-------|---|--------------|--------|--|--|
| Flogram Tear | Туре | Electric | Gas | Justilication | Methou | Source | | |
| PY1 | Value Applied | N/A | N/A | No program | | | | |
| (6/1/08-5/31/09) | NTG Research Results | IN/A | IN/A | | | | | |
| PY2 | Value Applied | N/A | N/A | No program | | | | |
| (6/1/09-5/31/10) | NTG Research Results | IN/ A | IN/ A | No program | | | | |
| PY3 (6/1/10-5/31/11) | Value Applied | 0.80 | 0.80 | 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 | Program is a small percentage of the portfolio and does not justify EM&V dollars to estimate NTG. | N/A - Deemed | Deemed | | |

| 5 | _ | NT | GR | | | |
|-------------------------------|--|----------------------------------|----------------|---|---|-------------------|
| Program Year | Туре | Electric | Gas | Justification | Method | Source |
| | NTG Research Results | N/A | N/A | No research conducted | | |
| PY5 (6/1/12-5/31/13) | Value Applied | 0.80 | 0.80 | 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 | Value Applied | 0.80 | 0.80 | Program is a small percentage of the portfolio and does not justify EM&V dollars to estimate NTG. | N/A - Deemed | Deemed |
| (6/1/13-5/31/14) | 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 | Program is a small percentage of the portfolio and updated AIC specific value not yet available. | N/A - Deemed | Deemed |
| | NTG Research Results | No research cond | ucted | | | |
| DVO | Value Applied | Overall - 0.42 SF Only - 1.00 | 1.01 | Most recent AIC specific value available | See PY6 NTG research results | PY6 Evaluation |
| PY8 (6/1/15-5/31/16) | 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 |

Home Efficiency Standard

| Program Year | Type | NT | GR | Justification | Method | Source | |
|-------------------------|---|---|---|---|--|---|--|
| Flogram Tear | туре | Electric | Gas | Justilication | Method | Source | |
| PY1 (6/1/08-5/31/09) | Value Applied | 0.76 | N/A | Retrospective application | N/A - Deemed Value | Deemed | |
| (0/1/08-3/31/09) | NTG Research Results | N/A | N/A | No research condu | icted | | |
| 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 | Customer self-report for CFLs, faucet aerators, low flow showerheads, pipe wrap; 72 surveys | | |
| | 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 | application | completed from a population of 2,987. Secondary research for insulation and air sealing. | PY2 Evaluation | |
| 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 | y research from PY2 to in | nclude 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 ESHP – 0.92 | Insulation - 0.80 Air Sealing - 0.83 Aerators - 0.75 Showerheads - 0.82 T-Stat - 0.87* ESHP - 0.80 | Retrospective application | Customer self-report. 201 surveys completed from a population of 4,627. *The thermostat value is based on a | PY4 Evaluation | |

| Bradram Vaar | T | | NTGR | Justification | Method | Source | | | |
|-------------------------|----------------------|---|---|--|--|----------------|--|--|--|
| Program Year | Туре | Electric | Gas | Justinication | Method | Source | | | |
| | 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 | No program change or market change Previous IL EM&V NTG exists: Yes | See PY4 | PY4 Evaluation | | | |
| | NTG Research Results | No research performed | No research performed | | | | | | |
| PY6 | 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 | | | |
| (6/1/13-5/31/14) | 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 | Туре | N ⁻ | rgr - | Justification | Method | Source | |
|---------------------------|----------------------|---|---|---------------------------------|---------|----------------|--|
| Trogram rear | Турс | Electric | Gas | Justinication | Metriou | Source | |
| | 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 | |

Moderate Income Kits

| Program Year | Туре | NTGR | | Justification | Method | Source | |
|---------------------------|---------------|----------|-----|--|--------------|--------|--|
| - rogram roan | | Electric | Gas | Justinication | metriod | Source | |
| 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 | |

Rural Efficiency Kits

| Program | _ | NTG | SR ST | | | | | | | |
|-------------------------------|--|--|--|---|---|------------------------------------|--|--|--|--|
| Year | Туре | Electric | Gas | Justification | Method | Source | | | | |
| PY1 - PY5 | N/A - No program | | | | | | | | | |
| PY6 (6/1/13- | 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) | | | | |
| 5/31/14) | NTG Research Results | No research conducted | | | | | | | | |
| Value Applied PY7 (6/1/14- | | CFLs - 0.85 Showerheads - 0.95 Faucet aerators - 1.00 Water heater temp adjustment - 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 | | | | |
| 5/31/15) | 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 | | | | |
| 3/31/10) | 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 Type | | NTG | iR | luntification | Mathad | Course |
|--------------|----------|---|---------------|---------------|--------|--------|
| Year Type | Electric | Gas | Justification | Method | Source | |
| | | 1.0gpm Bath. Faucet Aerator – 1.08 2.0gpm Kitchen Faucet Aerator – 0.99 Hot Water Temp Card Therm. – 1.13 | · · | | | |

Elementary Education Kits

| Program Year | Type | NTG | iR | Justification | Method | Sauraa |
|--------------------------|-------------|--|--|---------------|--|-----------------------|
| | Туре | Electric | Gas | Justilication | Method | Source |
| 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 | specific | Avg. of Values from Similar Programs (SAG consensus values for PY9 School Kits Program) | Secondary research |

Online Assessment Kits

| Dragram Voor Tuna | | NTGR | | Justification | Mathad | Course |
|-------------------------------|------------------|---|--|--|--|-----------------------|
| Program Year Type | Type Electric Ga | | Justification | Method | Source | |
| PY10 (1/1/18- 12/31/18) | Recommended | LEDs – 0.70 Other Non-Lighting Measures – 0.90 | Other Non- Lighting Measures – 0.90 | specific, and unpublished evaluations of similar programs for another Midwestern | Secondary research: Evaluation of an Online Kits Program offered by another Midwestern utility | Secondary research |

LED Awareness Kits

| Dungung Voor | Time | NTGR | | lugaising at in m | Mathad | Source | |
|----------------------------|-------------|----------------|--------|--|--------------------------------------|---|--|
| Program Year Type Electric | | Electric | Gas | Justification | Method | | |
| PY10 (1/1/18-12/31/18) | Recommended | LEDs - 0.85 | I IN/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 | |

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Savings through Efficient Products (STEP)

| | | NTGR | | | | | |
|---------------------------|-------------|----------|------|---|--------------------|---|--|
| Program Year Type | | Electric | Gas | Justification | Method | Source | |
| 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 | |

Community LED Distribution

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

Single-Family Moderate Income

| Program Year | T | NT | GR | lundification | Method | Source |
|-------------------------------|-------------|---|---|---|--|-----------------------------------|
| | Туре | Electric | Gas | Justification | | |
| 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 |

Large C&I

| Program Year | Туре | NTGR | | Justification | Method | Source | |
|-------------------------|-------------|----------|------|--|--|--|--|
| | | Electric | Gas | Justilication | Metilou | Source | |
| PY7 (6/1/14-5/31/15) | Recommended | 0.72 | 0.72 | 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 | Туре | NTGR | | Justification | Method | Source |
|-------------------------|--|---|-----|-------------------------------------|--|----------------|
| Flografii fear | | Electric | Gas | Justilication | Wethou | Source |
| 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 |
| 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 | Updated to reflect primary research | See PY6 | PY6 Evaluation |

Residential Efficient Products

| Due sue ve Veeu | T | NTGR | | lucatification | Mathad | Carrier | |
|-------------------------|--|---|--------|--|--|----------------|--|
| Program Year | Туре | Electric | Gas | Justification | Method | Source | |
| PY1 | Value Applied | N/A | N1 / A | No program | | | |
| (6/1/08-5/31/09) | NTG Research Results | N/A | N/A | | | | |
| PY2 | Value Applied | N/A | N/A | No program | | | |
| (6/1/09-5/31/10) | NTG Research Results | | 1.4/. | | | | |
| 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. | | Deemed | |
| | NTG Research Results | N/A N/A No research conducted | | No research conducted | | | |
| PY4 | 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 | Customer self-report. 190 surveys completed from a population of 12,117. | PY4 Evaluation | |
| (6/1/11-5/31/12) | 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 | application | | | |
| 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 | 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 | | | |

| Drogram Voor | Туре | NTGR | | lustification | Method | Cauraa | |
|-------------------------|----------------------|---|-----|--|---------|----------------|--|
| Program Year | | Electric | Gas | Justification | Method | Source | |
| 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 | | 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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