

ComEd Programs NTG Approach for EPY5 and EPY6

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Program	Business Standard Incentive
NTG EPY1	<p>NTG 0.67 Free ridership 33% Spillover 0% Method: Customer self-report. 95 interviews completed covering 101 projects from a population of 455 projects.</p>
NTG EPY2	<p>NTG 0.74 Free ridership 27% Spillover 1% Method: Customer self-report. 90 interviews completed covering 114 projects from a population of 1,739 projects. Enhanced method. Ten trade allies called for 11 participants and their responses factored in to the customer free ridership calculation.</p>
NTG EPY3	<p>NTG 0.72 Free ridership 28% Spillover 0% Method: Customer self-report. 108 interviews completed covering 292 projects from a population of 3,794 projects. Enhanced method. Two trade allies and three account managers were called for five participants and their responses factored in to the customer free ridership calculation.</p>
NTG EPY4	<p>NTG 0.70 Free ridership 31% Spillover 1% Method: Customer self-report. 110 interviews completed covering 166 projects from a population of 4,603 projects. Enhanced method. Two trade allies called for two participants and their responses factored in to the customer free ridership calculation. NTGR (free-ridership only): All lighting =0.70 (90/±5%); Lighting, no T12s reported in base case 0.66 (90/±9%); Lighting, T12s reported in base case 0.80 (90/±14%) Non-Lighting = 0.63 (90/±16%).</p>
EPY5 EM&V Recommendation	<p>Evaluation recommends deeming the NTG ratio. Source: EPY3 NTG of 0.72. Justification:</p> <ul style="list-style-type: none"> • Program change: No material change. • Market change: No material change. • New Program: No • Previous EM&V NTG exists: Yes
EPY6 EM&V Recommendation	<p>Evaluation recommends deeming the NTG ratio. Source: EPY4 NTG of 0.70. Justification:</p> <ul style="list-style-type: none"> • Program change: No material change. • Market change: No material change. • New Program: No • Previous EM&V NTG exists: Yes

Program	Custom
NTG EPY1	NTG 0.72 Free ridership 28% Spillover 0% Method: Customer self-report. 24 surveys completed from a population of 88.
NTG EPY2	NTG 0.76 Free ridership 24% Spillover 0% Method: Customer self-report. 20 surveys completed from a population of 345.
NTG EPY3	NTG 0.56 for kWh and 0.46 for kW Free ridership 28% Spillover 0% Method: Customer self-report. 67 surveys completed from a population of 887.
NTG EPY4	NTG 0.61 for kWh and 0.64 for kW Free ridership 39% Spillover 0% Method: Customer self-report. 63 surveys completed from a population of 367.
PY5 EM&V Recommendation	Evaluation recommends retrospective application of the NTG ratio. Source: Participant self-report survey Justification: <ul style="list-style-type: none"> • Program change: Yes. Reduction/change in Custom program scope as specific market segments/end-uses are assigned to new programs (e.g., Industrial Systems, Data Centers and Commercial Real Estate). Change in Incentive levels for lighting projects. • Market change: Yes. Addition of three new business programs (Industrial Systems, Data Centers and Commercial Real Estate) which include Custom element reduces the scope of the markets addressed by the Custom program, due to the elimination of these segments. • New Program: No • Previous EM&V NTG exists: Yes • Other: The very nature of the Custom program makes it a poor candidate for deeming NTG values. Year to year, the Custom program is comprised of a unique and changing mix of sizes and types of Custom projects. A few large, unique projects can dominate NTG values in a given year. As a result, no one year can be said to be representative of subsequent years.
PY6 EM&V Recommendation	Evaluation recommends retrospective application of the NTG ratio. Source: Participant self-report survey. Justification: <ul style="list-style-type: none"> • Program change: Yes. Reduction/change in Custom program scope as specific market segments/end-uses are assigned to new programs (e.g., Industrial Systems, Data Centers and Commercial Real Estate). Change in Incentive levels for lighting projects. • Market change: Yes. Addition of three new business programs (Industrial Systems, Data Centers and Commercial Real Estate) which include Custom element reduces the scope of the markets addressed by the Custom program, due to the elimination of these segments. • New Program: No

	<ul style="list-style-type: none">• Previous EM&V NTG exists: Yes• Other: The very nature of the Custom program makes it a poor candidate for deeming NTG values. Year to year, the Custom program is comprised of a unique and changing mix of sizes and types of Custom projects. A few large, unique projects can dominate NTG values in a given year. As a result, no one year can be said to be representative of subsequent years.
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Program	Data Centers Efficiency
NTG EPY1	Program did not exist
NTG EPY2	Program did not exist
NTG EPY3	Program did not exist
NTG EPY4	<p>NTG 0.43 for kWh and 0.63 for kW (EPY4 pilot program)</p> <p>Free ridership 57%</p> <p>Spillover 0%</p> <p>Method: Customer self-report. 2 surveys completed from a population of 2.</p>
PY5 EM&V Recommendation	<p>Evaluation recommends retrospective application of the NTG ratio.</p> <p>Source: Participant self-report survey</p> <p>Justification:</p> <ul style="list-style-type: none"> • Program change: Yes • Market change: Yes • New Program: Yes (Since EPY4 was a pilot program and had only two participants in the program) • Previous EM&V NTG exists: No (EPY4 Program NTG result is not representative due to the very small sample size – the EPY4 NTG results were based on only two participants. No EM&V NTG exists in EPY3)
PY6 EM&V Recommendation	<p>Evaluation recommends retrospective application of the NTG ratio.</p> <p>Source: Participant self-report survey.</p> <p>Justification:</p> <ul style="list-style-type: none"> • Program change: Yes. (EPY4 was a pilot program) • Market change: Yes (Since EPY4 did not include any IT equipment (e.g. servers) type projects) • New Program: Yes (Since EPY4 was a pilot program and had only two participants in the program) • Previous EM&V NTG exists: No (EPY4 Program NTG result is not representative due to the very small sample size – the EPY4 NTG results were based on only two participants) • Other: The very nature of the Data Centers program makes it a poor candidate for deeming NTG values. Year to year, the program is expected to comprise of changing mix of measures, sizes and types of projects. For example, in one year the projects may be dominated by IT equipment (server) type projects and another year may consist of HVAC type projects. A few large projects can dominate NTG values in a given year. As a result, no one year can be said to be representative of subsequent years.

Program	Smart Lighting Discounts
NTG EPY1	<p>NTG 0.69 Free ridership 38% Spillover 7% Method: Customer self-report. Based on phone surveys with 100 coupon participants and 56 Gen Pop identified participants.</p>
NTG EPY2	<p>NTG 0.58 Free ridership 48% Spillover 6% Method: Average of two customer self-report methods (based on general population survey [201 completes] and in-store intercept surveys [381 completes]). A supplier self-report method (22 surveys) and a revealed preference demand model method were also employed and resulted in lower NTGR estimates but were believed to be less accurate methods.</p>
NTG EPY3	<p>NTG 0.71 Free ridership 31% Spillover 2% Method: A customer self-report method based on in-store intercept surveys [496 completes]. A supplier self-report method (13 surveys) and a multi-state regression model was also employed and resulted in lower NTGR estimates but were believed to be less accurate methods.</p>
NTG EPY4	<p>NTG 0.55 (Standard), 0.44 (Specialty), 0.54 (Other - Fixture/LEDs) Free ridership 47% (Standard), 58% (Specialty), 48% (Other - Fixture/LEDs) Spillover 2% Method: Customer self-report method based on in-store intercept surveys (719 intercept surveys).</p>
PY5 EM&V Recommendation	<p>Evaluation recommends retrospective application of the NTG ratio. Source: EPY5 End-user self-report survey Justification:</p> <ul style="list-style-type: none"> • Program change: No material changes. Fixtures sales being reduced. • Market change: EISA extended to include both 75W and 100W standard bulbs and some specialty bulbs. Currently there is uncertainty regarding how the EISA standard changes are going to impact customers' purchasing decisions. If change does occur it is likely going to decrease the NTG with customers moving to CFLs on their own due to the disappearance of incandescents. Due to this uncertainty we recommend a retrospective NTG. • New Program: No • Previous EM&V NTG exists: Yes, but EPY3 likely too high due to EISA changes.
PY6 EM&V Recommendation	<p>Evaluation recommends retrospective application of the NTG ratio. Source: EPY6 End-user self-report survey Justification:</p> <ul style="list-style-type: none"> • Program change: No known material change. • Market change: EISA extended to 40W and 60W standard (and some specialty) bulbs. Again, uncertainty regarding how the EISA standard changes are going to impact customers' purchasing decisions. If change

	<p>does occur it is likely going to decrease the NTG with customers moving to CFLs on their own due to the disappearance of incandescents. Due to this uncertainty we recommend a retrospective NTG.</p> <ul style="list-style-type: none">• New Program: No• Previous EM&V NTG exists: Yes
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Program	Industrial Systems (Compressed Air in EPY4)
NTG EPY1	Program did not exist
NTG EPY2	Program did not exist
NTG EPY3	Program did not exist
NTG EPY4	<p>NTG 0.67 for kWh and 0.72 for kW (EPY4 Compressed Air)</p> <p>Free ridership 33%</p> <p>Spillover 0%</p> <p>Method: Customer self-report. 7 surveys completed from a population of 9.</p>
PY5 EM&V Recommendation	<p>Evaluation recommends retrospective application of the NTG ratio.</p> <p>Source: Participant self-report survey</p> <p>Justification:</p> <ul style="list-style-type: none"> • Program change: Yes. Addition of three new end uses. In addition to compressed air type projects, the program now consists of industrial refrigeration, process cooling and process heating end uses. Gas projects are also identified and provided incentives. (Need to confirm that gas projects are also included in this program). • Market change: Addition of three new industrial systems and customers. • New Program: No • Previous EM&V NTG exists: No (EPY4 NTG is based on Compressed Air end use only and no NTG exists in EPY3) • Other: The very nature of the Industrial Systems program makes it a poor candidate for deeming NTG values. Year to year, the program is expected to comprise of changing mix of measures, sizes of projects and projects per end use. A few large, unique projects from one end use can dominate NTG values in a given year. As a result, no one year can be said to be representative of subsequent years.
PY6 EM&V Recommendation	<p>Evaluation recommends retrospective application of the NTG ratio.</p> <p>Source: Participant self-report survey.</p> <p>Justification:</p> <ul style="list-style-type: none"> • Program change: Yes. Addition of three new end uses. In addition to compressed air type projects, the program now consists of industrial refrigeration, process cooling and process heating end uses. Gas projects are also identified and provided incentives. (Need to confirm that gas projects are also included in this program). • Market change: No material change. • New Program: No • Previous EM&V NTG exists: No (EPY4 NTG is based on Compressed Air end use only and no EM&V NTG exists in EPY3) • Other: The very nature of the Industrial Systems program makes it a poor candidate for deeming NTG values. Year to year, the program is expected to comprise of changing mix of measures, sizes of projects and projects per end use. A few large, unique projects from one end use can dominate NTG values in a given year. As a result, no one year can be said to be representative of subsequent years.

Program	MidStream Incentives Lighting
NTG EPY1	N/A No Program
NTG EPY2	N/A No Program
NTG EPY3	N/A Pilot Program – no data collection
NTG EPY4	<p>NTG 0.63 Free ridership 39% Spillover 2% Method: Customer self-report. 51 surveys completed from a population of about 5,000 (contact information available for only a small subset of participants). 11 Trade ally surveys also conducted resulting in a NTG of 0.56 but this result was not factored in to the customer free ridership calculation.</p>
PY5 EM&V Recommendation	<p>Evaluation recommends retrospective application of the NTG ratio. Source: EPY5 End-user self-report survey Justification:</p> <ul style="list-style-type: none"> • Program change: Program expanded to new measures in EPY5. • Market change: EISA extended to 75W standard (and some specialty) bulbs. • New Program: Yes • Previous EM&V NTG exists: Yes, but small sample
PY6 EM&V Recommendation	<p>Evaluation recommends retrospective application of the NTG ratio. Source: EPY6 End-user self-report survey Justification:</p> <ul style="list-style-type: none"> • Program change: TBD • Market change: EISA extended to 40 and 60W standard (and some specialty) bulbs. • New Program: Relatively • Previous EM&V NTG exists: Yes, but unsure size of EPY5 sample

Program	Business New Construction Service (Joint)
NTG EPY1	NTG was not evaluated for EPY1 because program began in EPY2.
NTG EPY2	<p>NTG 0.59</p> <p>Free ridership 41%</p> <p>Spillover 0%</p> <p>Method: Customer self-report. 14 projects were assessed from a population of 16. Enhanced method. NTG scores were adjusted for standard design national retail stores.</p>
NTG EPY3	<p>NTG 0.65 (0.69 for Systems Track and 0.54 for Comprehensive Track)</p> <p>Free ridership 35%</p> <p>Spillover 0%</p> <p>Method: Customer self-report. 13 interviews with individuals representing 15 projects out of population of 37 projects. Enhanced method. NTG scores were adjusted for standard design national retail stores.</p>
NTG EPY4	<p>NTG 0.57 (0.69 for Systems Track and 0.52 for Comprehensive Track)</p> <p>Free ridership 43%</p> <p>Spillover 0%</p> <p>Method: EPY3 value for Systems Track projects. Customer self-report for Comprehensive Track projects. Interviews with individuals representing 5 of 6 Comprehensive Track projects. Enhanced method. NTG scores were adjusted for standard design national retail stores and LEED projects.</p>
PY5 EM&V Recommendation	<p>Evaluation recommends deeming the NTG ratio for Systems Track projects and retrospective application of the NTG ratio for Comprehensive Track projects. Source: EPY3 NTG of 0.69 for Systems Track projects. Participant self-report survey for Comprehensive Track projects.</p> <p>Justification:</p> <ul style="list-style-type: none"> • Program change: Systems Track projects are being phased out and relatively few are expected in EPY5. Comprehensive Track projects have begun to include custom industrial process savings. • Market change: Illinois adopted new commercial building energy code, IECC 2012, effective January 1, 2013. This change will gradually begin to affect program throughout EPY5/GPY2 and EPY6/GPY3. No material change by the end of EPY5. • New Program: No • Previous EM&V NTG exists: Yes
PY6 EM&V Recommendation	<p>Evaluation recommends deeming the NTG ratio for both Systems Track projects and Comprehensive Track projects. Source: EPY4 NTG of 0.56 for Systems Track projects and 0.52 for Comprehensive Track projects.</p> <p>Justification:</p> <ul style="list-style-type: none"> • Program change: No material change anticipated. • Market change: Illinois adopted new commercial building energy code, IECC 2012, effective January 1, 2013. This change will gradually begin to

	<p>affect program throughout EPY5/GPY2 and EPY6/GPY3. No material change by the end of EPY6.</p> <ul style="list-style-type: none">• New Program: No• Previous EM&V NTG exists: Yes
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Program	Retro-Commissioning (Joint)
NTG EPY1	<p>NTG 0.8 Free ridership 0% Spillover 0% Method: Program <i>ex ante</i> assumption. Customer self-report. Two completed surveys from a population of four participants bracketed the assumed NTG. Basic method.</p>
NTG EPY2	<p>NTG 0.916 Free ridership 8.4% Spillover 0% Method: Customer self-report. Five surveys completed from an attempted census of a population of thirteen. Basic method.</p>
NTG EPY3	<p>NTG 0.713 Free ridership 28.7% Spillover 0% Method: Customer self-report. Eight surveys completed from an attempted census of a population of 34 participants. Basic method.</p>
NTG EPY4	<p>NTG 0.916 Free ridership 0% Spillover 0% Method: Program <i>ex ante</i> assumption and stipulated for EPY4. NTG based on EPY2 research. EPY3 research rejected due to small ratio of completed surveys. Basic method.</p>
PY5 EM&V Recommendation	<p>NTG 1.04 Free ridership 9.7% Spillover 13.6% Method: Evaluation recommends deeming the NTG ratio. Source: EPY4 NTG of 1.04. Customer and service provider self-report. NTG based on EPY4 research – 25 of 39 participants and eight of nine service providers surveyed. Enhanced method. Participant and Service Provider spill-over researched. Justification:</p> <ul style="list-style-type: none"> • Program change: No material change. • Market change: Market evolving with service providers reaching outside of the program for work and increasing resources to deliver. • New Program: No • Previous EM&V NTG exists: Yes
PY6 EM&V Recommendation	<p>Evaluation recommends deeming the NTG ratio for EPY5 and EPY6 based on EPY4 research. Research NTG again in EPY6 for prospective deeming in future years – two years at a time Justification:</p> <ul style="list-style-type: none"> • Program change: No material change. • Market change: No material change. • New Program: No • Previous EM&V NTG exists: Yes

Program	Small Business Energy Savings (Joint)
NTG EPY1	NA
NTG EPY2	NA
NTG EPY3	NA
NTG EPY4	<p>NTG 0.95 Free ridership 5% Spillover 0% Method: Customer self-report. 84 NTG surveys completed from a population of 181. Basic method of NTG analysis was used. No spillover was found. Customer participant self-reported free-ridership was 17 percent for ComEd. Individual trade ally responses to free-ridership questions were weighted by their respective fuel-specific program savings contributions and combined for a fuel-specific overall free-ridership rate. This approach resulted in an evaluation estimate of 5 percent free-ridership for electric measures and was used to calculate the NTG of 0.95 for this ComEd program.</p>
PY5 EM&V Recommendation	<p>Evaluation recommends deeming the NTG ratio for EPY5 based on EPY4 results. Justification:</p> <ul style="list-style-type: none"> • Program change: No material change. • Market change: No material change. • New Program: No • Previous EM&V NTG exists: Yes
PY6 EM&V Recommendation	<p>Evaluation recommends deeming the NTG ratio for EPY6 based on EPY4 results. Justification:</p> <ul style="list-style-type: none"> • Program change: No material change, assuming the program size does not change significantly. • Market change: No material change. • New Program: No • Previous EM&V NTG exists: Yes

Program	Elementary Energy Education (Joint)																																									
NTG GPY1/EPY4	<table border="1"> <thead> <tr> <th data-bbox="418 275 683 478">Measure</th> <th data-bbox="683 275 800 478">Research Findings Nicor Gas-only FR</th> <th data-bbox="800 275 917 478">Research Findings Nicor Gas-only SO</th> <th data-bbox="917 275 1034 478">Research Findings Nicor Gas-only NTG</th> <th data-bbox="1034 275 1153 478">Research Findings Nicor Gas-ComEd FR</th> <th data-bbox="1153 275 1269 478">Research Findings Nicor Gas-ComEd SO</th> <th data-bbox="1269 275 1446 478">Research Findings Nicor Gas-ComEd NTG</th> </tr> </thead> <tbody> <tr> <td data-bbox="418 478 683 531">Showerheads</td> <td data-bbox="683 478 800 531">39%</td> <td data-bbox="800 478 917 531">7%</td> <td data-bbox="917 478 1034 531">68%</td> <td data-bbox="1034 478 1153 531">22%</td> <td data-bbox="1153 478 1269 531">19%</td> <td data-bbox="1269 478 1446 531">96%</td> </tr> <tr> <td data-bbox="418 531 683 583">Kitchen Aerators</td> <td data-bbox="683 531 800 583">33%</td> <td data-bbox="800 531 917 583">2%</td> <td data-bbox="917 531 1034 583">69%</td> <td data-bbox="1034 531 1153 583">18%</td> <td data-bbox="1153 531 1269 583">14%</td> <td data-bbox="1269 531 1446 583">97%</td> </tr> <tr> <td data-bbox="418 583 683 636">Bathroom Aerators</td> <td data-bbox="683 583 800 636">35%</td> <td data-bbox="800 583 917 636">7%</td> <td data-bbox="917 583 1034 636">71%</td> <td data-bbox="1034 583 1153 636">22%</td> <td data-bbox="1153 583 1269 636">9%</td> <td data-bbox="1269 583 1446 636">87%</td> </tr> <tr> <td data-bbox="418 636 683 688">CFLs</td> <td data-bbox="683 636 800 688">NA</td> <td data-bbox="800 636 917 688">NA</td> <td data-bbox="917 636 1034 688">NA</td> <td data-bbox="1034 636 1153 688">53%</td> <td data-bbox="1153 636 1269 688">31%</td> <td data-bbox="1269 636 1446 688">78%</td> </tr> </tbody> </table> <p data-bbox="418 688 1446 877"> NTG 0.68 - 0.96 (varies by measure and participant group) Free ridership 18-53% Spillover 7-19% Method: Customer self-report, 223 surveys completed from a population of 9,972. </p>							Measure	Research Findings Nicor Gas-only FR	Research Findings Nicor Gas-only SO	Research Findings Nicor Gas-only NTG	Research Findings Nicor Gas-ComEd FR	Research Findings Nicor Gas-ComEd SO	Research Findings Nicor Gas-ComEd NTG	Showerheads	39%	7%	68%	22%	19%	96%	Kitchen Aerators	33%	2%	69%	18%	14%	97%	Bathroom Aerators	35%	7%	71%	22%	9%	87%	CFLs	NA	NA	NA	53%	31%	78%
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GPY2/EPY5 EM&V Recommendation	<p data-bbox="418 877 1446 909">Evaluation recommends deeming the NTG ratio.</p> <table border="1"> <thead> <tr> <th data-bbox="418 909 683 1113">Measure</th> <th data-bbox="683 909 800 1113">Research Findings Nicor Gas-only FR</th> <th data-bbox="800 909 917 1113">Research Findings Nicor Gas-only SO</th> <th data-bbox="917 909 1034 1113">Research Findings Nicor Gas-only NTG</th> <th data-bbox="1034 909 1153 1113">Research Findings Nicor Gas-ComEd FR</th> <th data-bbox="1153 909 1269 1113">Research Findings Nicor Gas-ComEd SO</th> <th data-bbox="1269 909 1446 1113">Research Findings Nicor Gas-ComEd NTG</th> </tr> </thead> <tbody> <tr> <td data-bbox="418 1113 683 1165">Showerheads</td> <td data-bbox="683 1113 800 1165">39%</td> <td data-bbox="800 1113 917 1165">7%</td> <td data-bbox="917 1113 1034 1165">68%</td> <td data-bbox="1034 1113 1153 1165">22%</td> <td data-bbox="1153 1113 1269 1165">19%</td> <td data-bbox="1269 1113 1446 1165">96%</td> </tr> <tr> <td data-bbox="418 1165 683 1218">Kitchen Aerators</td> <td data-bbox="683 1165 800 1218">33%</td> <td data-bbox="800 1165 917 1218">2%</td> <td data-bbox="917 1165 1034 1218">69%</td> <td data-bbox="1034 1165 1153 1218">18%</td> <td data-bbox="1153 1165 1269 1218">14%</td> <td data-bbox="1269 1165 1446 1218">97%</td> </tr> <tr> <td data-bbox="418 1218 683 1270">Bathroom Aerators</td> <td data-bbox="683 1218 800 1270">35%</td> <td data-bbox="800 1218 917 1270">7%</td> <td data-bbox="917 1218 1034 1270">71%</td> <td data-bbox="1034 1218 1153 1270">22%</td> <td data-bbox="1153 1218 1269 1270">9%</td> <td data-bbox="1269 1218 1446 1270">87%</td> </tr> <tr> <td data-bbox="418 1270 683 1323">CFLs</td> <td data-bbox="683 1270 800 1323">NA</td> <td data-bbox="800 1270 917 1323">NA</td> <td data-bbox="917 1270 1034 1323">NA</td> <td data-bbox="1034 1270 1153 1323">53%</td> <td data-bbox="1153 1270 1269 1323">31%</td> <td data-bbox="1269 1270 1446 1323">78%</td> </tr> </tbody> </table> <p data-bbox="418 1323 1446 1583"> Source: GPY1/EPY4. Justification: <ul data-bbox="470 1428 974 1583" style="list-style-type: none"> • Program change: No material change. • Market change: No material change. • New Program: No • Previous EM&V NTG exists. </p>							Measure	Research Findings Nicor Gas-only FR	Research Findings Nicor Gas-only SO	Research Findings Nicor Gas-only NTG	Research Findings Nicor Gas-ComEd FR	Research Findings Nicor Gas-ComEd SO	Research Findings Nicor Gas-ComEd NTG	Showerheads	39%	7%	68%	22%	19%	96%	Kitchen Aerators	33%	2%	69%	18%	14%	97%	Bathroom Aerators	35%	7%	71%	22%	9%	87%	CFLs	NA	NA	NA	53%	31%	78%
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PY6 EM&V Recommendation	<p data-bbox="418 1583 1446 1614">Evaluation recommends deeming the NTG ratio.</p> <p data-bbox="418 1614 1446 1646">Source: GPY1/EPY4, as above.</p> <p data-bbox="418 1646 1446 1837"> Justification: <ul data-bbox="470 1680 974 1837" style="list-style-type: none"> • Program change: No material change. • Market change: No material change. • New Program: No • Previous EM&V NTG exists: Yes </p>																																									

Program	Home Energy Savings (Single Family Retrofit) (Joint)																																											
NTG EPY1	<p>NTG 0.80 Free ridership 0.20 Spillover NA Method: ComEd Program Assumption. The EPY1 evaluation did not estimate the net to gross ratio. The value of 80% is drawn from the program plan presented in ComEd’s 2008-2010 Energy Efficiency and Demand Response Plan (November 15, 2007). Page D-2 of the ComEd plan provides a footnote stating the net to gross ratio of 80% is drawn from the California Energy Efficiency Policy Manual, version 2 (2003).</p>																																											
NTG EPY2	<p>NTG 0.87 Free ridership 26% Spillover 3.5% Method: Customer self-reports. 130 surveys completed from a population of 760.</p> <table border="1" data-bbox="695 709 1203 1003"> <thead> <tr> <th>Measure</th> <th>NTG Ratio</th> <th>FR</th> <th>SO</th> </tr> </thead> <tbody> <tr> <td>CFL</td> <td>0.72</td> <td>34%</td> <td>6.4%</td> </tr> <tr> <td>Kitchen Aerators</td> <td>0.97</td> <td>3%</td> <td>0.0%</td> </tr> <tr> <td>Bathroom Aerators</td> <td>0.97</td> <td>3%</td> <td>0.0%</td> </tr> <tr> <td>Showerheads</td> <td>0.93</td> <td>8%</td> <td>0.5%</td> </tr> <tr> <td>Pipe Insulation</td> <td>1.02</td> <td>7%</td> <td>9.0%</td> </tr> <tr> <td>Total Direct Install</td> <td>0.87</td> <td>26%</td> <td>3.5%</td> </tr> </tbody> </table>	Measure	NTG Ratio	FR	SO	CFL	0.72	34%	6.4%	Kitchen Aerators	0.97	3%	0.0%	Bathroom Aerators	0.97	3%	0.0%	Showerheads	0.93	8%	0.5%	Pipe Insulation	1.02	7%	9.0%	Total Direct Install	0.87	26%	3.5%															
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NTG EPY3	<p>NTG 0.74 Free ridership 27% Spillover 4% Method: Customer self-reports. 122 full participant (direct install and weatherization measures) and direct install-only participant surveys completed from a population of 413 full participants and 962 direct install-only participants.</p> <table border="1" data-bbox="688 1220 1211 1740"> <thead> <tr> <th>Measure</th> <th>NTG</th> <th>FR</th> <th>SO</th> </tr> </thead> <tbody> <tr> <td>Compact Fluorescent Bulbs</td> <td>0.68</td> <td>34%</td> <td>3%</td> </tr> <tr> <td>Air Sealing</td> <td>0.99</td> <td>8%</td> <td rowspan="10">7%</td> </tr> <tr> <td>Attic Insulation</td> <td>0.98</td> <td>9%</td> </tr> <tr> <td>Floored Attic Insulation</td> <td>0.98</td> <td>9%</td> </tr> <tr> <td>Exterior Wall Insulation</td> <td>0.96</td> <td>11%</td> </tr> <tr> <td>Sloped Insulation</td> <td>0.96</td> <td>11%</td> </tr> <tr> <td>Knee Wall Insulation</td> <td>0.96</td> <td>11%</td> </tr> <tr> <td>Crawl Space Insulation</td> <td>0.96</td> <td>11%</td> </tr> <tr> <td>Duct Insulation</td> <td>0.99</td> <td>8%</td> </tr> <tr> <td>Rim Joist Insulation</td> <td>0.96</td> <td>11%</td> </tr> <tr> <td>Seal and Repair Ducts</td> <td>0.93</td> <td>-</td> </tr> <tr> <td>Overall</td> <td>0.74</td> <td>27%</td> <td>4%</td> </tr> </tbody> </table>	Measure	NTG	FR	SO	Compact Fluorescent Bulbs	0.68	34%	3%	Air Sealing	0.99	8%	7%	Attic Insulation	0.98	9%	Floored Attic Insulation	0.98	9%	Exterior Wall Insulation	0.96	11%	Sloped Insulation	0.96	11%	Knee Wall Insulation	0.96	11%	Crawl Space Insulation	0.96	11%	Duct Insulation	0.99	8%	Rim Joist Insulation	0.96	11%	Seal and Repair Ducts	0.93	-	Overall	0.74	27%	4%
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<p>NTG EPY4</p>	<p>Overall NTG* 0.83 (Preliminary) Overall Free ridership* 18% (Preliminary) Overall Spillover* 1% (Preliminary) <i>*A final draft of the report has not been submitted yet, thus these values may change.</i> Method: Customer self-reports. 54 full-participant (direct Install and weatherization measures) surveys completed from a population of 1,081 audits and 320 full-participants.</p> <table border="1" data-bbox="618 436 1279 1499"> <thead> <tr> <th></th> <th>Measure</th> <th>NTG*</th> <th>Free Ridership*</th> <th>Spillover*</th> </tr> </thead> <tbody> <tr> <td rowspan="13">Direct-Install Measures</td> <td>9 Watt CFL</td> <td>0.79</td> <td>0.25</td> <td>0.04</td> </tr> <tr> <td>14 Watt CFL</td> <td>0.79</td> <td>0.25</td> <td>0.04</td> </tr> <tr> <td>19 Watt CFL</td> <td>0.79</td> <td>0.25</td> <td>0.04</td> </tr> <tr> <td>23 Watt CFL</td> <td>0.79</td> <td>0.25</td> <td>0.04</td> </tr> <tr> <td>9 Watt Globe CFL</td> <td>0.79</td> <td>0.25</td> <td>0.04</td> </tr> <tr> <td>Low Flow Shower Head</td> <td>0.93</td> <td>0.07</td> <td>0.00</td> </tr> <tr> <td>Kitchen Aerator</td> <td>1.00</td> <td>0.01</td> <td>0.01</td> </tr> <tr> <td>Bathroom Aerator</td> <td>1.00</td> <td>0.01</td> <td>0.01</td> </tr> <tr> <td>Hot Water Temperature Setback</td> <td>0.88</td> <td>0.12</td> <td>0.00</td> </tr> <tr> <td>Pipe Insulation</td> <td>0.89</td> <td>0.18</td> <td>0.07</td> </tr> <tr> <td>Programmable Thermostat</td> <td>0.85</td> <td>-</td> <td>-</td> </tr> <tr> <td>Programmable Thermostat Education</td> <td>0.85</td> <td>-</td> <td>-</td> </tr> <tr> <td rowspan="5">Retrofit Measures</td> <td>Attic Insulation</td> <td>0.75</td> <td>0.27</td> <td>0.02</td> </tr> <tr> <td>Wall Insulation</td> <td>0.78</td> <td>0.22</td> <td>0.00</td> </tr> <tr> <td>Floor Insulation (Other)</td> <td>0.76</td> <td>0.24</td> <td>0.00</td> </tr> <tr> <td>Duct Insulation & Sealing</td> <td>0.80</td> <td>-</td> <td>-</td> </tr> <tr> <td>Air Sealing</td> <td>0.84</td> <td>0.16</td> <td>0.00</td> </tr> <tr> <td>Overall Program</td> <td></td> <td>0.83</td> <td>0.18</td> <td>0.01</td> </tr> </tbody> </table> <p><i>*A final draft of the report has not been submitted yet, thus these values may change.</i></p>		Measure	NTG*	Free Ridership*	Spillover*	Direct-Install Measures	9 Watt CFL	0.79	0.25	0.04	14 Watt CFL	0.79	0.25	0.04	19 Watt CFL	0.79	0.25	0.04	23 Watt CFL	0.79	0.25	0.04	9 Watt Globe CFL	0.79	0.25	0.04	Low Flow Shower Head	0.93	0.07	0.00	Kitchen Aerator	1.00	0.01	0.01	Bathroom Aerator	1.00	0.01	0.01	Hot Water Temperature Setback	0.88	0.12	0.00	Pipe Insulation	0.89	0.18	0.07	Programmable Thermostat	0.85	-	-	Programmable Thermostat Education	0.85	-	-	Retrofit Measures	Attic Insulation	0.75	0.27	0.02	Wall Insulation	0.78	0.22	0.00	Floor Insulation (Other)	0.76	0.24	0.00	Duct Insulation & Sealing	0.80	-	-	Air Sealing	0.84	0.16	0.00	Overall Program		0.83	0.18	0.01
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<p>PY5 EM&V Recommendation</p>	<p>Evaluation recommends retrospective application of the NTG ratio. Source: Participant and trade ally self-report survey. Justification:</p> <ul style="list-style-type: none"> • Program change: Incentive levels have changed. New program partner promoting the program in a new way. • Market change: No material change. • New Program: No • Previous EM&V NTG exists: Yes 																																																																																

PY6 EM&V Recommendation	Evaluation recommends deeming the NTG ratio based on EPY5 NTG research. Source: EPY5 NTG. Justification: <ul style="list-style-type: none">• Program change: Assuming no material change.• Market change: Assuming no material change.• New Program: No• Previous EM&V NTG exists: Yes• NTG was retrospective in EPY5 and so the EPY4 NTG is no longer the best reflection of the appropriate NTG rate to apply prospectively.
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Program	Fridge Freezer Recycling Rewards
NTG EPY1	<p>NTG 0.70 for refrigerators, 0.83 for freezers, 1.0 for Room AC units</p> <p>Free ridership 30% for refrigerators, 17% for freezers, 0% for Room AC units</p> <p>Spillover 0% for all measure types</p> <p>Method: Customer self-report. 100 surveys completed (70 refrigerator respondents, 30 freezers), from attempted calls with 498 respondents</p>
NTG EPY2	<p>NTG 0.73 for refrigerators, 0.82 for freezers, 0.72 for Room AC units</p> <p>Free ridership 27% for refrigerators, 18% for freezers, 28% for Room AC units</p> <p>Spillover 0% for all measure types</p> <p>Method: Customer self-report. 152 surveys completed – 114 Refrigerator, 38 Freezer, 30 Room AC Recyclers, from attempted calls with 744 respondents</p>
NTG EPY3	<p>NTG 0.67 for refrigerators, 0.75 for freezers, 0.70 for Room AC units</p> <p>Free ridership 33% for refrigerators, 25% for freezers, 30% for Room AC units</p> <p>Spillover 0% for all measure types</p> <p>Method: Customer self-report. 202 surveys completed – 151 Refrig., 51 Freezer, 30 Room AC Recyclers, from attempted calls with 1,369 respondents</p>
NTG EPY4	<p>NTG 0.73 for refrigerators, 0.77 for freezers, and 0.58 for Room AC units</p> <p>Free ridership 27% for refrigerators, 23% for freezers, 42% for Room AC units</p> <p>Spillover 0% for all measure types</p> <p>Method: Customer and participating retailer self-reports. Weighted average from combining results from both sources. 200 surveys completed with participating customers –150 Refrig., 50 Freezer, 19 Room AC Recyclers, from attempted calls with 2,225 respondents</p>
PY5 EM&V Recommendation	<p>Evaluation recommends partially deeming the NTG ratio, based on EPY3 results. However, an additional term will be added in EPY5 to account for program-induced replacements, as specified in the TRM. This term was not included in the EPY3 evaluation.</p> <p>Source: EPY3 results of 0.67 for refrigerators, 0.75 for freezers, 0.70 for Room AC units to account for all program effects except for program-induced replacements, This latter term will require additional research during EPY5 to establish a value for it.</p> <p>Justification:</p> <ul style="list-style-type: none"> • Program change: No material change. • Market change: No material change. • New Program: No • Previous EM&V NTG exists: Yes • Other: Need to add term for program induced replacements (specified in TRM)
PY6 EM&V Recommendation	<p>Evaluation recommends deeming the NTG ratio, based on EPY4 results for all program effects except for program-induced replacements, plus a EPY5 program-induced replacements factor. This term was not included in the EPY4 evaluation.</p> <p>Source: Sum of EPY4 results of 0.73 for refrigerators, 0.77 for freezers, and 0.58 for Room AC units to account for all program effects except for program-induced replacements, plus EPY5 program-induced replacements factor.</p> <p>Justification:</p> <ul style="list-style-type: none"> • Program change: No material change.

	<ul style="list-style-type: none">• Market change: No material change.• New Program: No• Previous EM&V NTG exists: Yes• Other: Need to include term for program induced replacements (specified in TRM)
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Program	Multifamily Home Energy Savings (Joint)
NTG EPY1	<p>NTG 0.80</p> <p>Free ridership n/a</p> <p>Spillover n/a</p> <p>Method: ComEd planning documents. (No EMV NTG analysis).</p>
NTG EPY2	<p>Program NTG 0.88</p> <p>Measure Specific:</p> <p>CFLs NTG 0.81</p> <p>CFLs Free Ridership 27%</p> <p>CFLs Spillover 18%</p> <p>Water Efficient Showerheads NTG 0.93</p> <p>Water Efficient Showerheads Free Ridership 9%</p> <p>Water Efficient Showerheads Spillover 2%</p> <p>Water Efficient Aerators NTG 0.94</p> <p>Water Efficient Aerators Free Ridership 6%</p> <p>Water Efficient Aerators Spillover 0%</p> <p>Method: Participant Self-Report. CATI telephone survey with 75 participating tenants (90/9).</p>
NTG EPY3	<p>Program NTG 0.90</p> <p>Measure Specific:</p> <p>CFLs NTG 0.81</p> <p>CFLs Free Ridership 20%</p> <p>CFLs Spillover 1%</p> <p>Water Efficient Showerheads NTG 0.93</p> <p>Water Efficient Showerheads Free Ridership 7%</p> <p>Water Efficient Showerheads Spillover 0%</p> <p>Water Efficient Aerators NTG 0.94</p> <p>Water Efficient Aerators Free Ridership 6%</p> <p>Water Efficient Aerators Spillover 0%</p> <p>Method: Participant self-report. CATI telephone survey with 140 participating tenants (90/10).</p>
NTG EPY4	<p>Verification report:</p> <p>Program NTG 0.83</p> <p>Measure Specific:</p> <p>CFLs NTG 0.81</p> <p>Water Efficiency Measures (Aerators + Showerheads) NTG 0.93</p> <p>Verification Method: Applied EPY2 evaluation findings according to NTG Framework.</p> <p>Research Findings:</p> <p>Program NTG 0.97</p> <p>CFLs NTG 0.98</p> <p>Water Efficiency Measures (Aerators + Showerheads) NTG 0.92</p> <p>Water Efficient Showerheads NTG 0.91</p> <p>Water Efficient Aerators NTG 0.93</p> <p>Research Method: Participant self-report. CATI telephone survey with participating decision-makers (37 property managers)</p>

<p>EPY5 EM&V Recommendation</p>	<p>Evaluation recommends deeming the NTG ratio. Source: EPY3 NTG CFLs NTG 0.81 Water Efficient Showerheads NTG 0.93 Water Efficient Aerators NTG 0.94 Justification: <ul style="list-style-type: none"> • Program change: No material change. • Market change: No material change. • New Program: No • Previous EM&V NTG exists: Yes </p>
<p>EPY6 EM&V Recommendation</p>	<p>Evaluation recommends deeming the NTG ratio. Source: EPY4 NTG CFLs NTG 0.98 Water Efficiency Measures (Aerators + Showerheads) NTG 0.92 Justification: <ul style="list-style-type: none"> • Program change: No material change. • Market change: No material change. • New Program: No • Previous EM&V NTG exists: Yes </p>

Program	Clothes Washer Rebate
NTG EPY1	Program did not exist
NTG EPY2	Program did not exist
NTG EPY3	Program did not exist
NTG EPY4	<p>NTG 0.678</p> <p>Free ridership 32.2%</p> <p>Spillover 0%</p> <p>Method: Customer self-reports. 140 interviews completed covering 120 single family participants and 20 multi-family participants. Enhanced method. Two trade allies called for two participants and their responses factored in to the customer free ridership calculation.</p>
EPY5 EM&V Recommendation	<p>Evaluation recommends deeming the NTG ratio.</p> <p>Source: EPY4 NTG of 0.678.</p> <p>Justification:</p> <ul style="list-style-type: none"> • Program change: Possible program structural changes. • Market change: No material change. • New Program: No • Previous EM&V NTG exists: Yes (EPY4)
EPY6 EM&V Recommendation	<p>Evaluation recommends deeming the NTG ratio.</p> <p>Source: EPY4 NTG of 0.678.</p> <p>Justification:</p> <ul style="list-style-type: none"> • Program change: No material change. • Market change: No material change. • New Program: No • Previous EM&V NTG exists: Yes

Program	Complete System Replacement (HEER) (Joint)
NTG EPY1	CSR program not offered in EPY1
NTG EPY2	CSR program not offered in EPY1
NTG EPY3	CSR program not offered in EPY1
NTG EPY4/GPY1	NTG: 59% Free-ridership: 41% Spillover: 0% Method: Customer self-report.
EPY5/GPY2 EM&V Recommendation	Evaluation retrospective application of the NTG ratio. Source: Participant self-report survey with trade ally input Justification: <ul style="list-style-type: none"> • Program change: Program ramp-up; program only offered from January, 2012 through end of program year in EPY4/GPY1. • Market change: No material change. • New Program: No • Previous EM&V NTG exists: Yes
EPY6/GPY3 EM&V Recommendation	Evaluation recommends deeming the NTG ratio. Source: EPY5/GPY2 NTG Justification: <ul style="list-style-type: none"> • Program change: No material change. • Market change: No material change. • New Program: No • Previous EM&V NTG exists: Yes • Other: Since EPY4/GPY1 is first year of program, EPY5/GPY2 will be more representative of program going forward

Program	Residential New Construction (Joint)
NTG EPY1	N/A No Program
NTG EPY2	N/A No Program
NTG EPY3	N/A No Program
NTG EPY4	NTG not evaluated. Program just launched. No impact evaluation.
PY5 EM&V Recommendation	<p>Evaluation recommends retrospective application of net-to-gross ratio. Source: Participating builder self-report survey. Justification:</p> <ul style="list-style-type: none"> • New Program • Previous EM&V NTG does not exist
PY6 EM&V Recommendation	<p>Evaluation recommends retrospective application of net-to-gross ratio. Source: Participating builder self-report survey. Justification:</p> <ul style="list-style-type: none"> • Program change: No planned material change. However given the program is ramping up in EPY5, the EPY5 NTG value may not provide an accurate reflection of the future NTG value. • Market change: IECC 2012 came into effect as residential energy code in January, 2013. This was part of the way through EPY5, and EPY6 will be the full program year under the new code. • Previous EM&V NTG exists: Yes

Other Programs

C&I Behavioral Agentis

EM&V impact analysis (regression) will create net savings, not adjusted gross therefore it will always be retrospective.

Home Energy Report

EM&V impact analysis (regression) will create net savings, not adjusted gross therefore it will always be retrospective.

RFP-RLD C&I Thermostats

This is a third party program where the contractor is paid on net savings and so NTG will always be retrospective.

RFP-RSG Computers

This is a third party program where the contractor is paid on net savings and so NTG will always be retrospective.

RFP-Efficiency 2.0

This is a third party program where the contractor is paid on net savings and so NTG will always be retrospective. EM&V impact analysis (regression) will create net savings, not adjusted gross therefore it will always be retrospective.

Commercial Real Estate

As we understand it, this is more a target for program outreach than a program. It is new for EPY5, we have no evaluation NTG results, and we do not yet know whether the projects will be reported through Standard or Custom program.