

**Nicor Gas Energy Efficiency Program - Plan Year 6
Quarterly Report: Fourth Quarter
Response to Evaluators' Recommendations**

Program	PY Recommendation Was Made	Recommendation	Utility Perspective	Program Actions (if Applicable)	Action Implementation Date
BEER	PY4	Nicor Gas should update the ex-ante savings calculations for commercial pool covers to use TRM approved savings factors for indoor and outdoor spaces.	Nicor Gas agrees. Correct TRM values should be used and this has been corrected.	No further action required.	Effective for PY6
BEER	PY4	Nicor Gas should ensure that the description of program measures in the tracking system are consistent with deemed and custom input parameters used to generate measure savings.	Nicor Gas has worked with the IC to correct measure descriptions passed in the database.	No further action required.	Effective for PY6
EEE	PY4	The program should use the parent-guardian survey data in order to calculate custom inputs where allowed by the TRM. The differences in the custom inputs as described in Finding 3, resulted in a 79% realization rate, a decrease of 26,114 therms.	Nicor Gas agrees. For PY6, calculations are done using inputs from the parent-guardian surveys.	Done	9/1/2015
EEE	PY4	The program should calculate savings for CFLs, aerators, and showerheads for single family homes separately from multi-family homes to increase the degree of accuracy of its ex-ante savings estimates. Generally, the multi-family inputs result in higher savings numbers.	For PY6 the savings were calculated based on whether a home is single family vs multi-family.	Done	9/1/2015
EEE	PY4	The implementer should update savings estimates for the water heater setback measure using the pre- and post-temperature inputs (Tpre and Tpost) and in-service rate from the program's student survey form. This difference in pre- and post-temperature inputs resulted in a realization rate of 0.24, a difference of 1,226 therms.	For PY6 the savings are being calculated based on information from the student survey form.	Done	9/1/2015
EEE	PY4	In the future, if the program chooses to claim savings for this measure, it should include instructions on how to properly use a programmable thermostat (that is, how to use four programmed settings for daytime, night time, summer, and winter), in order to qualify under the TRM. To develop these instructions, the implementer could use EPA's EnergyStar program or other resources. The EnergyStar program provides information for consumers on how to program and which settings will save the most energy. EnergyStar has programmable thermostat guidelines (and video) on how to properly set and use a programmable thermostat. Additionally, many thermostat manufacturers (Honeywell, Lux, etc.) and home improvement stores (Lowe's, Home Depot), provide instructions and information on how to program a thermostat. There are significant savings associated with this measure; a programmable thermostat installed in a single family home in Chicago results in savings of 62.3 therms, using the methodology from the TRM v4.0. Assuming a 2.2 percent in-service rate for this measure results in savings of 13,206 therms.	Nicor Gas agrees. However, because savings were negligible the questions have been removed from the survey.	No further action.	9/1/2015

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EEE	PY4	In order to deem a savings number for this measure to include in a future version of the TRM, Navigant recommends Nicor Gas consider collecting data from a before and after metering study for the type of shower timer contained in the kit.	Navigant is best suited to perform a metering study subject to available budget resources.	Nicor Gas will continue to collect survey data for Navigant to use in calculating savings for shower timers in the absence of metering data.	9/1/2015
EEE	PY4	In the upcoming program years, the utilities could consider offering LED lamps in place of the CFLs in the energy efficiency kits to keep customer satisfaction in the program high.	ComEd has addressed this recommendation. In PY6 the EEE kit offers one CFL and two LED's. In future years only LED's will be offered.	No further action necessary.	9/1/2015
EEE	PY4	Update the QA/QC documentation to include detail on these processes.	Nicor Gas agrees that improvements can be made to QA/QC process documentation.	<ol style="list-style-type: none"> 1. Nicor Gas will request a description of the process used by RAP for kit measure inspection. 2. Nicor Gas will confirm with RAP the process used to determine the number of kits sent to each classroom and what is done in the event that extra kits are sent. 3. Nicor Gas will work with RAP to obtain a list of teachers who receive incentives, and confirm that the number of surveys returned qualified them for incentives. 	9/1/2015
BNC	PY4	The program should exercise caution when using existing equipment as the baseline for projects completed in this program. Existing equipment should only be used in cases where a strong case can be made that the existing equipment is in good condition, has significant remaining useful life and could continue to meet the demands of the customer going forward. Otherwise, a baseline of the applicable energy code should be used.	We agree, and this is an ongoing practice of the implementation team.	Following discussions with the evaluation team about this issue in 2015, the New Construction Service formalized the process through which an existing equipment baseline would be approved. If Seventhwave identifies a project where there is a good case to be made for using an existing equipment baseline (e.g., early chiller retirement opportunity), Seventhwave will provide relevant project information to ComEd and the evaluation team and request that an exception be granted. ComEd has the sole authority to determine if use of the existing baseline condition is warranted. (See Operations Manual section on code baseline.)	11/1/2015
BNC	PY4	The evaluation team recommends that the implementation team ensures projects consistently follow the approaches set forth in ASHRE 90.1 or IECC when measuring ex-ante program savings.	We agree, and this is an ongoing practice of the implementation team.	For projects applying to the program after February 25, 2016, Seventhwave is now using the code-required window to wall ratio of 40% or lower as the baseline.	2/1/2016
BNC	PY4	We recommend using baseline systems that use the same fuel source as installed systems, regardless of the initial design or existing conditions. Alternatively, we recommend developing a procedure or protocol to evaluate fuel switching projects to ensure appropriateness.	The program's standard practice is to use the same fuel source for the baseline and proposed design. In cases where fuel switching is an open design question the customer would like us to evaluate, the program will calculate the energy savings associated with fuel switching but make the impact on incentives equal zero. Incentives for all other ECMs are based on the fuel source that is ultimately selected by the customer. The evaluation team's recommendation addresses a specific project where this standard practice was not followed, and thus no change in program practice is required.	To ensure that all ECMs are based on the fuel that is ultimately selected by the customer, summary reports will either make the fuel switch the very first measure (with no associated incentives) or exclude the change in fuel entirely from the final version of the energy analysis.	12/1/2015

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RNC	PY4	Work with builders and raters to improve areas below code, such as wall and foundation insulation levels, as well as those that are at or just above code, such as window U-values, major appliances, and cooling equipment. Specific actions could include RSR directing raters to focus on these areas or offering targeted builder trainings on these topics. These actions could help builders improve practices in these areas and achieve higher participation tiers, and may also reduce free-ridership.	During PY5/8 RSR supported energy-efficiency improvement through communications and trainings. Quarterly builder newsletters include a “building science” segment in which various technologies and/or strategies are described along with supplemental information. The program also hosted two “Selling High Performance Homes” trainings for builders. These training sessions educate builders on how to effectively sell energy-efficiency to homebuyers.	Continue to offer trainings and document the number of builders participating.	Builder newsletter first implemented July 2014 and is ongoing each quarter. Selling High Performance Homes trainings first offered November 2015 and is ongoing.
RNC	PY4	RSR should continue its new broader builder training offerings to increase exposure beyond program participants and attract a wider cross-section of the market. This could lead to market effects from non-participants, which if measured could increase spillover and NTG.	Several non-participating builders attended the Selling High Performance trainings.	Continue to offer trainings and document the number of non-participant builders attending.	Builder newsletter first implemented July 2014 and is ongoing each quarter. Selling High Performance Homes trainings first offered November 2015 and is ongoing.
RNC	PY4	Program marketing and RSR outreach to individual raters and builders should emphasize higher efficiency tiers in the new tiered program structure to move away from low-hanging fruit. This could push builders to go beyond “easy” improvements to their homes and reduce free-ridership for the higher efficiency tiers.	Quarterly builder newsletters include a “building science” segment in which various energy efficient technologies and/or strategies are described along with links to supplemental information. A 4-hour training was held in June 2016 that educated on building energy-efficient homes. Because Illinois building codes update automatically with IECC, it is not “easy” to meet program standards.	Nicor Gas will continue to offer education and trainings about the science and benefits to reaching higher levels above code. In addition, the tiered system with higher incentive levels for the higher tiers will continue.	Tiered incentives first offered in PY4 (beginning June 1, 2014). Build Smart Newsletter first implemented July 2014. SHP trainings implemented Nov. 2015.
RNC	PY4	RSR should investigate whether there are any opportunities to reduce manual data entry into HouseRater and communicate with builders about progress to keep HouseRater compatible with REM/Rate updates in a timely manner.	RSR has updated HouseRater to accept current versions of REM/Rate.	Completed. No further action required.	HouseRater 2.0 rolled out to Raters October 2016.
HES	PY4	Navigant recommends updating ex-ante calculations for showerheads and thermostats.	Nicor Gas agrees.	Ex-ante savings for showerheads and thermostats have been fixed for PY5 and PY6. A QA/QC process will be developed to check that all calculations are being done correctly at the beginning of each program year.	6/1/2015
HES	PY4	Navigant recommends updating the parameters in the tracking database for both showerhead measures. In addition, Navigant recommends adding a QC procedure for verifying the actual number of showerheads in a single-family residence if four or more are reported.	Nicor Gas agrees	Parameters in the tracking database have been updated for PY5 and PY6. A QA/QC process will be developed to check that all calculations are being done correctly at the beginning of each program year. In addition, threshold numbers to trigger additional QC have been lowered to ensure data quality.	6/1/2015
HES	PY4	If increasing ASI participants is a goal of the program, Navigant recommends increasing marketing so that more potential participants are aware of the program.	Marketing is used as a tool to drive participation and meet program goals. Overall, portfolio and program budgets are limited. In PY4 and PY5 ASI was at or near goal so additional marketing is inappropriate.	No further action required.	N/A

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HEER	PY4	Navigant recommends using the known existing AFUE value when available to calculate gross savings for early retirement furnaces. This gives the most accurate estimate of actual savings.	For early retirement furnaces, Nicor Gas' IC uses known AFUE of existing equipment to calculate savings when available. For projects where this information is unknown, the TRM default AFUE for early retirement furnaces of 64.4% is used to calculate savings. The tracking database values of 80% for all ER furnaces was an error that has been corrected.	Done	6/1/2015
HEER	PY4	The IC should be sure to use the most current version of the Illinois TRM when calculating ex ante savings estimates. This will make evaluation savings adjustments less likely.	Nicor Gas agrees. The most current version of the TRM should be applied.	Nicor Gas will ensure that the appropriate version of the TRM is applied in all calculated savings. PM's will develop a process to check that calculations are being performed correctly. This will be done in coordination with Planning, using existing TRM spreadsheets and check against data and results passed in the PUP file.	6/1/2015
HEER	PY4	QA/QC Plan should include information about how the program is using the results of the inspection and verification process in its training materials for participation contractors. If the program does not currently use the results of the inspection and verification process in its contractor training process, Navigant suggests that Nicor Gas and CLEARResult develop a plan to include them in future program years.	The QA/QC process is used to identify fraud, but has never discovered any. This process verifies that equipment has been installed but does not examine the Program any further. Because no fraud has been detected there has not been any opportunity to use the results in contractor training.	No action required by Nicor Gas unless a case of fraud is detected. At that time appropriate action will be taken.	N/A
Multi-family	PY4	Nicor Gas should regularly update the tracking system with the most current TRM approved input data. Consider updating the tracking system to accommodate the supplemental data lookup custom input variables collected from customer applications. Supplemental data supporting ex ante savings analysis should accompany the tracking database submitted for evaluation. This may save time and cost involved in repeating the savings verification process and minimize delays in evaluation reporting timeline.	Updating the tracking system to accommodate supplemental custom input data is not feasible. As done for the PY4 EM&V process, Nicor Gas will continue to provide additional data and clarification in memos as required.	Nicor Gas will provide additional data and clarifying memos when program data is provided to Navigant, or near the beginning of each program year.	N/A
Multi-family	PY4	Nicor Gas should ensure that the description of program measures in the tracking system are consistent with deemed and custom input parameters used to generate measure savings.	Nicor Gas has worked with the IC to correct measure descriptions passed in the database.	No further action required.	N/A
Multi-family	PY4	Nicor Gas should provide additional information in the tracking system for pipe insulation measures. Specify pipe location (indoor/outdoor, conditioned or unconditioned space) and the primary piping use (hot water, space heating non-circulation or recirculation and the period of use). This information was provided in the supplemental data, and should be mapped into the tracking system.	Additional information as listed is now being captured and passed to Nicor Gas in the data files.	No further action required.	N/A