

Program	PY	Recommendation	Action Completion Date	Action(s) Taken
HEER	2019	Guidehouse recommends that the implementer refer to the Illinois Technical Reference Manual (TRM) v7.0, Section 5.3.6 and compare and update ex ante algorithm and inputs with inputs outlined in this measure.	6/30/2020	Nicor Gas has switched weighted savings methodology to weighted saving approach rather than weighted baseline approach, which is calculating savings using TOS efficiency and ER efficiency separately and then weighting the savings 93%/7%.
MF	2019	Guidehouse recommends providing climate zone information for all measures installed.	6/30/2020	Nicor Gas has re-assigned climate zones for PY2019 data, and reviewed PY2020 MF data, there are no missing climate zones.
MF	2019	Guidehouse recommends that the implementer add a field to the tracking data to indicate and confirm that the system was verified to have year round recirculation or heating season recirculation as applicable for space heating pipe insulation measures.	6/30/2020	Additional information regarding the application type for the measure installed is in the "Calculation Method" field. It was not within 2019 participation file, Nicor Gas has added "Calculation Method" field into PY2020 data file.
MF	2019	Guidehouse recommends using the baseline boiler efficiency of 80% AFUE for steam boilers less than 300,000 Btu/hr and 79% Thermal Efficiency (TE) for steam boilers greater than 300,000 Btu/hr per Section 4.4.10 of the TRM v7.0.	6/30/2020	Nicor Gas has used the baseline boiler efficiency of 80% AFUE for steam boilers less than 300,000 Btu/hr in PY2020 data and will make sure to pass 79% Thermal Efficiency (TE) for steam boilers greater than 300,000 Btu/hr for future projects.
MF	2019	Guidehouse recommends updating the ex ante net savings for the advanced thermostat measure to be equal to the ex ante gross savings for the tracking projects where more than 24 months of billing data is available, Guidehouse recommends basing the regression analysis on the latest 24 months of usage data for the facility in order to avoid incorporating the effects of any undocumented past action. Guidehouse also recommends basing the HDD base temperature on the balance temperature for the facility as indicated by the therms usage at the	6/30/2020	Nicor Gas has updated the ex ante net savings for the advanced thermostat measure to be equal to the ex ante gross savings in the
MF	2019	The evaluation team recommends that the deemed NTG ratio of 1.00 be used for tracking 2020 net savings from showerhead and faucet aerator measures. When weighting the savings from Kit 1, Kit 2, and Kit 3, the average NTG ratio was 0.976 in 2019.	6/30/2020	Nicor Gas will incorporate the recommendations into our engineering review process and will utilize for future projects when appropriate. Nicor Gas is tracking savings on kit level, not by measure level. Weighting the savings from Kit 1, Kit 2, and Kit 3, the average NTG ratio of 0.976 has been retrospectively applied into 2019 ESK participation file, and Nicor Gas will use same NTG value of 0.976 to apply into 2020 dataset until further notice from the evaluator.
ESK	2019	The evaluation team recommends that Nicor Gas track savings for Kit 1, Kit 2, and 2019 Kit 3 using measure life results from 2019 findings.	6/30/2020	Nicor Gas has tracked savings for Kit 1, Kit 2, and Kit 3 using measure life results from 2019 findings, a weighted measure life 8.3 years for Kit 1, 8.8 years for Kit 2, and 8.2 years for Kit 3.
ESK	2019	The evaluation team recommends that installation rate research be conducted with Kit 4 participants to validate that the in-service rates (ISRs) for weatherization measures in the TRM are appropriate for customers who receive two kits. Evaluation acknowledges that ISR research is planned for 2020/2021 program implementation and evaluation period.	6/30/2020	ISR research for ESK program is planned for 2020/2021 program implementation and evaluation period.
IQ-SF-CC	2019	Guidehouse recommends providing data regarding the conditioning state of all duct sealing measures and using the corresponding TRM value for each project's conditioning state to estimate savings. If no data exists, we recommend evaluating savings using the conservative approach of a semi-conditioned space and a TRHeat value of 0.4 as deemed by the TRM v7.0.	6/18/2020	Nicor Gas and Resource Innovations met with Guidehouse on 4/9/20 to review calculation variances for Duct Insulation and Sealing. Following that call, Resource Innovations provided supplemental data through Nicor Gas and included data for these projects. The supplemental data provides the Equipment Location which should be used to confirm the 2020 TRF values submitted.
IQ-SF-CC	2019	Guidehouse recommends that Nicor Gas refer to equipment manufacturer and 2019 model number information when capacity is unknown.	6/18/2020	Nicor Gas and Resource Innovations have improved quality control checks in 2020 to catch input values that have been stored incorrectly, especially for furnace tune up measure.
IQ-SF-CC	2019	The evaluation team recommends that additional installation rate research be conducted with Kit 4 participants to validate that the ISRs for weatherization 2019 measures in the TRM are appropriate for customers who receive two kits.	6/18/2020	ISR research for KITS program is planned for 2020/2021 program implementation and evaluation period.
NRNC	2019	Guidehouse recommends the implementation team continue the collaborative 2019 process built with the evaluation team over the prior several years.	6/30/2020	No major adjustments or issues were identified during the evaluation in PY2019. Nicor Gas is working with implementation team continue the collaborative process built with the evaluation team over the prior several years in PY2020.
NRNC	2019	Guidehouse recommends Nicor Gas work with evaluators to investigate the tracking data discrepancy for CY2019 regarding the following three projects: CINC-0969, CINC-0971, CINC-0989.	6/30/2020	Nicor Gas has worked with evaluators to investigate the tracking data discrepancy for CY2019 regarding the following three projects: CINC-0969, CINC-0971, CINC-0989. Nicor Gas will engage with evaluators to make sure data alignment between utilities in PY2020.
NRNC	2019	The program implementer, ComEd, Nicor Gas, Peoples Gas, and North Shore Gas should work to ensure the most recent and accurate project-level data is available and provide to all relevant parties. Since both projects for which a discrepancy existed were sampled as a part of our CY2019 evaluation, we can confirm the 2019 correct savings are being applied.	6/30/2020	Nicor Gas is working closer (at least quarterly meeting) with ComEd, Peoples Gas, and North Shore Gas to ensure the most recent and accurate project-level data is available and provide to all relevant parties. Also Nicor Gas has added additional "As Built Therms" field in Nicor tracking data to reflect therms with and without interactive effects.
SB	2019	Guidehouse recommends the implementer add data fields for the new circumference variables in the TRM v7.0 or v8.0 and apply the updated savings 2019 algorithm for DHW hot water pipe wrap (section 5.4.1).	6/30/2020	Nicor Gas has used new DHW pipe insulation savings algorithm to calculate 2020 measure inputs based on TRM v.8.
SB	2019	Nicor Gas should verify that tracking data inputs match the values used to calculate ex ante savings and consistently apply the TRM algorithm.	6/30/2020	These projects calculated savings correctly but data in the tracking file had not been reconciled with the inputs used for savings. Implementer has manually updated 2019 dataset and will make sure to pass 2020 dataset with correct inputs.
SB	2019	The program should use post-installation data when available and per-day values instead of monthly values to account for uneven billing periods.	6/30/2020	This recommendation is for the custom project. Nicor Gas will use post-installation data when available and per-day values instead of monthly values to account for uneven billing periods in PY2020 and further program year.
BEER	2019	Guidehouse agrees that the choice Nicor Gas made to assume a conservative estimate of 9,581 gallons usage input for all restaurants is reasonable. However, when evaluation establishes or confirms the type or condition of facilities, we will apply the most representative operating condition from the TRM. In this case (PRJ-2115592), we confirmed that the facility is a "sit down restaurant" and calculated 2019 a gross realization rate of 150%.	6/30/2020	Nicor Gas assigned "other" to this business because the reality of the facility was determined to be somewhere in between "fast food" and "sit down" restaurant and "other" was determined to be a conservative approach in such a scenario. Nicor Gas will continue to take a conservative approach in instances where actual building type may bridge TRM building type tiers.
BEER	2019	Guidehouse recommends that the program use building type "Other" for installations at building types not provided in the TRM for this measure.	6/30/2020	Nicor Gas has corrected this project and will monitor future projects, will continue to use "Other" for installations at building types outside of those listed in aerator usage table in TRM.
BEER	2019	Guidehouse recommends that the EFLH values for furnace and boiler measures 2019 be updated to align, by building type, with the program year TRM version.	6/30/2020	Nicor Gas has updated the EFLH values for furnace and boiler measures to align, by building type, with the program year TRM version 8.
BEER	2019	Guidehouse recommends that the gross unit therm savings use the site-specific GPM ("PostInstallationEfficiency" field) as provided by the model in the tracking 2019 data.	6/30/2020	The showerhead measures for this project were mapped to the incorrect measure type, which should have been 2.0 GPM rather than 1.5. Nicor Gas no longer offers 2.0 GPM showerheads through the DI offering. All projects going forward will reflect savings for 1.5 GPM.
BEER	2019	Nicor Gas should review the ex ante calculations used for the projects listed in Table 5.2.	6/30/2020	The program-level verified gross savings realization rate for steam trap measures is 100%. Going forward, Nicor Gas will still review the ex ante calculations used and data accuracy in PY2020.
BEER	2019	Nicor Gas should use a default boiler efficiency of 0.807 per TRM v7.0 4.4.16, which was used to calculate verified savings.	6/30/2020	Nicor Gas does use a default boiler efficiency of 0.807 per TRM v7.0 4.4.16, which was used to calculate verified savings. Nicor Gas will check data quality to reflect all decimals in efficiency inputs going forward.
BEER	2019	Nicor Gas should ensure that all "LeakingAndBlowThru" inputs are consistent with the TRM or a provide source of custom inputs.	6/30/2020	Nicor Gas uses a "LeakingAndBlowThru" factor of 1 for all industrial steam traps. This project contained a data error. Nicor Gas will ensure that all "LeakingAndBlowThru" inputs are consistent with the TRM or a provide source of custom inputs.
BEER	2019	Guidehouse recommends that Nicor Gas use the TRM methodologies and inputs 2019 described in Figure 5.1 and Table 5.3 for estimating storage water heaters.	6/30/2020	These projects initially had errors in data. Nicor Gas has used the TRM methodologies and inputs described in Figure 5.1 and Table 5.3 for estimating storage water heaters in PY2020.
BEER	2019	Nicor Gas should use the inputs provided in the tracking data to calculate the 2019 gross therms savings for connection owners.	6/30/2020	Nicor Gas clarified that the TRM value (12,000 btuh) was used, and disregarded the tracking data value (13,000 btuh). Nicor Gas will make sure the data accuracy in PY2020.
BEER	2019	Custom inputs used for horsepower (HP) or heating efficiency ("actual if known" 2019 is allowed by the TRM for both inputs) should be provided in the tracking data.	6/30/2020	Nicor Gas used the actual HP to calculate savings in 2019, "HorsePower" field has been added into 2020 tracking dataset.
BEER	2019	In 2020, Nicor Gas should use TRM v8.0 (4.8.16) to calculate weather stripping savings and use a measure life of 10 years.	6/30/2020	Nicor Gas uses TRM v8.0 (4.8.16) to calculate weather stripping savings and uses the measure life of 10 years in PY2020
HES	2019	Guidehouse did not apply changes to the revised therms savings. However, we recommend that Nicor Gas ensure consistency in their data tracking process on documenting facility fuel use type or building type between mid-year and final 2019 tracking data.	6/30/2020	Nicor Gas has updated property type tracking and has seen no errors in 2020 dataset.
HES	2019	Ensure that when SF and MF building types are appropriately recorded in the 2019 tracking system, the correct TRM inputs are used.	6/30/2020	Nicor Gas has set up a QA/QC review process to catch these discrepancies. The correct TRM inputs are used based on SF or MF building type.
HES	2019	Nicor Gas should align the tracking data "HeatingSystemType" and "MeasureNotes" fields to consistently label boiler heating systems. Those fields should then be used to inform the annual gas heating consumption used in ex ante therms savings calculations.	6/30/2020	Nicor Gas has updated the dataset to align the tracking data "HeatingSystemType" and "MeasureNotes" fields to consistently label boiler heating systems.
HES	2019	Guidehouse recommends that Nicor Gas check and correct as needed the 2019 and 2020 NTG tracked values for all air sealing, duct sealing, and insulation measures. The correct NTG values for 2019 and 2020 are found in the 2020 S&G NTG recommendations in Nicor_Gas_NTG_History_and_2020_Values 2019-10-01 2019 Final.xlsx on the S&G web site.	6/30/2020	Nicor Gas has corrected 2020 NTG tracked values for all air sealing, duct sealing, and insulation measures.
HES	2019	Guidehouse recommends data validation checks to ensure tracking data reflects 2019 reasonable estimates of per unit savings.	6/18/2020	Nicor Gas and Resource Innovations have updated QA/QC process (data validation checks) to verify dataset moving forward.
IQ-MF	2019	Guidehouse recommends calibrating the building simulation models to ensure that the models use the relevant usage history depending on whether the measure impacts weather independent equipment (domestic hot water) or space 2019 heating consumption.	6/18/2020	Nicor Gas has provided this feedback to the implementer and technical partners, and updated our internal QC process to ensure that the appropriate baseline is utilized for future projects.
IQ-MF	2019	Guidehouse recommends ensuring the tracking data includes the Rnew value for 2019 all installed hot water pipe insulation measures.	6/18/2020	Nicor Gas ensures the tracking data includes the Rnew value for all installed hot water pipe insulation measures, and is correctly mapped moving forward.
IQ-MF	2019	The evaluation team recommends that installation rate research be conducted with Kit 4 participants to validate that the ISRs for weatherization measures in the TRM are appropriate for customers who receive two kits. The evaluation team acknowledges that ISR research is planned for 2020/2021 program 2019 implementation and evaluation period.	6/18/2020	ISR research for KITS program is planned for 2020/2021 program implementation and evaluation period.