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To:	Illinois EE Policy Manual Subcommittee
CC:	Jeff Erickson, Randy Gunn, Rob Neumann, Chelsea Lamar; Navigant
From:	Charles Ampong, Rick Berry, Navigant
Date:	June 24, 2019
Re:	Policy Manual Guidance on Verifying Savings from Non-Qualified Equipment

INTRODUCTION

In prescriptive programs, there are numerous scenarios where installed equipment fails to meet program criteria[1] but still results in energy savings. For a TRM measure, guidance on treatment of savings is provided by the Illinois Energy Efficiency Policy Manual, Version 1.1. This memo requests that the Policy Manual be amended to provide guidance on the scenarios described in this memo, specifically, equipment that fails to meet program criteria but is functioning and resulting in some amount of energy savings.

NON-QUALIFIED EQUIPMENT SCENARIOS

This memo will refer to equipment that fails to meet program criteria as non-qualified equipment (NQE). The scenarios that are known to occur are described below. In all scenarios, the installed equipment is functioning and resulting in some amount of energy savings.

Scenario A: Incorrect Technology

Example: A customer installs a lighting control with timer-delayed shut off and applies for an occupancy sensor. The installed equipment is not a program measure. After interviewing the customer, evaluation determines that this control is resulting in reduced operating hours for the controlled lighting. The customer received an incentive and evaluation verified the control is functioning properly.

Scenario B: Correct Technology, but Ineligible Application

Example: A customer installs floating head pressure control in an industrial refrigerated space. The incentive application states that incentives are available only for grocery store applications. The deemed savings for this measure is based on a program work paper that is only valid for grocery store applications. The customer received an incentive and evaluation verified the control is functioning properly.

Scenario C: Equipment Fails to Meet Savings-Related Criteria

Example: A customer installs a new transformer that is 97% efficient[2] but the program incentive application requires the unit have an efficiency of at least 97.5%. The deemed savings for this measure is based on a work paper that assumes an installed efficiency of at least 97.5%. However, the equipment is

[1] "Program criteria" refers to the both the measure requirements listed on the application paperwork and the requirements provided in the program workpapers that provide the savings for non-TRM measures.
[2] The efficiency values are used only for discussion and do not reflect actual program or code-required standards.

more efficient than the federal minimum standards of 96%. The customer received an incentive and evaluation verified the equipment is functioning properly.

Scenario D: Equipment Fails to Meet Criteria Inconsequential to Energy Savings

Example: A customer installs an uninterruptible power supply (UPS) that is not ENERGY STAR rated. The incentive application states that the UPS must be ENERGY STAR rated to qualify for incentives. Upon review, the installed UPS is found to meet all relevant ENERGY STAR criteria but is not identified in the ENERGY STAR qualified products list. The customer received an incentive and evaluation verified the equipment is functioning properly.

PERSPECTIVES ON NON-QUALIFIED EQUIPMENT

The program implementer perspective contends that the savings that result from such scenarios be counted as verified savings based on two arguments.

1. The customer received an incentive for the project and participated in the same process as a typical program participant. The program influenced these customers under the same mechanisms as other program participants.
2. The project is generating energy savings. Depending on the project, the savings may be more or less than the ex ante estimate.

Evaluation does not find explicit guidance in the Policy Document for the Illinois Statewide Technical Reference Manual[3] on evaluation of non-TRM prescriptive measures. Previously, evaluation has referred to the following language in the policy manual and the program criteria to determine whether savings from these scenarios should be considered eligible verified savings.

> "**Savings Verification**: An evaluation process that independently verifies program savings achieved through prescriptive measures. This process verifies that the TRM was applied correctly and consistently by the program being investigated, that the measure level inputs to the algorithm were correct, and that the quantity of measures claimed through the program are correct and in place and operating. The results of savings verification may be expressed as a program savings realization rate (verified ex post savings / ex ante savings). Savings verification may also result in recommendations for further evaluation research and/or field (metering) studies to increase the accuracy of the TRM savings estimate going forward."
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> "**Prescriptive**: The TRM is intended to define all prescriptive measures. Prescriptive measures refer to measures offered through a standard offering within programs. The TRM establishes energy savings algorithm and inputs that are defined within the TRM and may not be changed by the Program Administrator, except as indicated within the TRM."

Evaluation has interpreted these passages to require that installed equipment meet TRM and program criteria to result in eligible savings. Specifically, this text advises that the evaluation process is intended to "[verify] that the TRM was applied correctly and consistently by the program being investigated." While the scenarios in question are not TRM measures, claiming savings on NQE projects does not qualify as consistent treatment of program criteria. By design, these projects should be screened out during the application process and referred to the appropriate program.

[3] Policy Document for the Illinois Statewide Technical Reference Manual for Energy Efficiency, Final. October 25, 2012.

The Policy Document also appears to limit the type of adjustments made to TRM algorithms and input values: “[the] TRM establishes energy savings algorithm and inputs that are defined within the TRM and may not be changed by the Program Administrator, except as indicated within the TRM.” The evaluation team interprets this to mean that deviations, such as creating new algorithms or input values for equipment or applications outside of the scope of the TRM measure or program workpaper, are prohibited.

Additionally, evaluation has concerns regarding the acceptance of NQE savings.

1. NQE projects often require evaluation to create custom savings calculations for measures that do not have the same level of documentation as custom projects typically require. In most cases, there is little or no information of the baseline condition of the project. This results in savings estimates of dubious accuracy.
2. NQE projects, if numerous, may also add considerable time demands of evaluation, which is under legislated timelines and budget.
3. There is a conflict of interest for program implementers to screen out NQE projects if savings can be claimed.
4. In a related manner, the arguments used to justify the acceptance of NQE savings could be used to justify claiming savings in cases where customers thought they were going to receive an incentive, did not, but installed efficient NQE (i.e., the NQE that was screened out).

REQUEST OF POLICY MANUAL SUBCOMMITTEE

Navigant is requesting that the Policy Manual Subcommittee provide guidance on evaluation’s treatment of equipment that fails to meet program criteria but is functioning and resulting in some amount of energy savings. Additionally, Navigant recommends clarifying the definition and limitations of non-TRM prescriptive measures.