<u>7 Proposed Modifications to the TRM to remove Policy Issues</u>

1. Page 10, footnote 1.

~~"Specifically, this TRM has been developed to help determine compliance with the energy efficiency requirements of the Illinois Public Utilities Act (220 ILCS 5), Sections 8-103 and 8-104"~~

2. Page 10, last bullet point.

- ~~"Provide a standardized, statewide methodology for calculating prescriptive energy and capacity savings, which gives independent evaluators a consistent framework from which to evaluate the savings achieved for the Illinois energy efficiency portfolios."~~

3. Pages 11-12.

"Finally, the measure titles used in this TRM may not match exactly the titles that the Utilities or DCEO efficiency programs use. ~~However, in future filings at the ICC, the Program Administrators will use the Measure Codes described in Table 2.2 to allow for easy review and transparency across programs and portfolios.~~   An organizational structure, described in the next section, gives details about how measures are grouped, categorized, and described."

4. Page 16.

~~**2.4   APPLYING DEEMED INCREMENTAL COSTS TO MEASURE SCREENING**~~
~~Each measure includes at least one deemed incremental cost(s) for each measure as a default value(s).   However, Direct Install programs may have better information on the true incremental cost of their measures. In instances like this, program administrators may use their own, custom incremental cost value for the purposes of measure screening subject to the requirement that it document the decision in its reporting, bring the results to the SAG for its review and submit the change to the TRM Update Procedure during the next update cycle.~~

2.5   PARAMETER INPUT TABLES
Many of the measures in this TRM require the user to select the appropriate input value from a list of inputs for a given parameter in the savings algorithm. Where the TRM asks the user to select the input, look up tables of allowable values are provided. For example, a set of input parameters may depend on building type; while a range of values may be given for each parameter, only one value is appropriate for any specific building type. If no table of alternative inputs is provided for a particular parameter, then the single deemed value will be used~~, unless the entire measure is implemented on a custom basis~~.

5. Pages 20-30.

3   POLICIES FOR APPLYING THE TRM TO ENERGY EFFICIENCY PROGRAMS

4   TRM UPDATE PROCESS & TIMELINE

6. Pages 35-36.

Deemed Value: A value that has been assumed to be representative of the average condition of an input parameter. ~~This term may also refer to the calculated result of a prescriptive savings algorithm.~~

Default Value: When a measure indicates that an input to a prescriptive saving algorithm may take on a range of values, an average value is also provided in many cases. This value is considered the default input to the algorithm, and should be used when the other alternatives listed in the measure are not applicable.

End-use Category: A general term used to describe the categories of equipment that provide a service to an individual or building. See Table 2.1 for a list of the end-use categories that are incorporated in this TRM.

~~**EM&V –** Evaluation, Measurement and Verification. An ongoing annual process that Program Administrators must complete for the ICC.~~

~~**Evaluation:** Evaluation is an applied inquiry process for collecting and synthesizing evidence that culminates in conclusions about the state of affairs, accomplishments, value, merit, worth, significance, or quality of a program, product, person, policy, proposal, or plan. Evaluation in the energy efficiency arena is an investigation process to determine energy or demand impacts achieved through the program activities, encompassing, but not limited to: *savings verification*, *measure level research*, and *program level research*. Additionally, evaluation may occur outside of the bounds of this TRM structure to assess the design and implementation of the program.~~

Full Load Hours (FLH): The equivalent hours that equipment would need to operate at its peak capacity in order to consume its estimated annual kWh consumption (annual kWh/connected kW).

High Efficiency: General term for technologies and processes that require less energy, water, or other inputs to operate.

Lifetime: The number of years (or hours) that the new high efficiency equipment is expected to function. These are generally based on engineering lives, but sometimes adjusted based on

expectations about frequency of removal, remodeling or demolition. Two important distinctions fall under this definition; Effective Useful Life (EUL) and Remaining Useful Life (RUL).

> **EUL** – EUL is based on the manufacturers rating of the effective useful life; how long the equipment will last. For example, a CFL that operates x hours per year will typically have an EUL of y. A house boiler may have a lifetime of 20 years but the EUL is only 15 years since after that time it may be operating at a non-efficient point. An estimate of the median number of years that the measures installed under a program are still in place and operable.

> **RUL** – Applies to retrofit or replacement measures. For example, if an existing working refrigerator is replaced with a high efficiency unit, the RUL is an assumption of how many more years the existing unit would have lasted. As a general rule the RUL is usually assumed to be 1/3 of the EUL.

Load Factor (LF): The fraction of full load (wattage) for which the equipment is typically run.

Measure Cost: The incremental (for time of sale measures) or full cost (both capital and labor for retrofit measures) of implementing the High Efficiency equipment.

Measure Description: A detailed description of the technology and the criteria it must meet to be eligible for as an energy efficient measure.

~~**Measure Type:** Measures are categorized into two subcategories; prescriptive and custom.~~

> ~~**Custom:** Measures that use an energy savings algorithm and/or inputs, or metering results that apply only to the individual customer who is implementing them.~~

> ~~**Prescriptive:** Measures whose energy savings algorithm and inputs are fixed within the TRM and may not be changed by the Program Administrator. Prescriptive measures make up most of the measure in the Residential market sector. Two subcategories of prescriptive measures include:~~

> > ~~**Fully Deemed:** A measure whose inputs are completely specified and are not subject to change or choice on the part of the Program Administrator.~~

> > ~~**Partially Deemed:** A measure whose inputs may be selected to some degree by the Program Administrator.~~

Measure: An efficient technology or procedure that results in energy savings as compared to the baseline efficiency.

~~**Measure Level Research**: An evaluation process that takes a deeper look into measure level savings achieved through program activities driven by the goal of providing Illinois specific research to facilitate updating measure specific TRM input values or algorithms. The focus of this process will primarily be driven by measures with high savings within utility portfolios, measures with high uncertainty in TRM input values or algorithms (typically informed by previous savings verification activities or program level research), or measures where the TRM is lacking Illinois-specific, current or relevant data.~~

~~**Program Level Research**: An evaluation process that takes an alternate look into achieved program level savings across multiple measures. This type of research may or may not be specific enough to inform future TRM updates because it is done at the program level rather than measure level. An example of such research would be a program billing analysis.~~

Residential: The market sector that includes measures that apply only to detached, residential buildings or duplexes.

Operation and Maintenance (O&M) Cost Adjustments: The dollar impact resulting from differences between baseline and efficient case Operation and Maintenance costs.

Operating Hours (HOURS): The annual hours that equipment is expected to operate.

Program: The mode of delivering a particular measure or set of measures to customers. See Table 2.4 for a list of program descriptions that are presently operating in Illinois.

Rating Period Factor (RPF): Percentages for defined times of the year that describe when energy savings will be realized for a specific measure.

~~**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 / claimed ex ante savings). Savings verification may also result in recommendations for further evaluation and/or field (metering) studies to increase the accuracy of the TRM savings estimate going forward.~~

7. Pages 519-520.

8 C&I CUSTOM VALUE USE IN MEASURE IMPLEMENTATION

~~This section defines the requirements for analyzing and documenting energy efficiency measures.~~

This section defines the requirements for capturing custom variables stated in the commercial and industrial prescriptive measures defined in this statewide TRM. This approach is to be used when a variable in a measure formula can be replaced by a verifiable and documented value that is not presented in the TRM. This approach assumes that the algorithms presented in the measure are used as stated and only allows changes to certain variable values and is not a replacement algorithm for the measure. ~~If a new algorithm is required for the measure in question, a custom measure protocol can be employed, if appropriate, or the measure can be entered into the defined change/update process for further consideration as to the measure change or addition to the next statewide TRM revision. Program Administrators can use custom measures outside of change/update process but they may be at risk for savings values until such time as the measure is approved and incorporated into the TRM.~~

~~This approach is intended to address the energy impacts of the incremental energy efficiency improvements over what would have been installed as per applicable federal/state/local codes or standard industry practice and allow the program administrator some flexibility in entering custom values into defined energy savings algorithms. The approach allows this flexibility only on certain measures and on certain values within those measures.~~

8.1 Custom Variables

The following table defines which measures this custom approach can be applied to and further, what variables can be adjusted. This table does not include variables that require actually installed numbers that are collected from the customer, but maps those values where a default value is provided that can be replaced with a custom value. Also indicated is the type of

validation required to update a custom figure. Information should be collected and stored based on existing utility procedures.