

**Policies for Applying and Updating the  
State of Illinois**

**Energy Efficiency  
Technical Reference Manual:**

**TRM Policy Document**

**As of September 14<sup>th</sup>, 2012**

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## 1 Purpose of the TRM

The purpose of the is Illinois Statewide Technical Reference Manual (TRM) is to provide a transparent and consistent basis for calculating energy (electric kilowatt-hours (kWh) and natural gas therms) and capacity (kilowatts (kW)) savings generated by the State of Illinois' energy efficiency programs<sup>1</sup> which are administered by<sup>2</sup>. For this end, the Vermont Energy Investment Corporation (VEIC) was retained by the Illinois Energy Association (IEA) on behalf of the Department of Commerce and Economic Opportunity (DCEO) and the state's largest electric and gas utilities<sup>3</sup> (collectively, Program Administrators) to prepare this TRM for statewide use.

**Comment [newStaff1]:** We don't believe this is relevant to the TRM Policy document that we would hope would remain in place for a number of years.

The TRM is a technical document that is annually filed with the Illinois Commerce Commission (Commission or ICC) for approval that is intended to fulfill a series of objectives, including:

- "Serve as a common reference document for all... stakeholders, [Program Administrators] Utilities / Program Administrators, and the Commission, so as to provide transparency to all parties regarding savings assumptions and calculations and the underlying sources of those assumptions and calculations.
- Support the calculation of the Illinois Total Resource Cost test<sup>4</sup> (TRC), as well as other cost-benefit tests in support of program design, evaluation and regulatory compliance. Actual cost-benefit calculations and the calculation of avoided costs will not be part of this TRM.
- Identify gaps in robust, primary data for Illinois, that can be addressed via evaluation efforts and/or other targeted end-use studies.
- ...[Contain] a process for periodically updating and maintaining records, and preserve a clear record of what deemed parameters are/were in effect at what times to facilitate evaluation and data accuracy reviews.
- Provide standard protocols for determining energy savings for some common custom projects, as appropriate.<sup>5</sup>
- "...[S]upport coincident peak capacity (for electric) savings estimates and calculations for electric utilities in a manner consistent with the methodologies employed by the utility's Regional Transmission Organization ("RTO"), as well as those necessary for statewide Illinois tracking of coincident peak capacity impacts."<sup>6</sup>

**Comment [ICC Staff2]:** The typographical changes were previously agreed to by the SAG; however, they were not incorporated into the document. This is a quotation.

**Comment [newStaff3]:** We agree with Nicor's comments (9/7/12) that it makes sense to remove this bullet since the custom protocols are not in the TRM.

### 1.1 Objectives and Purpose of the TRM Policy Document

The TRM Policy Document addresses several areas related to the updating and applicability of the TRM, including:

<sup>1</sup> 220 ILCS 5/8-103 and 220 ILCS 5/8-104.

<sup>2</sup> (<http://www.ilga.gov/legislation/ilcs/ilcs5.asp?ActID=1277&ChapterID=23>)

<sup>3</sup> In addition to DCEO, the Program Administrators utilities include: Ameren Illinois, ComEd, Peoples Gas, Peoples North Shore Gas, & and Nicor Gas.

<sup>4</sup> The Illinois TRC test is defined in 220 ILCS 5/8-104(b) and 20 ILCS 3855/1-10.

<sup>5</sup> Illinois Statewide Technical Reference Manual Request for Proposals, August 22nd, 2011, pages 3-4, "TRM\_RFP\_Final\_part\_1.230214520.pdf"

<sup>6</sup> Illinois Statewide Technical Reference Manual Request for Proposals, August 22, 2011, pages 3-4, [http://ilsag.org/yahoo\\_site\\_admin/assets/docs/TRM\\_RFP\\_Final\\_part\\_1.230214520.pdf](http://ilsag.org/yahoo_site_admin/assets/docs/TRM_RFP_Final_part_1.230214520.pdf)  
<sup>7</sup> Ibid.

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**Policies for Applying and Updating the Illinois Statewide Technical Reference Manual – ICC Staff edits**

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1. The TRM update process and timeline;
2. The applicability of the TRM; and
3. Glossary.

The purpose of the TRM Policy Document is to provide transparency of and consistency in the applicability of TRM values so that all stakeholders have a common reference document for measure, program and portfolio savings claims. This common reference document enables meaningful cross-program comparisons; provides a consistent basis for savings calculations ~~and claims~~, and creates stability and certainty for Program Administrators as they make program design and implementation decisions. In addition, a common and transparent reference document for the use and applicability of the TRM ~~may significantly~~ reduces costs to Program Administrators and stakeholders in preparing and reviewing Energy Efficiency Plan filings and reporting and reviewing ~~claimed~~ energy savings as review of savings occurs in a single, coordinated process rather than separately and independently for each of five ~~Illinois statewide Portfolio Program~~ Administrators. 7

**Comment [newStaff4]:** We agree with Nicor's comments (submitted 9/7/12 and 5/11/12) to avoid using the Vermont "claims" terminology in the TRM.

## 2 TRM Update Process ~~&~~ and Timeline

Because technology is constantly improving, and markets are constantly changing, a TRM must be a living document to keep pace with change. Otherwise, the TRM will quickly become obsolete and the savings estimates ~~will become~~ may be perceived to be less reliable ~~inaccurate~~. The need to update the TRM can be driven by a number of events, including but not limited to, the following:

- Addition of new measure algorithms perceived to be reliable for TRM inclusion
- Impact of code or legislative changes to specific measures
- Introduction of new technologies
- Discovery of errors in existing TRM measure characterizations
- Changes to industry standard practice

The following sections outline the annual TRM Update Process, including roles and responsibilities for stakeholders in the TRM Update Process and a timeline for updating the TRM that is in sequence with the regulatory milestones that have already been set for future efficiency Plan filings. In addition to this process, the Technical Advisory Committee (TAC) will continue to meet monthly (and more frequently if necessary) to discuss:

1. The applicability of the TRM,
2. Any situations where a stakeholder believes a TRM value should not apply as a condition set forth in Section 3.4 exists,
3. Any TRM mistakes, or
4. Any other matters relating to the TRM.

### 2.1 Stakeholder Roles and Responsibilities

Formal recommendations for TRM changes must be submitted along with all supporting work papers consistent with the ~~approved~~ work paper format to the [Illinois Energy Efficiency Stakeholder Advisory Group \(SAG\)](#), Technical Advisory Committee (TAC) and TRM Administrator, concurrently. Although any party is free to recommend changes to the TRM, the following stakeholders have ongoing responsibilities that can be specified.

1. **Evaluators** (Evaluation Teams, Independent Consultants) – The Evaluators have primary responsibility pursuant to 220 ILCS 5/8-103(f)(7) and 220 ILCS 5/8-104(f)(8) to provide independent evaluations of the performance of the Utilities' and DCEO's energy efficiency portfolios. To support this responsibility in the context of the TRM, Evaluators will use TRM values to perform savings verification for prescriptive measures covered by the TRM, and, where budget allows, conduct measure and program level research to inform future TRM updates. The Evaluators shall collaborate with the Utilities, the SAG TAC, and DCEO to determine appropriate data collection and analysis that supports TRM savings verification and TRM updates, ~~where available budget exists~~, while considering the administrative cost and participant burden associated with such data collection. The Evaluators make recommendations for TRM Updates and participate in the SAG TAC.
2. **ICC Staff** – ~~The ICC's~~ Staff's primary responsibility is to make recommendations to the Commission, participate in the development of the annual TRM filing, make recommendations for TRM Updates, and participate in the SAG's TRM Technical Advisory Committee (TAC).

**Comment [newStaff5]:** We agree with Nicor's comments (9/7/12) regarding the need to understand what this format is. Also, is the "approved" format the one that the TRM Administrator designates or how does the format get "approved"?



3. **Illinois Energy Efficiency Stakeholder Advisory Group<sup>8</sup>** (SAG) – The Illinois Energy Efficiency Stakeholder Advisory Group is advised of and given the opportunity to comment on the TRM Administrator’s recommended TRM Updates prior to the revised (redlined) TRM being filed with the ICC. However, technical issues regarding the TRM are usually addressed substantively through the TAC, which is open to any SAG participant. [IL EE SAG participants can make recommendations for TRM Updates.](#)
4. **Program Administrators** (Utilities and DCEO) – The Utilities and DCEO have primary responsibility to cost-effectively meet the energy savings targets defined by Illinois statute by implementing energy efficiency programs. The Utilities and DCEO are also responsible for tracking program participation, reporting estimates of energy savings using TRM values, where such values exist, estimating cost effectiveness, and implementing the TRM savings values, [including TRM Measure Codes and other information necessary to apply to TRM,](#) through their tracking systems. The Utilities, the TAC and DCEO collaborate with the Evaluators prior to the start of each program year to determine an appropriate balance of data collection necessary to update [and implement](#) the TRM in the upcoming program year while considering the administrative cost and participant burden associated with such data collection. The Utilities, DCEO, and the TAC make recommendations for TRM Updates. [The Utilities and DCEO may present to the SAG prior to the annual TRM Update proceeding, information explaining how the proposed TRM changes impact their energy efficiency portfolios.](#)
5. **SAG Technical Advisory Committee (TAC)** – The TAC is a subcommittee of the SAG whose primary responsibility is to provide a forum to allow all interested parties to recommend TRM updates, additions, and changes and facilitate consensus for TRM changes among the Evaluators, ICC Staff, Utilities, DCEO, Program Administrators, Program [Administrators/Implementers](#), interested stakeholders (e.g., [other SAG participants](#)), and the TRM Administrator prior to the annual TRM Update proceeding. All recommendations for TRM changes shall be submitted to the TRM Technical Advisory Committee and TRM Administrator concurrently. Where consensus does not emerge in the SAG TAC regarding a particular TRM change, the SAG provides a forum where experts on all sides of the contested issue can present their expert opinions in an effort to inform parties of the contested issue and to also facilitate consensus. Any documents filed with the ICC will reflect any areas where consensus is not reached through a “Comparison Exhibit” that sets forth the different expert opinions on a particular issue or matter.
6. **TRM Administrator** (Independent Consultant) – The TRM Administrator has primary responsibilities to manage changes to the TRM document, present changes to the SAG ~~-TAC~~, coordinate with the SAG, serve as an independent technical resource, and if desired by the SAG, manage a publicly accessible TRM website that contains TRM-related documents such as references, recommendations, responses, and versions of the TRM. The TRM Administrator reviews and responds<sup>9</sup> to all formal TRM recommendations by a date specified in advance by the TRM Administrator, when updating the TRM for a specific program year. The TRM Administrator prepares the revised TRM document (redlined) each year for filing with the ICC based on recommended TRM changes vetted through the SAG TAC and the large-group SAG. [The TRM Administrator shall prepare a list of all the changes \(incorporated in the redlined revised TRM document\) made to the TRM with rationale for each change.](#) The TRM Administrator shall make any necessary revisions to the TRM to reflect the Commission Order from the annual TRM Update proceeding. [To ensure](#)

<sup>8</sup> The Commission [first](#) defined the SAG [in the electric utilities' first energy efficiency Plan Orders](#) to include “... the Utility, DCEO, Staff, the Attorney General, BOMA and CUB and representation from a variety of interests, including residential consumers, business consumers, environmental and energy advocacy organizations, trades and local government... [and] a representative from the ARES (alternative retail electric supplier) community should be included.” [Docket No. 07-0540, Final Order at 33, February 6, 2008. http://www.ilsag.org/home](#)

<sup>9</sup> The TRM Administrator’s “response” to a formal recommendation for a TRM change shall explain whether the TRM Administrator agrees with the formal recommendation (either in its entirety or as modified by the TRM Administrator) and the justification for the TRM Administrator’s recommendation.

**Comment [newStaff6]:** We agree with Nicor’s comments (9/7/12) that the citation to the SAG website was not an accurate reference for the quote, however, we do believe a link to the SAG website is appropriate to provide for informational purposes in any event. Staff added the correct reference. We do not believe the addition of the Nicor quote is necessary, as it refers to a “separate gas efficiency program SAG”, and as far as we can tell, there’s no such gas SAG, there is simply a single SAG for all the Illinois utilities. We’ve added back the original language from a previous version of the TRM front matter that addresses Nicor’s concern regarding clarifying the reference is from the electric utility orders. Original Language can be found in TRM Front Matter Draft 5-18-12, “The Illinois Energy Efficiency Stakeholder Advisory Group (SAG) was first defined in the electric utilities’ first energy efficiency Plan Orders to include “... the Utility, DCEO, Staff, the Attorney General, BOMA and CUB and representation from a variety of interests, including residential consumers, business consumers, environmental and energy advocacy organizations, trades and local government... [and] a representative from the ARES (alternative retail electric supplier) community should be included.”28”

**Comment [ICC Staff7]:** The TRM Administrator indicated this recommendation was accepted. See link below. [http://www.ilsag.org/yahoo\\_site\\_admin/assets/docs/Front\\_Matter\\_Comments\\_Summary\\_6-1-12.18282500.docx](http://www.ilsag.org/yahoo_site_admin/assets/docs/Front_Matter_Comments_Summary_6-1-12.18282500.docx)

**Comment [SE8]:** ICC Staff language originally shall.

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**Comment [newStaff9]:** We agree with Nicor’s comment (9/7/12) to add “other”. However we disagree with their suggestion to remove portfolio administrators, examples of which include Franklin Energy, WECC. The 2nd Program Administrator was a typo (a change all error) that Staff had previously pointed out, and that should read program implementers, which would include KEMA for example. These examples were contained in the TRM Comprehensive Draft 3-16-12, page 17 “a. **Portfolio Administrator** - Examples include WECC, Franklin Energy, SAIC, CSG, ComEd, etc. b. **Program Implementer** - Examples include KEMA, JACO, Honeywell, OPower, Efficiency 2.0, etc.”

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independence of the TRM Administrator and transparency in the TRM development process, the TRM Administrator shall ensure that all requesting parties are copied on all correspondence between the TRM Administrator and any other party related to the Illinois Statewide TRM development and update process and other activities associated with the TRM Administrator’s role. The TRM Administrator shall keep a log of discussions with any party related to the TRM. The TRM Administrator shall provide detailed meeting notes after each TRM meeting to the TAC that includes a list of meeting attendees. The TRM Administrator shall keep a user-friendly log of all TRM recommendations, clarifications, errors, corrections, and typos submitted that may be organized at least by TRM Measure Code, commenter, and date of submission in a location that may be accessible by TAC participants.

**Comment [newStaff10]:** We believe the lack of meeting notes from the weekly TRM meetings during TRM development was a major drawback and greatly reduced transparency into what had been discussed and agreed to for those who were not able to attend every weekly meeting. Often times issues that had already been discussed had to be re-discussed at a later date due this.

## 2.2 The Regulatory Schedule for Energy Efficiency Programs

Because technology and markets are so dynamic, a structured and ongoing update process for the TRM is necessary. ~~Because the~~ update process needs to be aligned with Illinois’ existing program planning and implementation cycles. ~~These~~ cycles are summarized in the following two tables.

Table 2.1: Efficiency Plan Periods

Cycle	Electric Plan Filing Date	Electric Plan Approval	Applicable Electric Program Year (EPY)	Applicable Gas Program Year <sup>10</sup> (GPY)
1	Nov-07	Feb-08	EPY1 – EPY3	
2	Oct-10	Dec-10	EPY4 – EPY6	GPY1 – GPY3
3	Sep-13	Feb-14	EPY7 – EPY9	GPY4 – GPY6

**Comment [newStaff11]:** We believe organization of comments is critical. For example, for "TRM Corrections" and other items where if consensus is reached then evaluators are to report those consensus values, it needs to be easy to find that information, including who was included in that "consensus" calculation.

**Comment [SE12]:** Alternative: Remove language. Remove language and use Sharepoint. All information will be available to any interested party. Some parties think expensive and burdensome. "All interested parties at their request will have equal and equally timely access to information related to TRM."

**Comment [SE13]:** Not everyone agrees that this level of detail should be in the policy document.

**Comment [SE14]:** IPA use is open question, we won't try to address here.

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Table 2.2: TRM Implementation Cycle<sup>44</sup>

Cycle	EPY	GPY	Begins	Ends	Application in Evaluation	Application in 3-Year Plans
1	1		6/1/2008	5/31/2009		
1	2		6/1/2009	5/31/2010	TRM does not apply to this cycle.	TRM not used in this cycle
1	3		6/1/2010	5/31/2011		
2	4	1	6/1/2011	5/31/2012	<del>1<sup>st</sup> ICC-approved TRM does not apply to this GPY1</del>	TRM not used in this cycle
2	5	2	6/1/2012	5/31/2013	<del>1<sup>st</sup> ICC-approved TRM applies applies</del>	
2	6	3	6/1/2013	5/31/2014	<del>2<sup>nd</sup> ICC-approved TRM finalized by</del>	
3	7	4	6/1/2014	5/31/2015	<del>3<sup>rd</sup> ICC-approved TRM applies finalized</del>	2 <sup>nd</sup> ICC-approved
3	8	5	6/1/2015	5/31/2016	<del>4<sup>th</sup> ICC-approved TRM applies finalized</del>	TRM finalized by
3	9	6	6/1/2016	5/31/2017	<del>5<sup>th</sup> ICC-approved TRM applies finalized</del>	3/1/13 used shall be used in Plan filing

**Comment [newStaff15]:** Pursuant to 220 ILCS 5/16-111.5B, the electric utilities are required to provide to the Illinois Power Agency by July 15<sup>th</sup> of each year (or such other date as may be required by the Commission or Agency), an assessment of cost-effective energy efficiency programs or measures that could be included in the procurement plan. Electric utilities could have annual plans also approved by the Commission by the end of December of each year as part of the IPA's procurement plan proceeding. Would the electric utilities use the TRM approved by March 1 of a particular year (2013), in their July 15<sup>th</sup> (2013) submittal to the IPA?

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**Comment [SE16]:** Need to add footnote does not apply to Ameren.

<sup>10</sup> Note that there is no statutory deadline for the approval of gas efficiency plans. The gas efficiency plan filing date is October 1<sup>st</sup>. 220 ILCS 5/8-104(f).

<sup>44</sup> ~~It is assumed the prospective application of the March 1 TRM will occur continuously until policy dictates otherwise. In the spirit of collaboration and support of the TRM process and due to the current 2012 transition process of completing the TRM, there will be an exception to the March 1 dating where TRM results that are finalized as of June 1, 2012 will be in effect for the evaluation of PY5.~~

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### 2.3 Update Timeline and Process

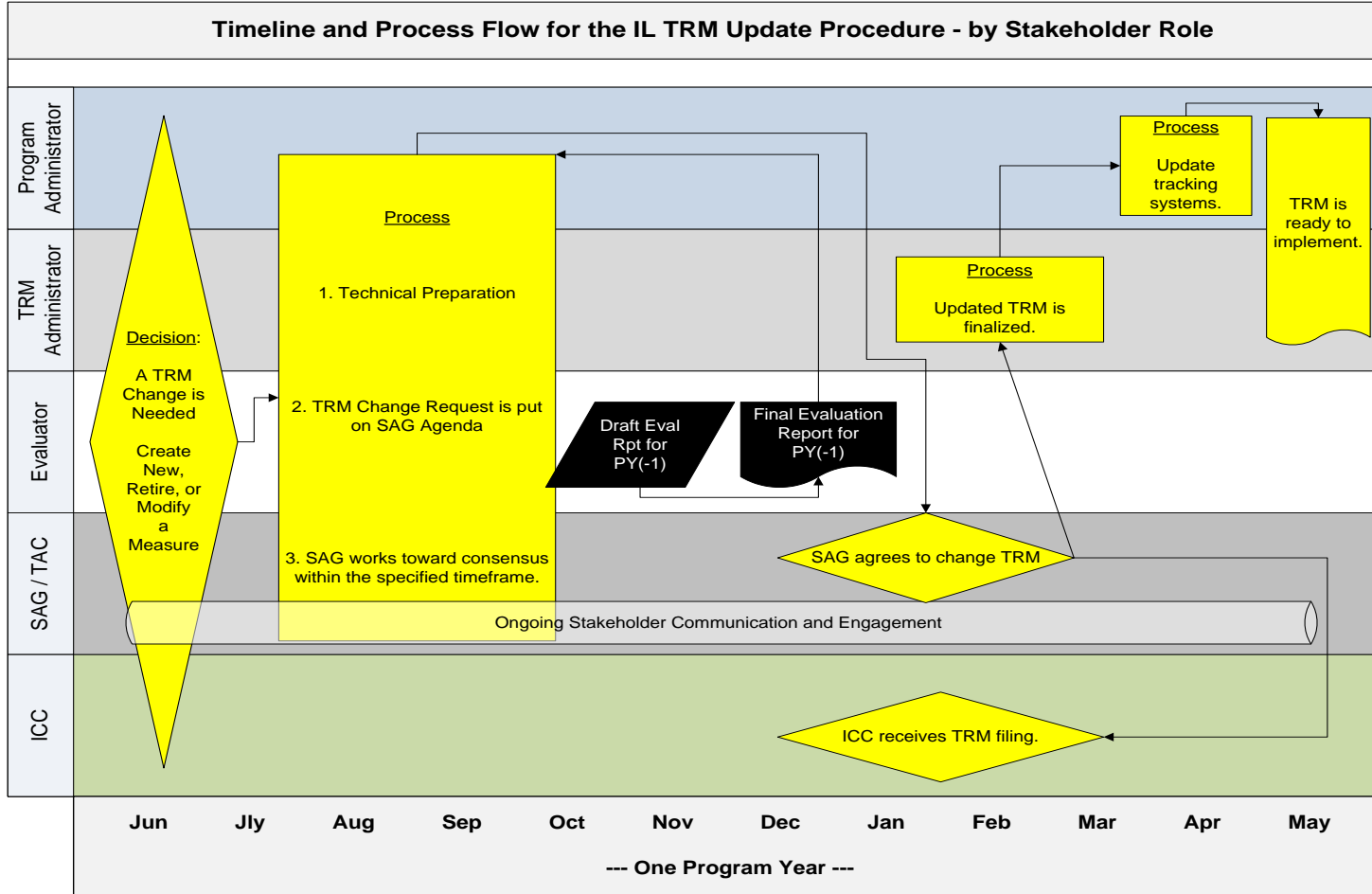
The process of incorporating new and better information into the TRM occurs annually. Prior to the start of the program year for which the Updated TRM will be in effect, the Utilities and DCEO will make portfolio adjustments and tracking system updates based in part on changes reflected in the Updated TRM. Thus, efforts will be made to have the Updated TRM ~~final~~ **approved by the Commission by** March 1<sup>st</sup> of each program year to provide the Utilities and DCEO adequate time for making these pre-program year changes.

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The evaluation results from one program year will be put into effect for the first time at the beginning of the next ~~[Use the Nicor edit here] program year following the date the evaluation was completed~~ ~~planning year~~. However, it should be noted that it is appropriate and expected that any completed evaluation be considered and/or incorporated into the TRM as they become available.

**Comment [newStaff17]:** Nicor's comments (9/7/12) changed this to read, "...first time at the beginning of the program year following their incorporation into the TRM."

Figure 1: Conceptual Timeline & Process of the TRM Update Procedure by Stakeholder



**Comment [ICC Staff18]:** The "decision" for a TRM change may not take place in June. Below is a suggested schedule, provided solely to facilitate discussion at the SAG meeting regarding the most appropriate process and timeline. Considering it is already September, it seems that this process should be vetted now since the TRM update for TRM#2 (which would be used in the 3-year Plan filing) is fast approaching.

- Some TRM change recommendations (e.g., errors, typos) would occur throughout the year and the TRM Administrator would track these.
- Then there should be a formal deadline by which parties would submit recommended TRM changes to the TRM Administrator.
- Weekly TAC meetings would occur after the submission of recommendations and until the TRM is filed with the Commission.
- Then the TRM Administrator would submit its proposed updated TRM redlined, along with responses to recommendations. Upon release of the proposed updated TRM, the formal annual SAG comment period begins.
- We believe it would be worthwhile to specify the timeframe in advance for the annual SAG and SAG TAC review of proposed changes to the TRM. e.g., Oct. 15<sup>th</sup> – Oct 29<sup>th</sup>? Nov. 1<sup>st</sup> – Nov. 15<sup>th</sup>?
- SAG and SAG TAC comments on proposed TRM Administrator recommended changes could be due Oct. 29<sup>th</sup>.
- Then, VEIC would provide responses to comments and revised redlined proposed updated TRM by Nov. 15<sup>th</sup>.
- Staff Report would be provided at the end of November, and proposed updated TRM submitted in early December.

Should any of the past comments that weren't considered much due to time constraints be revisited (technical comments)? Especially if the measure was a low impact measure that seems to be increasing in importance?

Figure 2: Proposed Timeline and Milestones of the TRM Update Procedure [Disputed]

MMM-YY	EPY/GPY	3-Yr Plan Filing	EM&V	Staff Proposal	Utility Proposal
Jun-12	EPY5/GPY2			<ul style="list-style-type: none"> <li>Do we need more detail here?</li> <li>When do these changes get considered through the TAC?</li> <li>Is it realistic that the EM&amp;V report will come out in Oct and the Staff report will be ready in Nov?</li> </ul>	
Jly-12	EPY5/GPY2				
Aug-12	EPY5/GPY2				
Sep-12	EPY5/GPY2				
Oct-12	EPY5/GPY2		Draft for EPY4 & GPY1	Staff <del>R</del> Report to ICC.	
Nov-12	EPY5/GPY2			ICC <del>I</del> nitiating Order for joint docket.	
Dec-12	EPY5/GPY2		Final for EPY4 & GPY1	<del>I</del> f contested, Initial & <del>R</del> eReply <del>e</del> Comments, <del>A</del> l <del>T</del> proposal, Briefs	
Jan-13	EPY5/GPY2				
Feb-13	EPY5/GPY2				
Mar-13	EPY5/GPY2			TRM #2 approved by ICC by 3/1.	TRM #2 consensus info. filing by 3/1.
Apr-13	EPY5/GPY2				
May-13	EPY5/GPY2				
Jun-13	EPY6/GPY3				
Jly-13	EPY6/GPY3				
Aug-13	EPY6/GPY3				
Sep-13	EPY6/GPY3	Electric PY7-9 Using TRM#2			
Oct-13	EPY6/GPY3	Gas PY4-6 Using TRM#2	Draft for EPY5 & GPY2		
Nov-13	EPY6/GPY3			Staff <del>R</del> Report to ICC.	
Dec-13	EPY6/GPY3		Final for EPY <del>5</del> 4 &	ICC <del>I</del> nitiating Order for joint docket.	
Jan-14	EPY6/GPY3			<del>I</del> f contested, Initial & <del>R</del> eReply <del>e</del> Comments, <del>A</del> l <del>T</del> proposal, Briefs	
Feb-14	EPY6/GPY3				
Mar-14	EPY6/GPY3			TRM # <del>2</del> - <del>3</del> approved by ICC by 3/1.	TRM # <del>2</del> - <del>3</del> consensus info. filing by 3/1.
Apr-14	EPY6/GPY3				
May-14	EPY6/GPY3				
Jun-14	EPY7/GPY4				
Jly-14	EPY7/GPY4				
Aug-14	EPY7/GPY4				
Sep-14	EPY7/GPY4				
Oct-14	EPY7/GPY4		Draft for EPY6 & GPY3		
Nov-14	EPY7/GPY4			Staff <del>R</del> Report to ICC.	
Dec-14	EPY7/GPY4		Final for EPY <del>6</del> 4 &	ICC Initiating Order for joint docket.	

Comment [ICC Staff19]: We believe the utility proposal should show the timeline if there is not a consensus regarding the proposed TRM changes.

Comment [newStaff20]: One alternative is to have the Staff Report submitted in late December and the ICC Initiating Order in January

### 3 Policies for Applying the TRM to Energy Efficiency Programs

This section defines the policies various stakeholders will follow to apply the TRM in the implementation, evaluation, and planning of Illinois Energy Efficiency programs.

#### 3.1 Filing the TRM with the ICC [Disputed]

**Staff Position:** The TRM is filed and approved by the ICC annually before each Program Year. ~~The nature of the ICC approval is presumed to include every element of the TRM, including policy, individual algorithms and inputs.~~

**Utility Position:** The TRM is filed and approved by the ICC only once upon its initial completion. Thereafter, the TRM is filed as an informational filing. Any disputed items that are not resolved through the SAG process would be submitted separately to the ICC for resolution.

#### 3.2 SAG Consensus on TRM Development

Each Utility's Order enables it to implement energy efficiency programs and also provides guidance concerning the TRM. Generally speaking, these Orders describe the TRM's creation and maintenance as being a collaborative process between the Utilities (who in this context are also efficiency Program Administrators<sup>12</sup>), DCEO and the SAG.

As a result and as a document that applies statewide, the TRM has been and will continue to be developed through a collaborative consensus using the SAG process<sup>13</sup>. In practice, this means that the TAC will work toward consensus on the issue first, and then bring the result to the larger SAG for its review and comment. Once consensus develops at the SAG level, the TRM Administrator will include the changes in the next version of the TRM<sup>14</sup>.

In cases where consensus does not emerge out of the SAG process, the TRM Administrator will document the issue in a Comparison Exhibit and the non-consensus items will be submitted annually to the ICC for resolution. Until the ICC resolves the issue, the Program Administrators must use the existing TRM values. The Comparison Exhibit that is filed with the ICC will clearly lay out the different positions on non-consensus issues, and, to the extent possible, identify the parties who support each position.

**Comment [ICC Staff21]:** Under Staff's proposal, we expect the ICC to resolve the issue prior to March 1<sup>st</sup>.

#### 3.3 Applicability of the TRM

Consistent with Commission policy, the Program Administrators have the flexibility to add or retire measures from their programs unilaterally as markets, technology and evaluation results change. Therefore, Program Administrators are free to implement prescriptive measures that are not included in the TRM as long as such measures are submitted to the TRM ~~u~~Update ~~p~~Procedure. Similarly, Program Administrators are not required to implement every measure that is included in the TRM.

**Comment [ICC Staff22]:** Staff agrees with this position. The TRM Values and Reconciliation Proceedings dispute (Section 3.3.1) centers around this issue.

<sup>12</sup> Note that DCEO is also a Program Administrator who was enabled to operate programs by the energy efficiency legislation.

~~<sup>13</sup> As with all aspects of the TRM, this is true unless the Commission determines otherwise.~~

~~<sup>14</sup> The TRM Administrator's role has not been firmly established, but its role as described herein has been reviewed and accepted by the SAG.~~

### 3.4 Using the TRM to Calculate Savings

The TRM is intended to bring a high level of standardization to the measure savings that each Program Administrator (Utilities and DCEO) uses across the state. To accomplish the goal of statewide standardization, Program Administrators are required to use the prescriptive savings algorithms and input values that are provided in the TRM, subject to the following conditions for the three exceptions outlined below. ~~For Cases 1 – 3 above~~ below, the utilities and DCEO will present for comment to the TAC prior to using a value that is not in the TRM, and also submit the alternate value proposed variation to the TRM Update Procedure during the next update cycle. At least ten (10) business days prior to presenting Cases 1 – 3 to the TAC, the Program Administrator shall submit to the TRM Administrator and the SAG Facilitator the measure characterization and work papers in the approved work paper format so that the TAC has adequate time to meaningfully review and comment on the proposed variation to the TRM applicability. Furthermore, the utilities and DCEO bear retrospective risk if the ICC does not agree with measure values, including prescriptive savings inputs, used by the utilities and DCEO that differ from what is in the TRM. However, in cases where consensus is reached in the TAC that the proposed variation to the TRM applicability is appropriate, then the TRM Administrator shall inform the Evaluators that they may evaluate savings outside the TRM, in addition to performing savings verification using the Commission-approved TRM for Cases 1 and 3 below. If such proposed variation to the TRM applicability is stipulated for acceptance by all the parties in the utility's savings docket, the evaluation of this alternative approach may be used in measuring savings toward compliance with the Program Administrator's savings goals.

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1. The measure savings are being calculated on a custom basis.

A Program Administrator can choose to implement a TRM measure as a custom measure. Just because a measure is in the TRM does not mean that a Program Administrator must calculate savings for that measure prescriptively. The Program Administrator may choose to implement a measure through its own custom program, calculate savings using actual or on-site parameter values. However, once a measure is implemented on a custom basis within a particular program, all instances of the measure within that program must be implemented on a custom basis. Also, prior to treating a TRM measure as a custom measure in a particular program, the Program Administrators will notify the TAC, and the treatment of the measure as a custom versus a prescriptive measure will be discussed during the TRM Update Procedure during the next update cycle.

2. The measure does not yet exist in the TRM.

In this case, the Program Administrator is free to use algorithms and/or input values that do not yet appear in the TRM after discussing the new measure with the TAC. The Program Administrator shall provide to the TAC and TRM Administrator the Components of the TRM Measure Characterization contained in the Technical TRM, Section 2.3.7, and also work papers in the approved format. The results will be subject to the ~~usual evaluation and~~ ICC review requirements, and the new measure must be submitted to the TRM Update Procedure during the next update cycle.

Comment [SE23]: No new text, re-ordered it.

Comment [newStaff24]: Having misread this section several times we thought we would move things around in order to provide clarity.

3. The TRM measure definition or prescriptive savings inputs do not correctly characterize a measure that is already implemented in an existing program.

Through the TRM development process, the TAC attempted to identify all of the measures that are currently being implemented in programs. The TAC also worked to ensure that the prescriptive savings inputs describe how the measure is being implemented in all of the current programs. However, the measures or prescriptive savings inputs in the TRM may differ from how the measure is actually being implemented in a particular program, especially over time as programs and markets evolve. If the TRM measure or prescriptive savings inputs do not match how a measure is implemented in an existing program, the utilities and DCEO may modify savings inputs as long as the TAC is notified of the change prior to the utility using the modified savings inputs, and the measure definition change and/or modified prescriptive inputs are submitted to the TRM Update Procedure during the next update cycle. ~~For Cases 1 – 3 above, the utilities will present for comment to the TAC prior to using a value that is~~

Comment [newStaff25]: What are the "usual evaluation and ICC review requirements"?

~~not in the TRM, and also submit the alternate value to the TRM Update Procedure during the next update cycle. At least ten (10) business days prior to presenting Cases 1–3 to the TAC, the Program Administrator shall submit to the TRM Administrator and the SAG Facilitator the measure characterization and work papers in the approved work paper format so that the TAC has adequate time to meaningfully review and comment on the proposed variation to the TRM applicability. Furthermore, utilities bear retrospective risk if the ICC does not agree with measure values, including prescriptive savings inputs, used by the utilities that differ from what is in the TRM.~~

If a SAG/TAC participant believes that the TRM measure characterization does not adequately reflect savings of a measure, then it should inform the SAG/TAC of its concern and present an alternative. If consensus is reached that the alternative is more appropriate, then the TRM Administrator shall inform the Evaluators to also calculate savings under this alternative, in addition to performing savings verification using the Commission-approved TRM. If such alternative calculation is stipulated for acceptance by all the parties in the utility’s savings docket, this alternative value may be used in measuring savings toward compliance with the Program Administrator’s savings goals.

### 3.4.1 TRM Mistakes

If a significant mistake is found in the TRM that results in an unreasonable savings estimate, the Program Administrators, Evaluators, TRM Administrator, and SAG will strive to reach consensus on a solution that will result in a reasonable savings estimate. For example, an unreasonable savings estimate may result from an error or omission in the TRM, or an assumption in the TRM that is found to differ significantly from actual program findings. ~~In only these limited cases where there is consensus that the TRM contains a significant mistake will TRM updates occur within a program year and outside of the TRM update schedule defined in Section 4.~~

**Comment [ICC Staff26]:** Staff believes this is a deviation from the TRM, not a TRM update.

In these limited cases where consensus is reached, the TRM Administrator shall inform the Evaluators to use corrected TRM algorithms and inputs to calculate energy and capacity savings, in addition to using the Commission-approved TRM algorithms and inputs to calculate savings. If the corrected TRM algorithms and inputs are stipulated for acceptance by all the parties in the utility’s savings docket, then the corrected TRM savings verification values may be used for the purpose of measuring savings toward compliance with the Program Administrator’s energy savings goals. ~~Otherwise, errors found in the TRM will be officially corrected through the annual TRM Update Process. Program Administrators should provide sufficient justification for using the alternate solution within a memo to the SAG/TAC for comment prior to using the alternate measure or prescriptive savings assumption. This documentation will also be used for the TRM update process.~~

### 3.5 Applying Deemed Incremental Costs to Measure Screening

**Comment [newStaff27]:** Are the load shapes specified in the TRM optional like the incremental cost values are?

Most measures include at least one deemed incremental cost(s) as a default value(s). However, Direct Install programs, for instance, 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, describe and seek comment from the TAC on custom incremental measure costs prior to their use and submit the change to the TRM Update Procedure during the next update cycle.

### 3.6 The TRM’s Relationship to Portfolio Evaluation

~~Program Administrators will update their tracking systems and other program delivery systems to collect and track appropriate data needed to support TRM application. Program Administrators, with input from the TAC, will collaborate with Evaluators prior to the start of each program year to define data collection to support TRM application and updating, while minimizing unnecessary cost and burden on Program Administrators, Evaluators and customers. However, Evaluators are not obligated to support TRM updating if such work is not within the Evaluator’s budget or would compromise their primary goal of measuring portfolio and program savings~~

**Comment [newStaff28]:** This information is already listed in the Stakeholder Roles and Responsibilities section. Staff proposes deleting this because it is redundant.



verification.

Evaluators shall perform *savings verification* (see glossary section) and present savings estimates based on TRM values within the evaluation reports of the Utilities’ and DCEO’s energy efficiency portfolios. ~~These savings verification values shall be used for the purpose of measuring savings toward compliance with Program Administrators’ energy savings goals. Evaluators shall perform net to gross research consistent with utility orders. Additionally, where possible based on available budgets, the~~ Evaluators may also perform *measure and/or program level research* (see glossary section). Savings verification values and, where present, measure or program level research shall be provided in the annual independent evaluation report required pursuant to 220 ILCS 5/8-103(f)(7) and 220 ILCS 5/8-104(f)(8), ~~although each will be presented in separate sections of the report. Evaluation results for each Utility will be applied in accordance with the ICC Orders approving that Utility’s energy efficiency plan.~~

**Comment [ICC Staff29]:** This inserted language is contingent on the ICC annually approving the TRM, and on the ICC having authority to direct utilities to fire TRM Administrator if it’s found to not be acting independently.

~~For savings verification, evaluators will estimate energy and capacity savings for prescriptive measures as the product of participants, quantities, net to gross ratios, and unit savings.~~

- ~~Evaluators will verify participants and installed quantities, consistent with approaches defined in Evaluator work plans.~~
- ~~Evaluators will apply net to gross ratios consistent with the net to gross policies defined in ICC Orders approving Utility Energy Efficiency Plans.~~
- ~~Evaluators will calculate unit savings for prescriptive measures included in the TRM using applicable TRM algorithms, deemed values, and default values, using the following approach and schedule:~~
  - ~~For savings achieved in EPY4/GPY1, Evaluators will apply unit savings included in Utilities’ approved Energy Efficiency Plans.~~
  - ~~For savings achieved in EPY5/GPY1/GPY2, Evaluators will verify savings based on the initial TRM approved by the ICC; and~~
  - ~~For savings achieved in future Program Years, Evaluators will verify savings values based on the TRM Update finalized by March 1<sup>st</sup> approved by the Commission prior to the start of the Program Year under evaluation.~~

**Comment [ICC Staff30]:** Savings verification is already defined in the glossary. Table 2.2: TRM Implementation Cycle already specifies which TRM is applicable to which program year. Staff proposes deleting this because it is redundant.

For any measures not included in the TRM, including custom measures, prescriptive measures not yet incorporated into the TRM, and prescriptive measures Program Administrators choose to implement using custom savings calculations, Evaluators will develop appropriate savings calculations, consistent with policy direction provided in ICC Orders and Evaluator Work Plans.

**Comment [newStaff31]:** Will SAG have opportunity to review the policy direction proposed in the Evaluator Work Plans?

### 3.6.1 Ex-Post versus Ex-Ante Application of Evaluation Results [Disputed]

~~Evaluation and savings verification results do not change the TRM values for the most recent program year, and are instead applied ex ante for the purpose of determining the next program year’s claimed savings values. Program Administrators only bear evaluation risk when deviating from the TRM.~~

**Comment [ICC Staff32]:** We believe that the means by which evaluation results are incorporated into the TRM has been clearly outlined in other places in this document. The imprecise statement here simply clouds the issue; it should be removed.

### 3.6.2 Reporting Multiple Savings Estimates (“Dual Savings”) [Disputed]

**Staff Position:** Evaluation reports must report both TRM values and any alternative or custom values that the Program Administrator may have used when a measure is not implemented exactly as specified in the TRM. If ~~e~~ Evaluators develop alternate measure-level savings estimates through evaluation, ~~e~~ Evaluators must report savings based on the TRM values as well as the alternate evaluator-developed savings value. Any proposed changes to measure-level savings based on the evaluation will be discussed during the annual TRM Updating Process.

**Utility Position:** Evaluation reports must report only the actual value that was used when a measure ~~is~~ not implemented exactly as specified in the TRM. In addition, any new measure-level values developed through EM&V

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will not be reported in evaluator reports. Any proposed measure-level savings by evaluation will be discussed during the annual TRM Updating Process.

### 3.7 The TRM’s Relationship to Portfolio Planning

The most current TRM that is ~~filed with~~ approved by the Commission ~~each program year~~ shall be used in the preparation of the Utilities’ and DCEO’s energy efficiency plans. The Program Administrators will use the TRM Measure Codes in their Plan filings to allow for easy review and transparency across programs and portfolios. The Utilities and DCEO are permitted to use additional assumptions other than those contained within the TRM in their Plan filings (including incremental costs if better values are available), provided they include a description of why they believe the deviation from the TRM is appropriate (e.g., a particular measure may be in the process of getting updated in the TRM at that time) and notify the TAC of the choice. However, Program Administrators must also show planning estimates from using TRM assumptions for comparison purposes within their Plan filings.

Program Administrators adding new prescriptive measures to their portfolios must submit these measures for possible inclusion in future TRM updates. The TRM Administrator and SAG will identify appropriate measures to include in future TRM Updates, using the process identified in Section 2 of this document.

~~There are no specific requirements for Program Administrators to complete annual or other shorter term plans. Because Evaluators will apply TRM algorithms to calculate prescriptive measure savings and cost effectiveness, Program Administrators will use TRM algorithms and savings values when preparing any shorter term plans to manage their Energy Efficiency portfolios.~~

**Comment [ICC Staff33]:** This was removed from page 12 of the 7/18/12 TRM solely because it was a policy issue.

**Comment [ICC Staff34]:** The TRM Values and Reconciliation Proceedings dispute (Section 3.3.1) centers around this issue.

## 4 Glossary

**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.

*Synonym:* **Evaluation, Measurement and Verification (EM&V)**

**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 Program Administrator 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.

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

**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 measures 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.

**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.

**Comment [newStaff35]:** Not all prescriptive measures are in the TRM.

**Comment [newStaff36]:** And Evaluator? (when it performs savings verification)

**Comment [newStaff37]:** And Evaluator? (when it performs savings verification)

**Comment [newStaff38]:** And Evaluator? (when it performs savings verification)

**Comment [newStaff39]:** Are\*

## 5 Summary of Disputed Policy Items

Table 5.1: Summary of Disputed Policy Items

Policy Item	Staff Position	Utility Position
<p><b>3.1</b> <b>Filing the TRM with the ICC</b></p>	<p>The TRM is filed <u>and</u> approved by the ICC annually before every Program Year. <del>The nature of the ICC approval is presumed to include every element of the TRM, including policy, individual algorithms and inputs.</del></p>	<p>The TRM is filed <u>and</u> approved by the ICC only once upon its initial completion. Thereafter, the TRM is filed as an informational filing. Any disputed items that are not resolved through the SAG process would be submitted separately to the ICC for resolution.</p>
<p><b>3.6.2</b> <b>Reporting Multiple Savings Estimates (“Dual Savings”)</b></p>	<p>Evaluation reports must report both TRM values and any alternative or custom values that the Program Administrator may have used when a measure is not implemented exactly as specified in the TRM, plus any alternate measure-level savings determined through evaluation.</p>	<p>Evaluation reports must report only the actual value that was used when a measure <u>is</u> not implemented exactly as specified in the TRM. Any new measure-level savings determined by evaluation will be considered in the next <u>EM&amp;V-TRM</u> update process, and will not be reported in evaluation reports as alternate savings.</p>
<p><b>TRM Administrator Independence</b></p>	<p>Consistent with the Evaluator subcontracts, the TRM Administrator subcontract should include a provision that allows the ICC to unilaterally end the contract if it deems that the TRM Administrator is not acting independently. <u>Otherwise, the TRM Administrator is beholden to the Program Administrators.</u></p>	<p>The TRM Administrator subcontract should not include a provision that allows the ICC to unilaterally end the contract if it deems that the TRM Administrator is not acting independently, <u>as this makes the TRM Administrator beholden to Staff.</u></p>

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**Comment [ICC Staff40]:** Staff would not remove the TRM Administrator, only the Commission could. Staff believes that the Commission would take such a decision quite seriously.

**Comment [newStaff41]:** Compromise, eliminate both Staff’s inset and utility high-light phrase regarding beholden to Staff.

Rather than the utility holding the TRM administrator contract, would the utilizes prefer that the Commission hold the contract?