

**Weighted Average Measure Life
Report**

**Illinois Energy Efficiency Stakeholder Advisory Group
(IL EE SAG)**

February 20, 2018

Report Prepared by the
IL EE SAG Facilitation Team
Celia Johnson
Annette Beitel

Illinois Energy Efficiency Stakeholder Advisory Group Weighted Average Measure Life Report

I. Executive Summary

The Illinois Energy Efficiency Stakeholder Advisory Group (“SAG”) held two meetings in response to directives from the Illinois Commerce Commission (“ICC” or “Commission”) in the August 2017 Final Order tariff approval dockets for Ameren Illinois Company (“Ameren Illinois”) and Commonwealth Edison Company (“ComEd”).^{1 2 3}

This Weighted Average Measure Life (“WAML”) Report summarizes the work and conclusions of the SAG to address directives from the Commission. Specifically, this report describes the initial WAML methodologies proposed by the utilities, an overview of the meetings held, and describes consensus resolution.

WAML is a new calculation that is required for the electric utilities Ameren Illinois and ComEd by the Future Energy Jobs Act. Specifically, Section 8-103B(e) allows a utility to create a regulatory asset and to amortize and recover the total expenditures of that regulatory asset “over a period that is equal to the weighted average of the measure lives implemented for that year that are reflected in the regulatory asset.” During SAG WAML meetings held in Fall 2017, interested parties agreed on a WAML methodology to be utilized by Ameren Illinois and ComEd during their 2018-2021 energy efficiency plans (January 1, 2018 – December 31, 2021).

SAG reached consensus on the two issues directed by the Commission. First, parties agree that the same WAML methodology should be used by Ameren Illinois and ComEd. Second, the parties agreed that WAML should be calculated using the methodology presented by ComEd in Docket 17-0287, in the following manner:

$$\text{Weighted Average Measure Life}_{\text{Year}=n} = \frac{\sum_{\text{measure}=1}^N (\text{ML} \times \text{KWh}_{\text{gross}})}{\sum_{\text{measure}=1}^N (\text{KWh}_{\text{gross}})}$$

Where:

N = total number of measures in year *n*.

ML = measure life of the measure. Specifically, “measure life” is the life over which the measure will be providing at least some savings (i.e. not the average “savings life” so not adjusted for any degradation of savings over time associated with the measure).

kWh gross= first-year gross energy savings of the measure for the year.

¹ See ICC Docket No. 17-0288 (Ameren Illinois) and ICC Docket No. 17-0287 (ComEd).

² Pursuant to subsection (k) of Section 8-103B of the Illinois Public Utilities Act, Ameren Illinois filed its petition for approval of a tariff authorized under Section 8-103B(d), Rider EE – Energy Efficiency and Demand Response Investment (Rider EE) with the Commission in docket 17-0288.

³ Pursuant to subsection (k) of Section 8-103B of the Illinois Public Utilities Act, ComEd filed its petition for approval of a tariff authorized under Section 8-103B(d), Rider EEPP – Energy Efficiency Pricing and Performance with the Commission in docket 17-0287.

The SAG Facilitation Team appreciates the good faith participation by the utilities Ameren Illinois and ComEd and interested SAG participants in addressing the Commission’s WAML methodology directives.

II. Objective

The objective of the SAG WAML meetings was to address directives from the Commission to the SAG in ICC Docket No. 17-0288 (Ameren Illinois) and ICC Docket No. 17-0287 (ComEd). Excerpted “Commission Analysis and Conclusions” language is provided in Section III below.

Two specific issues were addressed in SAG WAML meetings:

1. Whether Ameren Illinois and ComEd should utilize the same method to calculate WAML and, if so;
2. Which methodology should be used to calculate WAML.

III. Commission Directives

“Commission Analysis and Conclusions” language from ICC docket EE formula rate Final Orders is excerpted below. Directives to SAG are indicated in underlined text.

Ameren Illinois EE Formula Rate Docket

Commission Analysis and Conclusions (page 11):

- The parties disagree about the methodology that should be approved for AIC's WAML calculation. The WAML will be used to determine the amortization period of the regulatory asset input for the EE formula rate. Staff indicates that the Company's proposed methodology is consistent with the requirements of Section 8-103B(e). However, Staff states that AIC and ComEd have chosen different methods for calculating the WAML and maintains that there is no reasonable basis for the two utilities to use different methodologies. Staff recommends ComEd and AIC be directed to use the same methodology and prefers that of ComEd.
- AIC explains that there are two key differences in the elements of the two approaches: (1) AIC's proposal uses net whereas ComEd proposes to use gross savings; and (2) AIC's proposal weighs lifetime savings more heavily while the ComEd formula weighs first year savings more heavily. The Company asserts that its methodology more closely aligns with the provisions of the PUA, as amended by PA 99-0906. The AG asserts that there is insufficient evidence in the record to perform the analysis necessary to ensure that the most equitable, reasoned, appropriate methodology is being adopted for the benefit of the customers, who will be paying for the EE programs.
- The parties agree that generally, under AIC's proposal, customers would make smaller payments over a longer period of time and under ComEd's proposal, customers would make higher payments over a shorter period of time. The Company and Staff agree that it would be difficult to determine the effect of the net present value of the payments, and no such analysis is presented in the record. The Commission notes all parties agree that both WAML methodologies are consistent with the law; that the WAML methodologies

would affect rates differently; and that the effect either methodology will have on rates is unknown. The Commission adopts the recommendation of the AG and directs the Company and Staff, with interested parties, within 90 days, to present the issue of the WAML methodologies and their impact on energy efficiency regulatory asset amortization periods and customer rates, as well as the most appropriate implementation method, to the SAG, to attempt to reach a consensus. SAG shall file a report with the Commission summarizing the conclusions reached in the SAG process.

ComEd EE Formula Rate Docket

Commission Analysis and Conclusions (pages 7-8):

- Illinois' first electric energy efficiency portfolio standard was enacted in 2007 by the General Assembly through the enactment of Section 8-103 of the Act. This Section required electric utilities to use cost-effective energy efficiency measures to reduce both delivery load and direct and indirect costs to consumers. 220 ILCS 5/8-103(a). In order to achieve the energy savings goals identified in Section 8-103, electric utilities filed energy efficiency plans every three years for the next three-year planning period. 220 ILCS 5/8-103(f). Section 8-103 also authorized electric utilities to place into effect an automatic adjustment clause tariff to recover the costs they incur in implementing their energy efficiency plans. 220 ILCS 5/8-103(e). ComEd's Rider EDA was approved by the Commission pursuant to this Section in Docket No. 07-0540. See *In re Commonwealth Edison Co.*, Docket No. 07-0540, Order at 56-57 (Feb. 6, 2008).
- On June 1, 2017, ComEd filed a tariff cancelling its Rider EDA and on June 9, 2017, it subsequently filed its petition requesting the approval of its proposed Rider EEPP and the cost components and other data forming the initial inputs to the Rider EEPP formulae. These filings were prompted by the fact that on June 1, 2017, P.A. 99-0906 became effective. P.A. 99-0906 includes many new and amendatory provisions to the Act and the IPA Act. These changes include substantial revisions to the design and implementation of energy efficiency programs in Illinois, as well as to how a utility may recover the costs it incurs related to the programs. Pursuant to this legislation, after December 31, 2017, the current energy efficiency requirements applicable to electric utilities and the IPA under Section 8-103 and 16-111.5B will no longer be effective. P.A. 99-0906 replaces these provisions with the new Section 8-103B.
- Following the cancellation of the prior Section 8-103 tariff, this new Section authorizes utilities to defer and recover energy efficiency expenditures through either a new tariff described in Section 8-103B(d) or through a rate case under Article IX or Section 16-108.5 of the Act. 220 ILCS 5/8-103B(k). As noted above, ComEd has elected to file an energy efficiency formula rate tariff – Rider EEPP – and the corresponding cost inputs under the new Section 8-103B.
- There is no dispute between the parties concerning whether the Commission should approve ComEd's proposed Rider EEPP or the underlying formulae, although Staff objects to the date on which the credits can be applied to customers' bills and the AG recommends that the Commission direct ComEd, Staff, and interested stakeholders to engage in an evaluation of WAML methodologies in the SAG process. ComEd has presented testimony and exhibits that provide a comprehensive summary of Rider EEPP and the cost inputs and other data necessary to populate the EE Formula Rate. Moreover,

ComEd has demonstrated that Rider EEPF meets the criteria and objectives set forth in Section 8-103B of the Act. Specifically, ComEd's proposed Rider EEPF establishes the formulae that determine ComEd's net energy efficiency requirement and the resulting charges to customers, as well as the cost components that form the inputs to those formulae. See 220 ILCS 5/8-103B(d)(2), (k); ComEd Ex. 1.0 at 10-11. It does so with sufficient specificity for the process to operate in a standardized and transparent manner and with annually updated inputs that reflect ComEd's energy efficiency costs to be recovered during the applicable year as required by Section 8-103B(d)(2). See 220 ILCS 5/8-103B(d)(2). Additionally, Rider EEPF includes the protocols established by Section 8-103B(d)(2), including recovery of incentive compensation and pension and other post-employment benefits expenses and existing regulatory and capital assets, amortization of costs incurred under Section 8-103B, and projected, weather normalized billing determinants for the application year. ComEd Ex. 1.0 at 10-12. Finally, Rider EEPF provides for an annual reconciliation that "trues-up" the forecasted costs from the prior year's energy efficiency revenue requirement with the actual cost data to determine the final reconciliation energy efficiency revenue requirement for the applicable period. Id. at 15-16.

- Accordingly, the Commission approves Rider EEPF since it complies with the requirements of Section 8-103B, is generally uncontested, and its EE Formula Rate and derived revenue requirement will produce just and reasonable rates. As discussed below in Section II.B.4, the Commission agrees with ComEd and the AG that the statute authorizes the implementation of Rider EEPF as of ComEd's proposed October 2017 effective date.
- Finally, given the importance of the WAML calculations as they relate to customer rates and the expedited schedule required in this docket, the Commission agrees with the AG that it would be useful if ComEd, Staff, and interested stakeholders engaged in further analysis of WAML methodologies through the SAG. The Commission is not making any determination that the methodology used by ComEd and Ameren must be the same but rather concludes that this is a topic that merits further evaluation. For this reason, the Commission directs ComEd, Staff, and interested stakeholders to present the issue of WAML methodologies and their impact on energy efficiency regulatory asset amortization periods and customer rates, as well as the most appropriate implementation method, to the SAG within 90 days of the issuance of this Order. The advisory committee shall file a report, which may be prepared by the SAG facilitator, with the Commission summarizing the conclusions reached in the SAG process.

IV. Disclaimer

SAG discussions are intended to be in the nature of settlement discussions. As a matter of general agreement, written and/or oral positions or statements made by another party during SAG meetings shall not be used by any party to contradict or impeach another party's position, or prove a party's position, in a Commission proceeding.

V. Process

The SAG Facilitation Team followed up with interested parties in Fall 2017 to determine if additional analysis was required to resolve the WAML issues. Stakeholders requested additional analysis from the utilities prior to the first meeting, for illustrative purposes. Specifically, stakeholders requested more information on the revenue impact and the rate impact of using each WAML formula on the total Rider on an annual basis for 13 years. Ameren Illinois and ComEd were asked to calculate the impact using both WAML formulas. Each utility proposed a different formula/method in individual EE tariff approval dockets, as described in Section VI, Proposed Methods.

The SAG Facilitation Team sent notice to the SAG distribution list describing the WAML issue and requesting participation in upcoming meetings on November 2, 2017.

The SAG Facilitation Team held two SAG teleconference meetings to discuss WAML (November 9 and November 28, 2017). Meeting materials were circulated directly to participants and were not posted on the SAG website. A summary of each meeting is described in Section VIII, Meetings.

VI. Proposed Methods

Ameren Illinois and ComEd proposed unique methods to calculate WAML in their tariff approval dockets. Each proposed method is described below, including the formula used to calculate WAML.

Ameren Illinois Proposed Method

$$\text{Weighted Average Measure Life ("WAML")} = \frac{\sum(\text{Measure life} \times \text{Net lifetime savings})}{\text{Net Portfolio lifetime savings}}$$

Where:

Measure Life = Specific measure life in years of each individual measure.

Net lifetime savings = Net lifetime savings of each individual measure in the model.

Net Portfolio lifetime savings = Total net lifetime savings of the entire portfolio model.

ComEd Proposed Method

$$\text{Weighted Average Measure Life}_{\text{Year}=n} = \frac{\sum_{\text{measure}=1}^N (\text{ML} \times \text{KWh}_{\text{gross}})}{\sum_{\text{measure}=1}^N (\text{KWh}_{\text{gross}})}$$

Where:

N = total number of measures in year *n*.

ML = measure life of the measure.

kWh gross = first-year gross energy savings of the measure for the year.

VII. Participation

Utility participants in the WAML SAG meetings included representatives of Ameren Illinois, ComEd, and Nicor Gas. Governmental stakeholder participants included the Illinois Attorney General's Office ("IL AG") and Commission Staff ("ICC Staff"). Additional stakeholder

participants included Applied Energy Group, CLEAResult, DNV-GL, Franklin Energy, Natural Resources Defense Council (“NRDC”), Navigant Consulting, Opinion Dynamics, and Vermont Energy Investment Corp.

VIII. Meetings

SAG held two teleconference meetings to discuss and reach agreement on the WAML issues. Meetings are described below.

1. SAG WAML Meeting #1

The first SAG meeting to discuss WAML was held on November 9, 2017. The purpose of the first meeting was twofold: 1) For Ameren Illinois and ComEd to present an overview of WAML analysis results and revenue requirements and educate SAG participants on the differences between each methodology, and 2) to identify any additional stakeholder questions.

Ameren Illinois and ComEd both presented an overview of their WAML methodologies and analysis and answered questions. Stakeholders requested additional information as a follow-up to the first meeting, including:

1. ICC Staff requested an Excel file of data from ComEd.
2. IL AG’s consultant requested more information from the utilities on the assumptions on which the calculations are based:
 - a. Request 1: For 2018 through 2045 (or the end year in which the regulatory asset for all spending years is fully recovered), provide the annual revenue requirements, customer impact, and annual impact on rate class under each of the WAML options based upon the existing laws governing state and federal income taxes. In the response, provide the assumptions included in the calculations, including:
 - i. The annual spend each year;
 - ii. The state and federal income tax rates used in each of the years of the analysis; and
 - iii. The cost of capital used in each of the years of the analysis.
 - b. Request 2: For 2018 through 2045 (or the end year in which the regulatory asset for all spending years is fully recovered), provide the annual revenue requirements, customer impact, and annual impact on rate class under each of the WAML options based upon the change in law concerning federal income taxes that is being discussed and the existing law governing state income taxes. In the response, provide the assumptions included in the calculations, including:
 - i. The annual spend each year;
 - ii. The state and federal income tax rates used in each of the years of the analysis; and
 - iii. The cost of capital used in each of the years of the analysis.

3. SAG WAML Meeting #2

The second SAG meeting to discuss WAML was held on November 28, 2017. The purpose of the second meeting was to reach agreement on which WAML methodology is preferable. The utilities provided requested follow-up information from Meeting #1 in advance of Meeting #2, to compare the estimated impacts of the different scenarios using both WAML methodologies.⁴

During the second meeting, interested parties agreed that the same WAML methodology should be used by Ameren Illinois and ComEd. IL AG and NRDC shared their position that WAML should be calculated in the following manner: *the sum of the lifetime savings divided by the sum of the first year savings*, which produces the average duration of savings and therefore would align the timing of recovery of energy efficiency program costs with the timing of efficiency program benefits. The IL AG/NRDC approach is a little different from the method utilized by ComEd in that it adjusts WAML to account for the degradation of savings over time that some efficiency measures experience. However, the IL AG and NRDC also indicated they preferred the methodology proposed by ComEd to the method proposed by Ameren Illinois. No parties objected to using the methodology proposed by ComEd during the second meeting. ICC Staff did not share a preference for either method. Ameren Illinois requested time to follow-up on the suggested method.

The rationale for selecting the methodology proposed by ComEd is that the approach treats measures as if they are capital investments analogous to supply alternatives. The decision not to adjust for savings degradation over time for some measures is consistent with this principle because the amortization is related to the physical life of the measure rather than to changes in how consumers use the measure over time or changes to the baseline products consumers would otherwise have purchased (i.e. the two things that cause savings degradation do not affect the actual life of a product). Similarly, the decision to focus on gross savings rather than net savings in the calculation is consistent with this principle because it focuses on the physical asset on which utility capital (e.g. a financial incentive) is spent, with such capital being invested in free rider measures as well as those that are not free riders.

Following WAML Meeting #2, Ameren Illinois confirmed its agreement to follow the suggested method:

Ameren Illinois has appreciated the SAG process where various methods for calculating the weighted average measure life were presented and discussed. In addition, Ameren Illinois recognizes: 1) The need for an ongoing spirit of compromise among SAG members, 2) There could be significant costs related to further debate and analysis of this issue, and 3) Use of first year, gross savings in the calculation reflects rational energy efficiency policy. As a result, Ameren Illinois agrees to use gross, first-year savings as the weighting factor when calculating the weighted average measure life of the regulatory asset.

⁴ The utilities did not provide the IL AG's second request to analyze what the rate impacts would be under a new and different Federal income tax law because parties agreed that any new Federal tax was not defined at that time.

IX. Conclusion

The SAG Facilitation Team appreciates the good faith participation by both Ameren Illinois and ComEd to address the Commission's directives related to WAML in a timely manner. Additionally, other interested SAG participants are appreciated for their engagement. All parties on the SAG distribution list were provided an opportunity to participate in SAG WAML Meetings. The WAML issues and consensus resolution for each issue are briefly described below.

Issues:

1. Whether Ameren Illinois and ComEd should utilize the same method to calculate WAML and, if so;
2. Which methodology should be used to calculate WAML.

Consensus Resolution:

1. The same WAML methodology should be used by Ameren Illinois and ComEd.
2. WAML should be calculated in the following manner:

$$\text{Weighted Average Measure Life}_{\text{Year}=n} = \frac{\sum_{\text{measure}=1}^N (\text{ML} \times \text{KWh}_{\text{gross}})}{\sum_{\text{measure}=1}^N (\text{KWh}_{\text{gross}})}$$

Where:

N = total number of measures in year *n*.

ML = measure life of the measure. Specifically, "measure life" is the life over which the measure will be providing at least some savings (i.e. not the average "savings life" so not adjusted for any degradation of savings over time associated with the measure).

kWh gross= first-year gross energy savings of the measure for the year.