

## **Attachment 1:**

### **Proposed Revisions to the Technical Resource Manual and Deemed Savings Table**

- This Attachment describes proposed revisions to the Technical Resource Manual (TRM) and Deemed Savings Table. These documents were submitted as part of the Ameren Missouri 2019-2021 MEEIA Cycle, later extended for 2022, 2023, and 2024, as Appendix F (Deemed Savings Table) and Appendix G, H, I (TRM Volumes 1-3), on October 25, 2018 in EO-2018-0211 and approved on December 5, 2018. Ameren Missouri previously requested:
  - A TRM revision on 12/31/2018 approved by the Commission on 2/27/2019.
  - A TRM revision on 11/15/2019 approved by the Commission on 12/11/2019.
  - A TRM revision on 06/19/2020 approved by the Commission on 07/08/2020.
  - A TRM revision on 10/16/2020<sup>1</sup> approved by the Commission on 11/12/2020.
  - A TRM revision on 9/15/2021 approved by the Commission on 9/29/2021.
  - A TRM revision on 9/27/2022<sup>2</sup> approved by the Commission on 10/12/2022.
  - A TRM revision on 10/5/2023 approved by the Commission on 10/25/2023.

The purpose of this update is to:

- Incorporate Evaluation Measurement & Verification (EM&V) results from the 2023 program year.
- Add an explanation of how the evaluator uses the TRM and Deemed Savings Table when evaluating measure savings
- Complete thorough review to identify and update source documentation.

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<sup>1</sup> A correction was filed on October 29, 2020.

<sup>2</sup> A correction was filed on September 28, 2022.

- Add measures for possible future offerings including Cool Roofs
- Update incremental cost for Residential HVAC systems.
- Delete measures that are no longer offered nor planning to be offered in 2025.

A description of these changes is provided below. The measure changes have been analyzed for cost effectiveness. To aid in Stakeholder review, all updates are included in the TRM and Deemed Savings table in track changes with redlines. Within the Microsoft Excel workbook that serves as the basis for the Deemed Savings tables, this includes:

- New changes included in red text.
- Modifications to existing text in red and strikethrough (~~change~~).
- A revision change log included in columns "V" through "YY" denoted input values by applicable revision date.

### **Revisions based on PY2023 Results:**

Updated to reflect plan year 2023 evaluations results, as provided by Opinion Dynamics.

Applicable input values have been updated within the MEEIA 2025-27 Deemed Savings Table (Appendix F) and corresponding TRM (Appendix G, H, & I). Examples include updates to items such as the following:

- Inputs to algorithms: Various inputs to the engineering algorithms used by the evaluator to calculate first year savings are updated based upon program tracking data and surveys. Examples of these updates include variables such as In Service Rates for business lighting, residential heating and cooling capacities and efficiencies, and results of the analysis of AMI data for residential DR energy and demand savings.

- Updated TRC tables (*Benefits 2019 \$*) calculation to reference 2023 avoided cost benefits and discount rates and discount cost and benefits in 2025 dollars.

### **New Measures/Updates to Existing Measures**

- Add an Efficient Pumps measure that includes clean water commercial & industrial pumps, circulator pumps and dedicated purpose pool pumps.
- Add an Efficient Cooling Tower commercial measure.
- Add Dedicated Outdoor Systems (DOAS) commercial measure.
- Revised the commercial air nozzle formula to align with the air leak formula, as both result in reducing air compressor load.
- Updated Air Purifiers, Dehumidifiers, Clothes Washers and Dryers, Refrigerators, Cooking equipment, and Room Air Conditioners using the most recent federal minimum standards and ENERGY STAR<sup>®</sup> criteria.
- Clarified the requirements for early retirement HVAC measures to include that the existing unit brand name and model number must be documented; or, if the nameplate is not readable, a photograph of the unit and the nameplate specifically must be provided.
- Removed residential measures such as Appliance Recycling measures, Water Heater Wrap, Thermostatic Restrictor Shower Valves, Foundation Sidewall Insulation, Kneewall and Sillbox Insulation, and Home Energy Reports.
- Removed commercial measures such as Fluorescent Delamping, High Performance and Reduced Wattage T8 Fixtures and Lamps, T5 Fixtures and Lamps, Metal Halide Fixtures and Lamps, Street Lighting, Laptop Computers, Computer Management Software,
- Modified many commercial Lighting channels to be applicable to Income eligible or BSS programs only.

- Adjusted all thermostat kWh savings to be zero in accordance with the Stipulation and Agreement for Program Years 2025-2027.
- Updated lighting baselines to allow the existing bulb wattage to be used as the baseline when LEDs are directly installed in a customer's home but shortened the effective useful life to 8 years in income-eligible scenarios and 2 years in non-income eligible scenarios, consistent with the most recent version of the IL TRM.
- Added LED nightlights and Cool Roofs.
- Updated the incremental cost for Residential HVAC systems based on the most recent version of the IL TRM.
- Completed the transition to SEER2 and HSPF2 for HVAC systems.
- Revised the placeholder for potential Winter demand Response measures based on additional analysis from the evaluator.

### **Clean-up items**

- Updated source documentation to remove non-functional links, provide new functioning links and updates to more recent sources.
- Applied a color-coded system in the Deemed Savings Table to identify parameters that:
  - Are planning values based on historical results and the evaluation will use actual values from program tracking data.
  - Are historical values that may be updated based on evaluation activities such as surveys.
  - Are historical values that will not be updated in the evaluation.