Memorandum

To: IL TRM stakeholders and interested parties

**FROM:** KEITH CRONIN, PROJECT MANAGER and SAM DENT, TECHNICAL LEAD - VEIC

subject: IL TRM Version 13.0 – Change impact Summary

date: 06/28/2024

**Cc:** CELIA JOHNSON, SAG

VEIC has now submitted the first draft of the version 13.0 Illinois Technical Reference Manual (TRM) to the Technical Advisory Committee (TAC).

This memo is provided as an aid for the utilities and other TAC participants to help disseminate information on the proposed updates to additional stakeholder groups who may be less involved in the TAC discussions or aware of their potential outcomes. The goal is to promote a wider high-level understanding of the proposed changes that are likely to have the highest impact on a measure’s savings and/or cost effectiveness, or require changes to how measures are implemented, in order that program implementation plans can progress with the awareness of where changes to offerings may occur.

Please note that all changes listed are still in draft and subject to continued change through the remainder of the update process, and additional high impact changes may still arise. However, this early view of the proposed changes will allow any input from the additional stakeholder groups to be provided before final decisions are made, allowing the TAC appropriate time to review, discuss, and reach consensus on the appropriate path forward.

As always, we welcome any feedback to the value of this memo and how its content could be improved to further help get the TRM related information where it needs to be. Please send any comments or questions on the content to [iltrmadministrator@veic.org](mailto:iltrmadministrator@veic.org).

| **Market** | **End Use** | **Measure Name** | **Summary of Impactful Changes** | **Potential Impact** | **Expected Utility Change** |
| --- | --- | --- | --- | --- | --- |
| Commercial | Multiple | Multiple | The climate data used to inform temperature related assumptions is being updated to a more recent data set to better reflect the current and potential future climate. This will impact any measure that is impacted by outside temperatures. This year the focus is on commercial assumptions that are derived from OpenStudio modeling. Work is continuing and resultant changes have not yet been made. | Work is continuing, but it is likely that cooling based savings will increase and heating savings decrease. |  |
| Commercial | Agricultural | Greenhouse Thermal Curtains | Reduction in measure cost | Improved cost effectiveness |  |
| Commercial | Food Service | ENERGY STAR Convection Oven, Fryer. Griddle, Food Holding Cabinet. | Increase in coincidence factor. | Increase in summer kW savings. |  |
| Commercial | Food Service | Rack Oven | Deemed/default value corrected. | Decrease in deemed savings. |  |
| Commercial | Hot Water | Water Heater | Large units fuel switch calculation updated. | Decrease in savings. |  |
| Commercial | HVAC | Room AC | ENERGY STAR and CEE Tier 2 specification update. | Increase in savings. |  |
| Commercial | HVAC | Air and Water Source Heat Pump (Centrally Ducted and Ductless) | Addition of partial displacement scenarios (for hybrid systems). | Dependent on scenario |  |
| Commercial | HVAC | High Efficiency Boiler and Process Heating Boiler | Redaction of federal standard update from 2023. | Increase in savings |  |
| Commercial | HVAC | Commercial & Industrial Air Curtain | Addition of commercial applications. | New savings opportunity |  |
| Commercial | Refrigeration | Refrigeration Economizers | Analysis fix to reflect IL climate, resulting in reduction in savings. | Decrease in savings |  |
|  | | | | | |
| Residential | Multiple | ENERGY STAR Clothes Washer, Dishwasher,  Ozone Laundry, Pipe Insulation, Low Flow Aerators, Showerheads, Thermostatic Restrictor Valves, Shower Timer | Update to the assumed % homes within gas utility territories with electric v gas hot water. | Decreased electric and increased gas savings when defaults used. |  |
| Residential | Multiple | Induction Cooking, Duct Insulation, Energy Recovery Ventilator,  Heat Pump Water Heaters,  Air sealing and Insulation, Insulated Concrete Forms,  Tree Planting | Update to the assumed % homes within gas utility territories with electric v gas heating. | Decreased electric and increased gas savings when defaults used. |  |
| Residential | Appliances | ENERGY STAR Air Purifier/Cleaner | Addition of ENERGY STAR Most Efficient standard and update to baseline federal standard. | Decrease in savings |  |
| Residential | Appliances | ENERGY STAR Clothes Washer | Reduction to assumption of number of cycles. Increase in measure cost.  IQ savings also reduced due to increased efficiency assumed of second hand unit. | Decrease in savings and reduced cost effectiveness. |  |
| Residential | Appliances | ENERGY STAR Dehumidifier | Addition of Whole Home Dehumidifiers. Reduction in measure cost. | New savings opportunity |  |
| Residential | Appliances | ENERGY STAR Refrigerators | Reduction in measure cost. | Improved cost effectiveness |  |
| Residential | Appliances | Room AC | ENERGY STAR and CEE Tier 2 specification update. | Increase in savings. |  |
| Residential | Appliances | ENERGY STAR Clothes Dryer | Reduction to assumption of number of cycles. | Decrease in savings |  |
| Residential | Appliances | Income Qualified Room AC | ENERGY STAR and CEE Tier 2 specification update.  Note measure has been combined with non-IQ version. | Increase in savings. |  |
| Residential | HVAC | Air Source Heat Pump (Centrally Ducted, Ductless and Portable) | Addition of Portable Heat Pumps.  Clarifications on full load hour and part use assumptions. | New savings opportunity |  |
| Residential | HVAC | Boiler Pipe Insulation | Reduction in measure life and increase in cost. | Reduced cost effectiveness. |  |
| Residential | HVAC | Central Air Conditioning | Addition of assumptions for mobile homes. | New savings opportunity |  |
| Residential | HVAC | Duct Insulation and Sealing | Addition of methodology for duct insulation. | New savings opportunity |  |
| Residential | HVAC | Boiler | Reduction in measure cost. | Improved cost effectiveness |  |
| Residential | HVAC | Furnace | Reduction in measure cost. | Improved cost effectiveness |  |
| Residential | HVAC | High Efficiency Bathroom Exhaust or Radon Mitigation Fan | Addition of Radon mitigation fan savings. | New savings opportunity |  |
| Residential | HVAC | Central AC Tune-Up | Work is continuing on updating this measure with additional savings options including refrigerant management. | New savings opportunity |  |
| Residential | HVAC | Advanced Thermostats | New In Service Rate assumption for self-install applications. | Reduced savings for self-install applications. |  |
| Residential | Hot Water | Gas Water Heater | Increase in measure life and reduction in measure cost. | Improved cost effectiveness |  |
| Residential | Hot Water | Recirculating Pump Controls | Reduction in measure cost. Residential savings applications added. | Improved cost effectiveness and new savings opportunity |  |
| Residential | Shell | High Performance Windows | Update to Time of Sale baseline. | Increased savings for time of sale implementation. |  |

In addition, the following new measures are being proposed for inclusion for the first time in v13:

| **Market** | **End Use** | **Measure** |
| --- | --- | --- |
| Commercial | HVAC | Computer Room Air Conditioner (CRAC) |
| Commercial | HVAC | Steam Leak Repair |
| Commercial | Refrigeration | Zero Energy Doors for Refrigerated Cases |
| Commercial | Refrigeration | Door Gaskets for Walk-in and Reach-in Coolers and Freezers |
| Commercial | Miscellaneous | Elevator Modernization |
| Commercial | Miscellaneous | Commercial Secondary Windows |
| Residential | Appliance | ENERGY STAR All-in-One Clothes Washer-Dryer |
| Residential | Hot Water | Auto-Diverting Tub Spout System |
| Residential | Miscellaneous | Light Duty Electric Vehicle |