
MEMORANDUM

TO: IL TRM STAKEHOLDERS AND INTERESTED PARTIES

FROM: KALEE WHITEHOUSE, PROJECT MANAGER and SAM DENT, TECHNICAL LEAD - VEIC

SUBJECT: IL TRM VERSION 11.0 – CHANGE IMPACT SUMMARY

DATE: 07/12/2022

Cc: CELIA JOHNSON, SAG

VEIC has now submitted the first draft of the version 11.0 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.

Market	End Use	Measure Name	Summary of Impactful Changes	Potential Impact
Commercial and Residential	Multiple	Multiple	Addition of assumptions consistent with new energy code – IECC 2021.	N/A
Commercial and Residential	Multiple	Multiple	Addition of baseline assumptions for fossil fuels other than natural gas.	N/A
Commercial	Food Service	Combination Oven, Steam Cooker, ENERGY STAR Convection Oven, ENERGY STAR Fryer, ENERGY STAR Griddle	Addition of the characterization of electrification scenarios. Update for some measures based on new ENERGY STAR calculator	New implementation approach
Commercial	Food Service	ENERGY STAR Hot Food Holding Cabinets	Update based on new ENERGY STAR calculator	Reduction in savings
Commercial	Water Heating	Water Heater	Addition of the characterization of electrification scenarios.	New implementation approach
Commercial	Hot Water	Controls for Central Domestic Hot Water	Updated calculation approach and addition of multi family application	New savings approach
Commercial	HVAC	Package Terminal Air Conditioner (PTAC) and Package Terminal Heat Pump (PTHP)	Addition of the characterization of electrification scenarios.	New implementation approach
Commercial	HVAC	Combined Heat and Power	Methodology change to custom based approach based on carbon equivalency for electric calculation. Note emission/heat rate assumptions and gas savings methodology are still TBD.	New savings approach
Commercial	HVAC	Small Commercial Thermostats	Added midstream program efficiency assumptions.	New implementation approach
Commercial	Lighting	LED Bulbs and Fixtures	Changes to LED Screw Based Lamps due to DOE Final Rule on backstop provision of 40lumens/watt minimum. Multiple changes with most significant being reduction of measure life to two years and baseline becoming LED from mid 2023. Note this remains an active conversation and final characterization may differ.	Reduction in lifetime savings.
Commercial	Miscellaneous	Lithium Ion Forklift Batteries	Addition of the characterization of electrification scenarios.	New implementation approach

Market	End Use	Measure Name	Summary of Impactful Changes	Potential Impact
Residential	Appliances	ENERGY STAR Clothes Washer	Updated savings based on DOE reanalysis, addition of CEE Advanced Tier.	Dependent on scenario
Residential	Appliances	ENERGY STAR Freezer	Updated savings based on DOE reanalysis	Reduction in savings
Residential	Appliances	ENERGY STAR Refrigerator	Updated savings based on DOE reanalysis, addition of CEE Advanced Tier.	Reduction in savings
Residential	Appliances	ENERGY STAR Clothes Dryer	Addition of the characterization of electrification scenarios. Addition of heat pump dryer characterization	New implementation approach
Residential	HVAC	Centrally Ducted Air Source Heat Pump	Updated measure costs. Added midstream program efficiency assumptions. Discussions continuing on application of HSPF adjustment to account for low temperature performance.	Increased costs and potentially lower savings. New implementation approach
Residential	HVAC	Furnace Blower Motor	Increased measure cost	Increased cost
Residential	HVAC	Gas High Efficiency Furnace	Increased measure cost for mobile home applications	Increased cost
Residential	HVAC	Ground Source Heat Pump	Added midstream program efficiency assumptions.	New implementation approach
Residential	HVAC	Ductless Heat Pumps	Added midstream program efficiency assumptions. Additional factors to account for partial displacement. Discussions continuing on application of HSPF adjustment to account for low temperature performance.	Impact dependent on scenario. New implementation approach
Residential	Hot Water	Heat Pump Water Heaters	Addition of the characterization of electrification scenarios.	New implementation approach
Residential	Lighting	LED Specialty Lamps, LED Screw Based Omnidirectional Bulbs, LED Fixtures	Errata stating that deferred installs in 2023 and 2024 from measures purchased in 2021 and 2022 should use v10 assumptions. Multiple changes due to DOE Final Rule on backstop provision of 40lumens/watt minimum, with most significant being reduction of measure life to two years for non-IQ 5 years for IQ programs.	Reduction in lifetime savings.

Market	End Use	Measure Name	Summary of Impactful Changes	Potential Impact
			Note this remains an active conversation and final characterization may differ.	

In addition, the following new measures are being proposed for inclusion for the first time in v11:

Market	End Use	Measure
Commercial	Food Service	Automatic Conveyor Broiler
Commercial	HVAC	Commercial Duct Sealing
Commercial	HVAC	Condensate Recovery System
Commercial	HVAC	Steam Trap Monitoring System
Commercial	HVAC	Ductless Heat Pump
Commercial	HVAC	PROVISIONAL Variable Refrigerant Flow HVAC System
Commercial	HVAC	Chiller Condenser Water Temperature Reset
Commercial	HVAC	Cooling Tower Water Side Economizer
Commercial	Miscellaneous	C&I Air Sealing
Commercial	Miscellaneous	High Speed Overhead Doors
Commercial	Miscellaneous	Dock Door Seals and Shelter
Commercial	Miscellaneous	Commercial Wall Insulation
Residential	Appliance	Residential Induction Cooktop
Residential	Appliance	Residential Bolt-On Smart Dryer Sensor
Residential	HVAC	Air Handler Filter Cleaning/Replacement
Residential	HVAC (?)	Tree Planting – (planned but not yet in draft)
Residential	Hot Water	Recirculating Pump Controls
Residential	Shell	Insulated Cellular Shades
Residential	Shell	Multifamily Whole Building Aerosol Sealing
Cross Cutting	Purchasing Tools	Efficient Choice Tool