
MEMORANDUM

TO: IL TRM TECHNICAL ADVISORY COMMITTEE

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

SUBJECT: IL TRM VERSION 15.0 FINAL - SUMMARY

DATE: 09/18/2026

Cc: CELIA JOHNSON, SAG

VEIC has submitted the Final version 15.0 Illinois TRM to the Technical Advisory Committee and uploaded to SharePoint. This includes both redline changes to existing measures and new measures (also in redline) included for the first time in this version. Changes from Almost Final draft are highlighted in red in the tables below.

- IL-TRM_Effective_010127_v15.0_Vol_1_Overview_09182026_FINAL
- IL-TRM_Effective_010127_v15.0_Vol_2_C_and_I_09182026_FINAL
- IL-TRM_Effective_010127_v15.0_Vol_3_Res_09182026_FINAL
- IL-TRM_Effective_010127_v15.0_Vol_4_X-Cutting_Measures_and_Attach_09182026_FINAL

VEIC has also provided on SharePoint:

- A Final errata memo documenting approved changes to Version 14.0, effective 1/1/2026.

Presented below are two summary tables. The first provides the measures that have been edited or added, with a brief description of what has changed, whether it is considered an errata, and a link to the corresponding SharePoint Tracker Item(s). The second table provides a list of those tracker items that have not resulted in a change.

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
Volume 1 – Overview and User Guide				
1.1	Acknowledgements	N	Addition of new members of the TAC stakeholder group.	N/A
3.5	Provisional Measure Savings Assumptions	Y	Clarifications that the 1% relates to verified portfolio net annual (electric or gas) savings and that the retroactive adjustment is determined by the final evaluator reports.	N/A
		N	Annual savings updated to lifetime savings (following end of CPAS)	N/A
3.6	Glossary	N	Updates to multiple building type definitions and addition of ‘Hospital – Unknown’, ‘Manufacturing Facility_Miscellaneous’, ‘Manufacturing Facility_Food/Chemical’, ‘Medical Office’, ‘Warehouse – Nonrefrigerated’ and ‘Warehouse – Refrigerated’.	N/A
Volume 2 – Commercial and Industrial Measures				
4.1.1	Engine Block Timer for Agricultural Equipment	N	Measure moved to Miscellaneous End Use as additional non-agriculture scenarios added.	Engine Block Heater Controls
4.1.11	Commercial LED Grow Lights	N	Addition of IECC 2024 code requirements.	Apply Illinois Energy Conservation Code (based on IECC 2024)
4.1.13	Irrigation Pump VFD	N	Reliability Review. Measure cost update.	N/A
4.1.14	High Efficiency Grain Dryer	Y	Changed how algorithm accounts for grain moisture removal. Fix to unit issue in algorithm causing significant error in savings.	N/A
4.1.15	Grain Dryer Tune-Up	N	Reliability Review. Measure cost update. Changed how algorithm accounts for grain moisture removal. Updated some default assumptions.	N/A
4.1.19	ENERGY STAR Dairy Water Heater	N	Addition of IECC 2024 code requirements.	Apply Illinois Energy Conservation Code (based on IECC 2024)
4.2.5	ENERGY STAR Convection Oven	N	Updated default assumptions per newer ENERGY STAR Calculator. Fix of table column label to IdleBaseTime. Example calculations updated.	Food Service - Electric Oven Preheat Rate - 4.2.5
4.2.6	ENERGY STAR Dishwasher	Y	Fixing IdleEnergy algorithm hour to minutes.	N/A

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
4.2.8	ENERGY STAR Griddle	N	Updated algorithm assumptions and guidance around double-sided dual fuel griddles. Removed ENERGY STAR language. Gas efficiency updated to be consistent with ENERGY STAR spec. Clarification to calculations headings. Examples recalculated.	Update C&I Measure Griddles - Double Sided
4.2.10	Ice Maker	N	Reliability Review. Measure cost update.	N/A
4.2.11	High Efficiency Pre-Rinse Spray Valve	N	Addition of IECC 2024 code requirements.	Apply Illinois Energy Conservation Code (based on IECC 2024)
4.2.13	Rotisserie	N	Reliability Review. Measure cost update.	N/A
4.2.16	Kitchen Demand Ventilation Controls	N	Addition of IECC 2024 code requirements.	Apply Illinois Energy Conservation Code (based on IECC 2024)
4.2.26	Hot Food Holding Bins	N	New measure	New C&I Measure Hot Food Holding Bins
4.3.1	Water Heater	N	Addition of IECC 2024 code requirements. Addition of language for water heaters >1,000,000 BTUh. Update to Federal Standards. Added language to continue using pre 10/2026 standards until 1/1/2028. Update to measure life and measure costs.	Apply Illinois Energy Conservation Code (based on IECC 2024) Commercial water heater question regarding IECC 2004 code Commercial Water Heater Federal Standard update
4.3.4	Commercial Pool Covers	N	Addition of IECC 2024 code requirements.	Apply Illinois Energy Conservation Code (based on IECC 2024)
4.3.7	Multifamily Central Domestic Hot Water Plants	N	Addition of IECC 2024 code requirements.	Apply Illinois Energy Conservation Code (based on IECC 2024)
4.3.8	Controls for Central Domestic Hot Water	N	Reliability Review. No updates recommended.	N/A
4.3.9	Heat Recovery Grease Trap Filter	N	Reliability Review. No updates recommended.	N/A
4.3.14	Solar Water Heater	N	New Measure Clarification in HotWaterUse calculation based on square footage that it is the area served by the solar water heater.	Solar Water Heating - C&I
4.3.15	ECM Circulation Pumps for Domestic Hot Water	N	New Measure	New Measure for ECM Circulator Pumps for DHW

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
4.4	HVAC End Use	N	Updates to Equivalent Full Load Hours (EFLHs) for Existing Buildings based on new commercial modelling. New Construction EFLH assumptions have been added.	Review climate data and assumptions
4.4.2	Space Heating Boiler Tune-Up	N	Reliability Review. Measure cost update.	N/A
4.4.5	Condensing Unit Heaters	N	Reliability Review. Measure cost update. Measure life update. Addition of IECC 2024 code requirements.	N/A Apply Illinois Energy Conservation Code (based on IECC 2024)
4.4.6	Electric Chiller	N	Addition of IECC 2024 code requirements.	Apply Illinois Energy Conservation Code (based on IECC 2024)
4.4.7	ENERGY STAR Room Air Conditioner	N	Federal Standard update. Update to ENERGY STAR version 7. After discussion at the TAC, decision to remove the ENERGY STAR criteria (current level is often lower than the new baseline, and v7 is draft) – so programs will need to self certify what products are eligible. ENERGY STAR therefore removed from measure. Removal of CEE Tier 2. VEIC are working on a source of an updated measure cost assumption in light of the significant Federal Standard update. In light of undefined program defined efficiency standard, we suggest leaving default costs as they are.	ENERGY STAR Update for Room/Window AC
4.4.9	Air and Water Source Heat Pump System	N	Addition of IECC 2024 code requirements. Note, the reorganization of the heat pump measures that is being performed in the Residential measure, will likely be applied to this measure once final format is agreed.	Apply Illinois Energy Conservation Code (based on IECC 2024) N/A
4.4.10	High Efficiency Boiler	N	Reliability Review. Addition of IECC 2024 code requirements.	Apply Illinois Energy Conservation Code (based on IECC 2024)
4.4.11	High Efficiency Furnace	N	Reliability Review. ENERGY STAR criteria update. Review deadline set to apply new federal standard due in 2028. Maximum cost for repairs for early replacement changed to 20% of new	N/A

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
			baseline cost rather than providing actual values. Measure life updated to 23 years based on EIA/Guidehouse/Leidos study. EFLHs and Coincidence Factors updated base on new models.	
4.4.12	Infrared Heaters (all sizes), Low Intensity	N	Reliability Review. Minor text edits.	N/A
4.4.13	Package Terminal Air Conditioner (PTAC) and Package Terminal Heat Pump (PTHP)	N	Addition of IECC 2024 code requirements.	Apply Illinois Energy Conservation Code (based on IECC 2024)
4.4.14	Pipe Insulation	N	Reliability Review. Addition of IECC 2024 code requirements. Note we are continuing to review this measure and hope to update default assumptions utilizing the new EFLH from the commercial models. VEIC will work with Nicor/GTI to update the assumptions for v16.	Apply Illinois Energy Conservation Code (based on IECC 2024)
4.4.15	Single-Package and Split System Unitary Air Conditioners	N	Addition of IECC 2024 code requirements. Table C403.3.2(1) added in place of table C403.3.2(2) which refers to heat pumps. The TAC discussed the observation that IECC 2024 does not provide EER minimums and it was indicated that many manufacturers are achieving very high SEER but with low EERs. If demand savings are important to the programs, it may be appropriate to continue to use the IECC 2001 EER requirements, or develop new baselines. We will continue this discussion in the next phase. Final decision to use IECC 2021 for EER values – now reflected in the measure.	Apply Illinois Energy Conservation Code (based on IECC 2024)
4.4.16	Steam Trap Replacement or Repair	N	Additional Heat of Vaporization (Hv) table to calculate at specific steam pressure.	Modify Steam Trap Calc for Hv Input
4.4.17	Variable Speed Drives for HVAC Pumps and Cooling Tower Fans	N	Addition of IECC 2024 code requirements. Heating and Cooling Run hours updated to reflect new commercial modeling outputs. Updated ESF and DSF added.	Apply Illinois Energy Conservation Code (based on IECC 2024) Review climate data and assumptions
4.4.19	Demand Controlled Ventilation	N	Reliability Review. Minor text edits. Update to ASHRAE standard.	N/A

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
4.4.20	High Turndown Burner for Space Heating Boilers	N	Addition of IECC 2024 code requirements.	Apply Illinois Energy Conservation Code (based on IECC 2024)
4.4.24	Small Pipe Insulation	N	Reliability Review. Measure cost update. Measure cost section improved to show material cost and labor cost averaged across 5 climate zones. Addition of missing reference. Default savings assumptions updated based on EFLH outputs from the new building energy models, and new building types added.	N/A
4.4.26	Variable Speed Drives for HVAC Supply and Return Fans	N	Addition of IECC 2024 code requirements. Total Fan Run hours updated to reflect new commercial modeling outputs.	Apply Illinois Energy Conservation Code (based on IECC 2024) Review climate data and assumptions
4.4.27	Energy Recovery Ventilator	N	Addition of IECC 2024 code requirements.	Apply Illinois Energy Conservation Code (based on IECC 2024)
4.4.30	Notched V Belts for HVAC Systems	Y	Reverting Total Fan Run hour table in algorithm section to prior version as agreed by TAC late in 2025.	N/A
		N	Reliability Review. Minor text edits. Total Fan Run hours updated (again) to reflect new commercial modeling outputs.	Review climate data and assumptions
4.4.33	Commercial & Industrial Air Curtain	N	Reliability Review. Minor text edits. Addition of IECC 2024 code requirements.	N/A Apply Illinois Energy Conservation Code (based on IECC 2024)
4.4.34	Destratification Fan	N	Addition of IECC 2024 code requirements.	Apply Illinois Energy Conservation Code (based on IECC 2024)
4.4.37	Unitary HVAC Condensing Furnace	N	Reliability Review. Minor text edits.	N/A
4.4.40	Gas High Efficiency Single Package Vertical Air Conditioner	N	Reliability Review. Minor text edits.	N/A
4.4.41	Advanced Rooftop Controls (ARC)	N	Reliability Review. Measure cost update. Minor text edits.	N/A
4.4.44	Commercial Ground Source and Ground Water Source Heat Pump	N	Addition of IECC 2024 code requirements.	Apply Illinois Energy Conservation Code (based on IECC 2024)

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
4.4.45	Adsorbent Air Cleaning	N	Reliability Review. Minor text edits. Update to existing gas heat efficiency to be consistent with changes made in v14.	N/A
4.4.51	Advanced Rooftop Controls with High Rotor Pole Switch Reluctance Motors	N	Addition of IECC 2024 code requirements. Total Fan Run hours updated to reflect new commercial modeling outputs.	Apply Illinois Energy Conservation Code (based on IECC 2024) Review climate data and assumptions
4.4.53	HVAC Supply, Return and Exhaust Fans – Fan Energy Index	N	Addition of IECC 2024 code requirements. Total Fan Run hours updated to reflect new commercial modeling outputs.	Apply Illinois Energy Conservation Code (based on IECC 2024) Review climate data and assumptions
4.4.54	Process Heating Boiler	N	Addition of IECC 2024 code requirements.	Apply Illinois Energy Conservation Code (based on IECC 2024)
4.4.55	Commercial Gas Heat Pump	N	Reliability Review. Addition of IECC 2024 code requirements.	Apply Illinois Energy Conservation Code (based on IECC 2024)
4.4.56	Commercial Duct Sealing	N	Addition of footnote on Fe variable	N/A
4.4.60	Variable Refrigerant Flow HVAC System	Y	Apply errata, previously approved for v14: Energy saving algorithm for units >65 kBtu/hr should use IEER rather than EER.	N/A
		N	Addition of IECC 2024 code requirements.	Apply Illinois Energy Conservation Code (based on IECC 2024)
4.4.62	Cooling Tower Water Side Economizer	Y	Addition of 25% load factor to reduce full load ton hours.	Overly aggressive tonnage assumption in WSE measure
4.4.69	Waterless HVAC Condensate Trap	N	Total Fan Run hours updated to reflect new commercial modeling outputs.	Review climate data and assumptions
4.4.70	Indoor Air Purification	N	New measure	New C&I Measure - Indoor Air Purification
4.4.71	Electric Chiller Tune-Up	N	New measure Unit (kW) of Summer Coincident Peak Demand Savings fixed.	New Measure for Chiller Tune-up
4.4.72	ENERGY STAR Ceiling Fan	N	New measure	ENERGY STAR Ceiling Fan - C&I
4.4.73	Pressure Independent VAV Controller for Fume Hood Fan Systems	N	New measure Average EFLH clarified. Measure cost updated with inflation. Exponent updated in fan kWh algorithm. Clarified use of gas heating efficiency assumptions.	New C&I Measure Pressure Independent VAV Controller for Fume Hood Fan Systems
4.4.74	Building Automation System for Public Schools	N	New measure Clarification that default hours applies to both unit ventilators and air handlers.	New Measure for building automation systems for public schools

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
			Example calculation clarified.	
4.4.75	Dedicated Outdoor Air System (DOAS)	N	New measure Measure life changed from 15 to 20 years. Discussion on Heating Savings – ultimately removed due to inconsistencies between performance conditions between manufacturers.	New Measure for Dedicated Outdoor Air Systems (DOAS)
4.4.76	Air to Water Heat Pump	N	New measure New Construction baseline clarified to assume same fuel unless evaluation provides basis for a mixed baseline.	Air to Water Heat Pump - C&I
4.4	Lighting End Use	N	Updates to modeling assumptions – Hours, coincidence factors and waste heat factors.	Review climate data and assumptions
4.5.4	LED Bulbs and Fixtures	N	New DLC 6.0 specification increases average LED efficacy by 14% so this has been applied to appropriate efficient watts. A comprehensive, fixture type specific review will be performed for v16 when more products have been rated at this level. Updated default exterior hours in table to 70,000 hours to be consistent with default lifetimes added in previous update. Discussions are ongoing on any appropriate adjustments to baselines stemming from the Clean Lighting Act. Non-consensus memo has been drafted and provided for review with Draft 2.	DLC update v6.0 specification Update Measure Life for Commercial Lighting Review Clean Lighting Act - HB2363
4.5.6	LED Traffic and Pedestrian Signals	N	Reliability Review. Measure retired.	N/A
4.5.7	Lighting Power Density	N	Addition of IECC 2024 code requirements. Additional code tables added.	Apply Illinois Energy Conservation Code (based on IECC 2024)
4.5.9	Multi-Level Lighting Switch	N	Addition of IECC 2024 code requirements.	Apply Illinois Energy Conservation Code (based on IECC 2024)
4.5.13	Occupancy Controlled Bi-Level Lighting Fixtures	N	Addition of IECC 2024 code requirements.	Apply Illinois Energy Conservation Code (based on IECC 2024)
4.6.1	Automatic Door Closer for Walk-In Coolers and Freezers	N	Updates to savings to reflect most recent version of sourced reference.	Revise Auto Door Closer for most recent CA eTRM measure
4.6.3	Door Heater Controls for Cooler or Freezer	N	Reliability Review. No updates recommended.	N/A

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
4.6.4	Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers / Freezers	N	Reliability Review. No updates recommended.	N/A
4.6.7	Strip Curtain for Walk-in Coolers and Freezers	N	Reliability Review. No updates recommended.	N/A
4.6.13	Add Doors to Open Refrigerated Display Cases	Y	Terms relating to night covers and additional lights fixed to be multiplied by case length. Units clarified for unit conversions.	4.6.13 Add Doors to Open Refrigerated Display Cases - formula edits
4.6.15	Zero Energy Doors for Refrigerated Cases	N	Reliability Review. Minor text edits. Update to coincidence factor.	N/A
4.6.16	Door Gaskets for Walk-in and Reach-in Coolers and Freezers	N	Reliability Review. Measure cost updated. Default savings updated based on latest version of sourced reference.	N/A
4.6.17	Refrigeration Tune-up	N	New measure	Remote and Self-contained Refrigeration Tune Up
4.7.1	VSD Air Compressor	N	Reliability Review. Measure cost updated.	N/A
4.7.2	Compressed Air Low Pressure Drop Filters	N	Reliability Review. No updates recommended.	N/A
4.7.4	Efficient Compressed Air Nozzles	N	Reliability Review. No updates recommended.	N/A
4.7.8	Desiccant Dryer Dew Point Demand Control	N	Reliability Review. No updates recommended.	N/A
4.7.9	Compressed Air Heat Recovery	N	Reliability Review. No updates recommended.	N/A
4.7.10	Compressed Air Storage Receiver Tank	N	Reliability Review. No updates recommended.	N/A
4.7.11	Reduce Compressed Air Setpoint	N	Reliability Review. No updates recommended.	N/A
4.7.13	Compressed Air Leak Repair	N	Measure life update. After TAC discussion – measure life for non-filter leak repairs updated to 6.5 years. Algorithm clarification. TotalCFM calculation updated.	Lifetime and miscellaneous updates for Compressed Air Leak Repair

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
			Example added for ultrasonic detection.	
4.7.14	Compressed Air Tool Replacement	N	New measure	Compressed Air - Tool Replacement
4.8.1	Roof Insulation for C&I Facilities	N	Addition of IECC 2024 code requirements. Measure cost update. Costs updated to reflect average labor rate across 5 climate zones. Blown Cellulose cost defaults added. Gas heating system efficiency assumptions updated.	Apply Illinois Energy Conservation Code (based on IECC 2024)
4.8.2	Spring-Loaded Garage Door Hinge	Y	Errors in calculation spreadsheet: Three Existing Building electric savings values were using incorrect hour assumptions and delta T was not adjusted by location.	N/A
		N	Savings assumptions updated using new building modelling EFLH outputs and new building types added. Gas heating system efficiency assumptions updated.	N/A
4.8.3	Commercial Weather Stripping	N	Reliability Review. Measure cost update. Minor text edits.	N/A
4.8.4	C&I Air Sealing	N	Reliability Review. Measure cost update. Minor text edits. Gas heating system efficiency assumptions updated.	N/A
4.8.5	High Speed Overhead Doors	N	Addition of IECC 2024 code requirements. Gas heating system efficiency assumptions updated.	Apply Illinois Energy Conservation Code (based on IECC 2024)
4.8.6	Dock Door Seals and Shelter	N	Addition of IECC 2024 code requirements. Gas heating system efficiency assumptions updated.	Apply Illinois Energy Conservation Code (based on IECC 2024)
4.8.7	Commercial Wall Insulation	N	Reliability Review. Measure cost update. Costs updated to reflect average labor rate across 5 climate zones. Extruded Polystyrene Board cost defaults added. Minor text edits. Gas heating system efficiency assumptions updated.	N/A
4.8.8	Commercial Secondary Windows	N	Adjustment to efficient equipment scenario to be inclusive of any correctly installed secondary window. Measure description updated to be less restrictive. Algorithms and variables reworked so that savings calculated rather than based on	Update savings for C/I Secondary Windows

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
			modeling. Removed extra kBtu conversion factor. Ubase assumptions updated to align with 4.8.9 Efficient Windows. Fixed electric heating efficiency error. Gas heating system efficiency assumptions updated.	
4.8.9	Efficient Windows	N	Addition of IECC 2024 code requirements. Single pane U-value added to baseline table. Gas heating system efficiency assumptions updated.	Apply Illinois Energy Conservation Code (based on IECC 2024)
4.9.1	Pump Optimization	N	Reliability Review. No updates recommended.	N/A
4.9.2	Computer Power Management Software	N	Measure Retired	N/A
4.9.3	Modulating Commercial Gas Clothes Dryer	N	Reliability Review. Measure cost update.	N/A
4.9.9	Commercial Clothes Dryer Moisture Sensor	N	Reliability Review. No updates recommended.	N/A
4.9.10	Efficient Thermal Oxidizers	Y	Reliability Review. Fixing issue with formula to calculate energy for heating oxidizer combustion air. Changed to compare ambient temp with combustion chamber temperature.	Error in equation within Thermal Oxidizer measure
4.9.11	Variable Speed Drives for Process Fans	N	Addition of IECC 2024 code requirements.	Apply Illinois Energy Conservation Code (based on IECC 2024)
4.9.19	Smart Sockets	N	Addition of factors to allow different number of receptacles. Receptacle factor assumption updated. Parenthesis issue fixed to apply new factors to weekly demand. Example calculation added. Updates to controlled equipment standby power assumptions. Update to efficient standby power assumption	Smart Socket updates
4.9.26	Engine Block Timer	N	New measure (copied and expanded from the Agriculture measure)	Engine Block Heater Controls
A1	Appendix 1: Key Commercial OpenStudio Building Model Assumptions	N	New table providing key attributes of OpenStudio building models to assist with selecting best fitting model.	Review climate data and assumptions

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
Volume 3 – Residential Measures				
5.1.1	ENERGY STAR Air Purifier/Cleaner	N	Measure life update.	Update Lifetime for Air Purifiers
5.1.2	ENERGY STAR Clothes Washer	N	ENERGY STAR most efficient update. Capacity and IMEFbase assumptions updated to reflect top v front loading weighting from ComEd program. Footnote updated for IMEFbase to clarify non-qualifying units sold used in weighting. Split of consumption updated to reflect latest DOE LLC analysis.	Clothes Washer Weighted Average IMEF Deemed Values Reweighting
5.1.3	ENERGY STAR Dehumidifier	N	Typo fixes.	N/A
5.1.4	ENERGY STAR Dishwasher	N	Federal Standard does not go in to effect until April 2027. Footnote added to forewarn change next year.	Federal Standard update for Residential dishwashers
5.1.5	ENERGY STAR Freezer	N	Reliability Review. Measure life update. Measure cost update. Update to deemed savings with latest ENERGY STAR QPL.	Refrigerators - New DOE TSD available
5.1.6	ENERGY STAR, CEE Tier 2 or CEE Tier 3 Refrigerator	N	Reliability Review. Measure life update. Measure cost update. Update to deemed savings with latest ENERGY STAR QPL.	Refrigerators - New DOE TSD available
5.1.7	ENERGY STAR and CEE Tier 2 Room Air Conditioner	N	Federal Standard update. Docket number/federal standard section added. Update to ENERGY STAR version 7. After discussion at the TAC, decision to remove the ENERGY STAR criteria (current level is often lower than the new baseline, and v7 is draft) – so programs will need to self certify what products are eligible. ENERGY STAR therefore removed from measure. Additional ENERGY STAR mentions removed. Removal of CEE Tier 2. Update to reference of newly named measure 5.3.24 for Portable HP assumptions. VEIC are working on a source of an updated measure cost assumption in light of the significant Federal Standard update. In light of undefined program defined efficiency	ENERGY STAR Update for Room/Window AC

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			standard, we suggest leaving default costs as they are.	
5.1.10	ENERGY STAR Clothes Dryer	N	Fuel switch algorithm reorganized to split out fuel impacts.	Res Heat Pump Clothes Dryer - 5.1.10 - CE clarification
5.1.17	ENERGY STAR All-in-One Clothes Washer-Dryer	Y	Removal of IQadj in efficient consumption algorithm. Clarification of kW calculation. Added CW fuel switch scenario. Distinguished between IQadj for clothes washer and clothes dryer. Added IQadjCW to kWh algorithm in cost effectiveness section.	All in one Washer Dryer - Potential Errors
5.1.18	Residential Refrigerator Seal Replacement	N	Reliability Review. No updates recommended.	N/A
5.2.1	Advanced Power Strip – Tier 1	N	Correction of multifamily kit kWh and kW default values using updated ISR.	N/A
5.2.4	Smart Sockets	N	Addition of factors to allow different number of receptacles. Receptacle factor assumption updated. Footnote updated. Updates to controlled equipment standby power assumptions. Baseline table expanded to reflect more possible appliances. Update to efficient standby power assumption Example calculations added.	Smart Socket updates
5.3.1	Whole Home Centrally-Ducted Air Source Heat Pump (Central, Ductless and Portable)	N	This measure has been split into two. This measure now represents only systems that provide conditioning for the whole home. A second new measure is limited to supplemental and portable heat pumps. Addition of language for use of an Excel tool developed by GTI/Nicor which can be used to calculate savings. Maximum cost for repairs for early replacement changed to 20% of new baseline cost rather than providing actual values. Measure lives updated. RUL of furnace updated to 8 years for IQ and 9 years for non-IQ and replacement cost updated based on 8/9 years of inflation. Baseline measure costs updated due to number of years inflation applied.	ASHP/DHPS - Separate to Individual Measures 5.3.1 Residential Hybrid Heating System Modelling Tool N/A Update of Lifetimes for Residential HVAC measures

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
			Use of Room AC as a baseline expanded to all IQ homes (not just mobile homes). RUL of electric resistance heat made consistent with full measure life. Clarifications of IQ v non-IQ baselines. Algorithm labels updated to “(Central AC)” for the first and “(Room AC applicable for mobile homes or IQ only)” for the second. Addition of Summer Coincident Peak Demand Savings calculation for when Room AC is used as the baseline. Clarification added that efficiency derating for age of equipment should not apply to electric resistance.	
5.3.2	Boiler Pipe Insulation	N	Reliability Review. Measure cost updated.	N/A
5.3.3	Central Air Conditioning	N	Reliability Review. Maximum cost for repairs for early replacement changed to 20% of new baseline cost rather than providing actual values. Measure lives updated. Baseline measure costs updated due to number of years inflation applied. Use of Room AC as a baseline expanded to all IQ homes (not just mobile homes). Example calculations updated. Algorithm labels updated to “(Central AC)” for the first and “(Room AC applicable for mobile homes or IQ only)” for the second.	N/A Update of Lifetimes for Residential HVAC measures
5.3.4	Duct Insulation and Sealing	Y	Gas Equivalent Full Load Hours (EFLHs) were incorrectly the same as the electric EFLHs. Fixed to be consistent with other gas measures.	N/A
		N	Addition of mobile home default assumptions. Addition of assumptions finding % of fossil heat and electric heat that is assumed to be a furnace for fan savings. Removal of systems without ducts. Removal of Thermal Regain Factor for cooling. Thermal Regain Factor for heating updated based on duct location. %Cool updated to be consistent with other measures.	Evaluation and changes to inputs for Section 5.3.4 Methodology 3 N/A Thermal Regain Factors in Duct Insulation and Sealing measure N/A

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
5.3.5	Furnace Blower Motor	N	Clarification of heating savings per cooling capacity.	N/A
5.3.6	Gas High Efficiency Boiler	N	Maximum cost for repairs for early replacement changed to 20% of new baseline cost rather than providing actual values.	N/A
5.3.7	Gas High Efficiency Furnace	N	Maximum cost for repairs for early replacement changed to 20% of new baseline cost rather than providing actual values. ENERGY STAR criteria update. Review deadline set to apply new federal standard due in 2028. Measure life updated. Upon review and discussion, decision to revert back to the existing 20 year measure life assumption. Upon further review, measure life is now updated to 22.5 for non-IQ homes and 26 for IQ homes. RUL of existing furnace updated to 8 years for IQ and 9 years for non-IQ and replacement cost updated based on 8/9 years of inflation. Baseline measure costs updated due to number of years inflation applied.	N/A ENERGY STAR furnace specification update (and federal standard coming) Update of Lifetimes for Residential HVAC measures
5.3.8	Ground Source Heat Pump	N	Reliability Review. Maximum cost for repairs for early replacement changed to 20% of new baseline cost rather than providing actual values. Baseline measure life updated. RUL of furnace updated to 8 years for IQ and 9 years for non-IQ and replacement cost updated based on 8/9 years of inflation. RUL of electric resistance heat made consistent with full measure life. Measure cost updated. Addition of Room AC as possible cooling baseline (IQ only). Clarification added that efficiency derating for age of equipment should not apply to electric resistance.	N/A Update of Lifetimes for Residential HVAC measures N/A
5.3.9	High Efficiency Bathroom Exhaust or Radon Mitigation Fan	N	ENERGY STAR Most Efficient specification updated. ENERGY STAR (In-line tested with filter) specification added. Specifications clarified.	Bath fan ENERGY STAR Most Efficient criteria update 2025

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
5.3.11	Programmable Thermostats	N	Addition of assumptions finding % of fossil heat and electric heat that is assumed to be a furnace for fan savings.	N/A
5.3.14	Boiler Reset Controls	N	Reliability Review. Minor text edits. Boiler load assumptions updated to represent load not consumption.	N/A
5.3.16	Advanced Thermostats	N	Addition of assumptions finding % of fossil heat and electric heat that is assumed to be a furnace for fan savings.	N/A
5.3.17	Gas High Efficiency Combination Boiler	N	Addition of Early Replacement assumptions.	Res Combi Boiler 5.3.17
5.3.20	Residential Energy Recovery Ventilator (ERV)	N	Clarification added that efficiency derating for age of equipment should not apply to electric resistance.	N
5.3.23	Residential Gas Heat Pump	N	Remaining Useful life of different HVAC equipment made consistent with other measures. RUL of furnace updated to 8 years for IQ and 9 years for non-IQ and replacement cost updated based on 8/9 years of inflation.	N/A
5.3.24	Supplemental Air Source Heat Pump (Ductless, Portable)	N	New measure (split out from 5.3.1) Applicability clarified in additional language. Clarification that if system configuration is unknown, any ductless units <18kBtu may be considered supplemental. Removal of partial v full displacement text in footnote. Use of Room AC as a baseline expanded to all IQ homes (not just mobile homes). RUL of electric resistance heat made consistent with full measure life. Addition of Summer Coincident Peak Demand Savings calculation for when Room AC is used as the baseline. Clarification added that efficiency derating for age of equipment should not apply to electric resistance.	ASHP/DHPS - Separate to Individual Measures
5.3.25	Air to Water Heat Pump	N	New measure New Construction baseline clarified to assume same fuel unless evaluation provides basis for a mixed baseline. Measure life assumptions updated. RUL of electric resistance heat made consistent with full measure life.	Air to Water Heat Pump - RES

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
			Example calculations added. Clarification added that efficiency derating for age of equipment should not apply to electric resistance.	
5.4.2	Gas Water Heater	N	Reliability Review. Minor text edits.	N/A
5.4.14	Residential Solar Water Heater	N	Updated savings algorithms to separate TOS/NC from RF savings and add fossil fuel baseline. Measure life update.	Solar Water Heating - RES
5.5.15	IQ Integrated Porchlight with Motion Sensor - Provisional	N	New measure	N/A
5.5.16	Residential Lighting Controls - Provisional	N	New measure	N/A
5.6.1	Air Sealing	N	Addition of Room AC cover in Rx savings. Updates to Rx measure life assumptions. Measure life assumptions have been updated. Following TAC negotiation, measure life assumptions updated again – 20 years for all measures except window film (1 year), Room AC cover (3 years) and Door sweeps (5 years). Addition of assumptions finding % of fossil heat and electric heat that is assumed to be a furnace for fan savings. Rx kWh assumptions have been updated based on 2001 ASHRAE fundamentals assumptions of Effective Leakage Rates, converted to CFM50 and then using the custom calculation. The Adjustment factor has been removed. Following additional review and adjustment to the analysis – final Rx savings have been updated. In addition, v14 values for caulking/other sealing products added back in for use only with professional air sealing programs that are unable to do blower door testing. Addition of Retail In Service Rate assumptions. ISR assumptions have been updated. ISR for Room AC updated to 0.95 and Weatherstripping and gaskets to 0.85. Associated footnotes updated.	Room AC Cover Residential Air Sealing (measure 5.6.1) Lower both annual energy savings and assumed measure lives for prescriptive air sealing measures such as outlet gaskets, doors weeps, weatherstripping rolls and cans of spray foam. N/A Air Leakage Sealing - Update to ISRs for Caulking and Spray Foam

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
			Proposed removal of the Spray Foam provisional status (following incorporation of the ISR evaluation). Clarifying text added to this measure and 4.4.48 to indicate appropriate use of the AC covers assumptions. Gas efficiency assumption, when unknown, made consistent with other shell measures. Clarification added that efficiency derating for age of equipment should not apply to electric resistance.	
5.6.2	Basement Sidewall Insulation	N	Addition of assumptions finding % of fossil heat and electric heat that is assumed to be a furnace for fan savings. Clarification added that efficiency derating for age of equipment should not apply to electric resistance.	N/A
5.6.3	Floor Insulation Above Crawlspace			
5.6.4	Wall Insulation			
5.6.5	Ceiling/Attic Insulation			
5.6.6	Rim/Band Joist Insulation			
5.6.7	Low-E Storm Window			
5.6.9	Insulated Cellular Shades			
5.6.11	Insulated Concrete Forms			
5.6.12	Energy Efficient Doors			
5.6.3	Floor Insulation Above Crawlspace	N	Fixing example calculations	N/A
5.6.5	Ceiling/Attic Insulation	N	Measure life update. %furnancefossil added to example calculation.	Update Measure Life for Residential Ceiling/Attic Insulation
5.6.8	High Performance Windows	N	Addition of IECC 2024 code requirements. Note – modeling outputs for IECC 2024 code requirements have been requested and should be ready for Draft 2. This update has been delayed but we hope will be ready for review in the next phase. Default assumptions for NC (IECC 2024) now added.	Apply Illinois Energy Conservation Code (based on IECC 2024)
5.6.11	Insulated Concrete Forms	N	Addition of IECC 2024 code requirements.	Apply Illinois Energy Conservation Code (based on IECC 2024)
5.6.12	Energy Efficient Doors	N	Addition of IECC 2024 code requirements.	Apply Illinois Energy Conservation Code (based on IECC 2024)

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
5.7.1	High Efficiency Pool Pumps	N	Reliability Review. Update to changes based on updated ENERGY STAR QPL. Deemed kWh and kW savings recalculated.	N/A
5.7.4	Heat Pump Swimming Pool Heater	Y	Adjustments to fuel switch algorithms to reflect actual electric added and gas replaced.	N/A
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6.1.1	Adjustments to Behavior Savings to Account for Persistence	N	Clarification of percentage of load in summer months.	Add a footnote to the HER section that explains when to add peak and non-peak loadshapes.
6.2.1	Voltage Optimization	Y	Update to reflect the ICC's approval of the Ameren Illinois Multi-Year Integrated Grid Plan (MYIGP) and the new baseline energy use period of 2019-2021.	N/A
		N	Interested parties will discuss the potential change to the measure life assumption in light of the passage of CRGA. Final decision to assume 30 year measure life for 2027. Language updated in measure life and O&M sections accordingly.	N/A

The following table provides a list of those tracker items still pending with progress made to date and those requests that have not resulted in a change.

Tracker Items:	Comments
Review climate data and assumptions	Commercial Modeling Working Group have finalized building energy model attributes. Updates to model definitions have been made and a new Appendix added to Volume 2. Draft 1 provides lighting, HVAC EFLH (Existing building) and fan hour assumptions. Draft 2 provides New Construction EFLH and ESF/DSF assumptions.
Building Type Clarification for Lighting Hours	All modeling derived assumption tables have been made consistent.
Keep track of ENERGY STAR specification changes	VEIC and the TAC continue to monitor potential changes to ENERGY STAR and Federal Standards.
Combined Heat and Power	No updates this year.
Update Measure Life for Commercial Gas Heat Pumps	VEIC and Guidehouse review determined there is not sufficient support for a measure lifetime update.
New C&I Measure Commercial Hybrid RTU	VEIC will continue to work with GTI Energy and Nicor Gas on this measure and hope to have it included in draft 2. This new measure has been placed on hold and will potentially become a v16 addition.
Update commercial domestic hot water consumption estimates	VEIC provided Peoples Gas and North Shore Gas with the referenced source of the assumptions. If there are any recommendations for changes these will be made in v16.

Tracker Items:	Comments
Update Measure Life for LED Exit Signs	VEIC disagree with increasing the measure life. This is early replacement only so lifetime represents the remaining life of the existing incandescent (unlikely) or CFL. At 8760 hours, even 6 years seems high.
Update lifetime for C&I Roof Insulation	Upon review by Guidehouse, decision that there is not sufficient support for a measure lifetime update.
Update Lifetime for C&I Wall Insulation	Upon review by Guidehouse, decision that there is not sufficient support for a measure lifetime update.
Update lifetime for C/I Efficient Windows	Upon review by Guidehouse, decision that there is not sufficient support for a measure lifetime update.
Clerical correction - 4.9.15 ENERGY STAR Low Wattage Uninterruptible Power Supply	No error here. Clarification provided over email.
ENERGY STAR Clothes Dryer	ENERGY STAR specification is still under development. No changes applied.
Remove "Provisional" designation for thermostatic radiator valves	VEIC do not believe that there is sufficient support for changing the designation. The TAC should avoid relying on other TRM's decisions as a basis. Ideally an IL based evaluation would be performed to help improve the robustness of the measure. Further, as described at a TAC call (05/20) the load values in this measure are correct – measure 5.3.9 was incorrectly using consumption assumptions rather than load and are being corrected.
Furnace Blower Motor Savings Question	Upon review with original measure developer E-Source, decision that using furnace capacity when AC capacity is unknown is appropriate.
Add fossil fuel savings to solar water heating measure	Duplicate items.
Update of Solar Water Heating measure: include fossil fuel savings & revised incremental cost	
5.5.13 EISA Exempt Direct Install Lighting measures - EUL Clarification	No update. This is intentional as EISA is not being applied to these measures.
Coincidence Factor Issue	Assumptions are based upon IL program evaluations. While it may potentially be counterintuitive, there may be legitimate reasons and we do not have a better source.
Update HER Persistence Factors	The evaluation will be in 2027 leading to potential updates in 2028.
VEIC Reliability Reviews 2026	VEIC performed a reliability review on 53 measures this year. Many updates are recommended as described above.
Clarification on Thermal Regain Factor in C&I Pipe Insulation measure	Tracker items not being pursued as per requestor. Some may be revisited for v16.
ESF Update for VSD on Chilled Water Pump	
Expand Boiler Chemical Descaling to Include Tube Replacement	
Room air conditioner	
Alternative Form Factor Heat Pumps (AFFHPs)	
Air filter furnace	
Deem Percentage of Basements Conditioned/Semi-Conditioned	
Voltage Optimization Measure	
Efficient Genset Heaters	

Tracker Items:	Comments
Water Flow Regulator	
New Construction Deemed Therm Savings by Capacity Range	
Advanced Rooftop Controls - Replacing Non-functional Controls	
Solar Air Heater	
Cool Roofs	
Commercial Natural Gas Generator	
EUL assumptions for IQ populations	No progress on this item.
Use Standard Algebraic Expressions	VEIC are updating algorithms in the Word documents to use the formula editor for measures we are working on. This process will take time – and continue through this update cycle and likely multiple future cycles.
Label Equations and Tables	No progress on this item. VEIC are reluctant to add additional autoformatting aspects to these very large documents, but will continue to work with the TAC to improve the usability of the documents.
PROVISIONAL On Demand Package Sealer	No significant uptake of measure or evaluation effort. No updates at this time.
PROVISIONAL Energy efficient hydraulic oils	No significant uptake of measure or evaluation effort. No updates at this time.
PROVISIONAL Energy Efficient Gear Oils	