

MEMORANDUM

TO: IL TRM TECHNICAL ADVISORY COMMITTEE

FROM: CHERYL JENKINS, PROJECT MANAGER and SAM DENT, TECHNICAL LEAD - VEIC

SUBJECT: IL TRM VERSION 7 DRAFT 1 - SUMMARY

DATE: 06/28/2018

Cc: ANNETTE BEITEL, SAG

VEIC has submitted the first full draft of the version 7.0 Illinois TRM to the Technical Advisory Committee. This draft includes both proposed redline changes to existing measures and new measures (also in redline) proposed to be included for the first time in this version. Changes have been made to all four volumes:

- IL-TRM_Effective_010119_v7.0_Vol_1_Overview_06282018_DRAFT
- IL-TRM_Effective_010119_v7.0_Vol_2_C_and_I_06282018_DRAFT
- IL-TRM_Effective_010119_v7.0_Vol_3_Res_06282018_DRAFT
- IL-TRM_Effective_010119_v7.0_Vol_4_X-Cutting_Measures_and_Attach_06282018_DRAFT

Presented below are two summary tables. The first (below) provides the measures that have been edited or added, with a brief description of what has changed, whether it is being considered an errata, and a link to the corresponding SharePoint Tracker Item(s). The second 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.

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
Volume 1 – Overview and User Guide				
3.3.1	CFL and LED Baseline Assumptions	N	Removal of T12 as viable baseline option. Additional clarity on EISA backstop provision.	N/A
3.5	Electrical Loadshapes	N	Addition of third methodology for loadshape development	N/A
Table 3.4	Loadshapes by Season	N	Addition of column showing loadshape source. Update to R06 Residential Indoor Lighting. New loadsape R16 Residential Holiday String Lighting. Update to C06 Commercial Indoor Lighting. Update to C08 Health Indoor Lighting. Update to C09 Office Indoor Lighting. Update to C11 Retail Indoor Lighting. Update to C12 Warehouse Indoor Lighting.	Update Res LED lighting loadshape C&I Lighting Load Shapes Updates

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
			Update to C13 Education Indoor Lighting. Update to C20 Commercial Outdoor Lighting.	
3.7	Heating and Cooling Degree-Day Data	N	Reference to new Excel file on SharePoint containing Illinois zip codes with corresponding heating and cooling zones.	Possibility to define standardized list of zip codes by climate zone
Volume 2 – Commercial and Industrial Measures				
4.1.1	Engine Block Timer for Agricultural Equipment	N	Assumptions adjusted from Vermont basis to Illinois climate. Variables defined.	N/A – Reliability review
4.1.2	High Volume Low Speed Fans	N	Minor typo fixes	N/A – Reliability review
4.1.3	High Speed Fans	N	Minor typo fixes	N/A – Reliability review
4.1.4	Livestock Waterer	N	Minor typo fixes. Additions to measure and coincidence factor description.	N/A – Reliability review Correct live stock to livestock
4.2.2	Commercial Solid and Glass Door Refrigerators and Freezers	N	Updated based on new ENERGY STAR and Federal Standard	N/A – Reliability review C&I Commercial Solid and Glass Door Refrigerators & Freezers - baseline update
4.2.3	Commercial Steam Cooker	N	Addition of secondary kWh savings for water supply	Add energy per gallon factor
4.2.6	ENERGY STAR Dishwasher	N	Addition of secondary kWh savings for water supply and waste water treatment	Add energy per gallon factor
4.2.7	ENERGY STAR Fryer	N	Updated based on new ENERGY STAR spec. Updated Measure Life	N/A – Reliability review
4.2.10	ENERGY STAR Ice Maker	N	Measure Life Update. Update to Federal Standard and ENERGY STAR specifications effective January 2018.	C&I Ice Maker - baseline update
4.2.11	High Efficiency Pre-Rinse Spray Valve	N	Addition of secondary kWh savings for water supply and waste water treatment	Add energy per gallon factor
4.3.1	Storage Water Heater	N	No change	N/A – Reliability review
4.3.2	Low Flow Faucet Aerators	N	Measure Life Update. Addition of secondary kWh savings for water supply and waste water treatment	N/A – Navigant EUL Study Add energy per gallon factor
4.3.3	Low Flow Showerheads	N	Addition of secondary kWh savings for water supply and waste water treatment	Add energy per gallon factor
4.3.4	Commercial Pool Covers	N	Addition of secondary kWh savings for water supply	Add energy per gallon factor

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
4.3.5	Tankless Water Heater	N	Gas storage baseline definition made consistent with Storage Water Heater	N/A – Reliability review
4.3.6	Ozone Laundry	N	Addition of secondary kWh savings for water supply and waste water treatment	Add energy per gallon factor
4.4	HVAC End Use	N	Update to select building type heating and cooling EFLH assumptions that have been transitioned and calibrated to OpenStudio by the Modeling Subcommittee. Model Source provided in table	N/A – Modeling Subcommittee
4.4.1	Air Conditioner Tune-Up	Y	Correction of error in algorithm for deemed approach.	See errata memo Fix algorithm on 4.4.1 Air conditioned Tune up
4.4.5	Condensing Unit Heaters	N	No change	N/A – Reliability review
4.4.6	Electric Chiller	N	Measure Life Update.	N/A – Navigant EUL Study
4.4.7	ENERGY STAR and CEE Super-Efficient Room Conditioner	N	Update to Federal Standard and Efficient specifications.	N/A – Reliability review
4.4.9	Heat Pump Systems	N	Update to Federal Standard	C&I Heat Pump Systems - baseline update
4.4.10	High Efficiency Boiler	N	No change	N/A – Reliability review
4.4.11	High Efficiency Furnace	N	Update to select building type cooling run hours assumptions that have been transitioned and calibrated to OpenStudio by the Modeling Subcommittee. Model Source provided in table	N/A – Modeling Subcommittee
4.4.12	Infrared Heaters (all sizes), low Intensity	N	No change	N/A – Reliability review
4.4.13	Package Terminal Air Conditioner (PTAC) and Package Terminal Heat Pump (PTHP)	N	Measure Life Update. Update to Federal Standard	N/A – Navigant EUL Study C&I Package Terminal Air Conditioner (PTAC) and Package Terminal Heat Pump (PTHP) - baseline update
4.4.14	Pipe Insulation	N	Assumptions for larger pipe sizes added.	Change/Clarification to the pipe insulation measure
4.4.15	Single-Package and Split System Unitary Air Conditioners	N	Update to Federal Standard. Clarification of use of EER for older units.	C&I Single-Package and Split System Unitary Air Conditioners - baseline update Updated Single-Package & Split System Unitary Air Conditions to allow use of EER
4.4.17	Variable Speed Drives for HVAC Pumps and Cooling Tower Fans	N	Update to select building type heating and cooling run hours assumptions that have been transitioned and calibrated to	N/A – Modeling Subcommittee

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
			OpenStudio by the Modeling Subcommittee. Model Source provided in table	
4.4.19	Demand Controlled Ventilation	N	Addition of assumptions for adding DCV controls to exhaust fans in enclosed parking garages	Add garage building type for DCV
4.4.25	Small Commercial Programmable Thermostat Adjustments	Y	Correction of error in the Natural Gas Climate Zone Coefficients for Assembly building type.	See errata memo
		N	Measure Life Update.	N/A – Navigant EUL Study
4.4.26	Variable Speed Drives for HVAC Supply and Return Fans	N	Measure cost update. Update to select building type fan run hours assumptions that have been transitioned and calibrated to OpenStudio by the Modeling Subcommittee. Model Source provided in table	Updated incremental costs for VSDs N/A – Modeling Subcommittee
4.4.30	Notched V Belts for HVAC Systems	N	Update to select building type fan run hours assumptions that have been transitioned and calibrated to OpenStudio by the Modeling Subcommittee. Model Source provided in table	N/A – Modeling Subcommittee
4.4.32	Combined Heat and Power	N	Update to Heat Rate base on eGrid 2016	N/A
4.4.35	Economizer Repair and Optimization	Y	Correction of error in Integrated Economizer Operation (EL) variable and example calculation.	See errata memo
4.4.36	Multi-Family Space Heating Steam Boiler Averaging Controls	N	Change to qualification criteria. Measure cost update. Change to Savings Factor	Update savings reference and measure description
4.4.36	Unitary HVAC Condensing Furnace	N	No change	N/A – Reliability review
4.4.40	Gas High Efficiency Single Package Vertical Air Conditioner	N	New Measure	New condensing through the wall furnace
4.4.41	Advanced Rooftop Controls	N	New Measure	New Measure - Advanced Rooftop Controls (ARC)
4.4.42	Advanced Thermostats for Small Commercial	N	New Measure	New Measure - Advanced Thermostats for C/I
4.4.43	Packaged RTU Sealing	N	New Measure	New Measure - Packaged RTU Sealing

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
4.4.44	Efficient Thermal Oxidizers	N	New Measure	Regenerative and Recuperative Thermal Oxidizers
4.4.45	Commercial Ground Source Heat Pump	N	New Measures	Add C&I Ground Source Heat Pump measure
4.5	Lighting End Use Table	N	Update to select building type assumptions that have been transitioned and calibrated to OpenStudio by the Modeling Subcommittee. Change to Exterior dusk to dawn hours assumption. Change to Refrigerator and Freezer Coincidence Factor.	N/A – Modeling Subcommittee Update to LED Streetlighting HOU Update coincidence factor for refrigerator case lighting
4.5.1	Commercial Compact Fluorescent Lamp	N	Addition of language that measure is effective until 12/31/2018.	Review measures to see if any can be retired
4.5.3	High Performance and Reduced Wattage T8 Fixtures and Lamps	N	Removal of T-12 as viable baseline. Measure Life Update. Update to C&I v RES split and ISR.	Review measures to see if any can be retired N/A – Navigant EUL Study Update ISR/HOU/leakage/res-nonres split for commercial lighting programs (screw-base LEDs and linear fluorescent)
4.5.4	LED Bulbs and Fixtures	Y	Correction of year that the mid-life adjustment applies to account for T12 replacement, from 2018 to 2019. Addition of mid-life adjustment assumptions for omnidirectional screw based lamps.	See errata memo Midlife Adjustment table needs to be added to C&I version of LED lamps
		N	Removal of T-12 as viable baseline. Update to Lamp lumen bins. Decorative Lamp assumptions made consistent with Residential measure Update to C&I v RES split and ISR. Clarification on calculation of 3-way lamps.	Review measures to see if any can be retired Update ISR/HOU/leakage/res-nonres split for commercial lighting programs (screw-base LEDs and linear fluorescent) Commercial lighting ISR Review C&I LED Fixture table assumptions Review proposed 2020 lighting standards Add measure and baseline wattage calculations for 3-way screw in LEDs
4.5.5	Commercial LED Exit Signs	N	Update to lifetime. Update to WattsBase and WattsEE assumptions	Clarify LED exit sign language for multifamily buildings
4.5.8	Miscellaneous Commercial/Industrial Lighting	N	Measure Life Update.	N/A – Navigant EUL Study

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
4.5.10	Lighting Controls	N	Combining occupancy, daylighting and integrated controls in to one measure. Updating watts controlled and % savings factors. Updated costs.	Add Daylighting Controls/Harvesting Measure C&I Occupancy Sensor Lighting Controls
4.5.12	T5 Fixtures and Lamps	N	Measure Life Update. Removal of T-12 as viable baseline.	N/A – Navigant EUL Study Review measures to see if any can be retired
4.5.14	Commercial Specialty Compact Fluorescent Lamp	N	Addition of language that measure is effective until 12/31/2018.	Review measures to see if any can be retired
4.5.16	LED Streetlighting	N	New Measure	Add streetlighting measure
4.6.1	Automatic Door Closer for Walk-In Coolers and Freezers	N	Reference update	N/A – Reliability review
4.6.2	Beverage and Snack Machine Controls	N	No change.	N/A – Reliability review
4.6.3	Door Heater Controls for Cooler or Freezer	N	Measure Life Update.	N/A – Navigant EUL Study
4.6.5	ENERGY STAR Refrigerated Beverage Vending Machine	N	No change.	N/A – Reliability review
4.6.6	Evaporator Fan Control for Electrically Commutated Motors	N	Measure Life Update.	N/A – Navigant EUL Study
4.6.10	High Speed Roll Up Doors	N	Measure Life Update.	N/A – Navigant EUL Study
4.6.11	Q-Sync Motors for Reach-in Coolers/Freezers	N	New measure	Synchronous motors for refrigeration evaporator fans
4.7.1	VSD Air Compressor	N	Clarification on measure eligibility. Additional baseline characterized. CF for varying shift lengths. Measure Life Update. Note measure code change.	VSD Air Compressors: Should this more explicitly limit the savings to one compressor per system? VSD Air Compressors - update baseline for oil-free compressors. N/A – Navigant EUL Study
4.7.2	Compressed Air Low Pressure Drop Filters	N	Measure Life Update. CF for varying shift lengths. Note measure code change.	N/A – Navigant EUL Study Add coincidence factors to 4.7.2. and 4.7.3

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
4.7.3	Compressed Air No-Loss Condensate Drains	N	Added CF assumption. Note measure code change.	Add coincidence factors to 4.7.2. and 4.7.3
4.7.4	Efficient Compressed Air Nozzles	N	CF for varying shift lengths. Note measure code change.	N/A Add coincidence factors to 4.7.2. and 4.7.3
4.7.5	Efficient Refrigerated Compressed Air Dryer	N	Measure Life Update. CF for varying shift lengths. Removal of default 50% CFM factor.	N/A – Navigant EUL Study Update to savings for Compressed Air Cycling Dryers
4.8.1	Pump Optimization	N	Measure Life Update.	N/A – Navigant EUL Study
4.8.7	Advanced Power Strip – Tier 1 Commercial	N	Algorithm typo fixed	C&I Advanced Power Strip – Tier 1 Commercial
4.8.10	Commercial Clothes Dryer Moisture Sensor	N	New Measure	Commercial clothes dryer moisture sensing controller
Volume 3 – Residential Measures				
5.1.2	ENERGY STAR Clothes Washer	Y	Update to Federal Standard.	See errata memo Clothes Washer Federal Standard
		N	Addition of CEE Tier 3. Update to assumptions based on current available product and updated RECS information. Addition of secondary kWh savings for water supply and waste water treatment	Add energy per gallon factor
5.1.3	ENERGY STAR Dehumidifier	Y	Update to ENERGY STAR specification.	See errata memo Update Dehumidifier ESTAR level and review Dehumidifier Federal Standard
		N	Update to Federal Standard criteria. Update to measure cost.	N/A – Reliability review Update Dehumidifier ESTAR level and review Dehumidifier Federal Standard
5.1.4	ENERGY STAR Dishwasher	N	Update to measure cost. Update to operating hours assumption. Addition of secondary kWh savings for water supply and waste water treatment	N/A – Reliability review Add energy per gallon factor
5.1.5	ENERGY STAR Freezer	N	Measure Life Update.	N/A – Navigant EUL Study Update Energy Star Freezer Footnote
5.1.6	ENERGY STAR and CEE Tier 2 Refrigerator	N	Measure Life Update.	N/A – Navigant EUL Study
5.1.7	ENERGY STAR Room Air Conditioner	N	Removal of Connected Allowance from ENERGY STAR specification.	Room AC connected allowance

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
5.1.8	Refrigerator and Freezer Recycling	N	Removal of NTG discussion and reference to section 4.2. Measure Life Update.	NTG language in Refrig Recycling measure N/A – Navigant EUL Study
5.1.9	Room Air Conditioner Recycling	N	Update to assumption of retired unit efficiency.	N/A – Reliability review
5.1.10	ENERGY STAR Clothes Dryer	N	Measure Life Update.	N/A – Navigant EUL Study
5.1.12	Ozone Laundry	N	New Measure.	Residential Ozone Laundry - Measure Addition
5.2.1	Advanced Power Strip – Tier 1	N	Clarification of ISR definitions	Add clarifying language in APS table where it says "all other delivery methods"
5.2.2	Advanced Power Strip – Residential Audio Visual	N	Clarification of ERP	N/A
5.3.1	Air Source Heat Pump	N	Note added that it is not appropriate to claim additional ECM savings. Addition of Quality Install assumptions. Measure Life Update. Updates to existing and in-situ efficient ratings.	Clarify interaction between new HVAC and ECM Verified quality install for AC N/A – Navigant EUL Study Update residential HVAC with metering study results
5.3.3	Central Air Conditioning	N	Note added that it is not appropriate to claim additional ECM savings. Addition of Quality Install assumptions. Update efficient condition specifications. Updates to existing and in-situ efficient ratings.	Clarify interaction between new HVAC and ECM Verified quality install for AC Update CAC efficiency assumption Update residential HVAC with metering study results
5.3.5	Furnace Blower Motor	N	Updates to description. Change to savings methodology based on Opinion Dynamics and Cadmus metering study. Measure Life Update.	Update residential HVAC with metering study results N/A – Navigant EUL Study
5.3.6	Gas High Efficiency Boiler	N	Change to 'EFLH * Capacity' methodology.	N/A – discussed through HVAC/Shell interaction subcommittee.
5.3.7	Gas High Efficiency Furnace	N	Change to 'EFLH * Capacity' methodology.	N/A – discussed through HVAC/Shell interaction subcommittee.
5.3.8	Ground Source Heat Pump	N	Update to gas water heater Federal standard. Addition of GSHP as an existing option for early replacement. Updates to existing efficient ratings. Update to Heat Rate base on eGrid 2016.	Request to include GSHP baseline Update residential HVAC with metering study results
5.3.9	High Efficiency Bathroom Exhaust Fan	N	Update to include both standard and continuous usage. Addition of ENERGY STAR specifications.	N/A – Reliability review

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
5.3.11	Programmable Thermostats	N	Measure Life Update.	N/A – Navigant EUL Study
5.3.12	Ductless Heat Pumps		Measure Life Update. Addition of incremental cost from baseline DMSHP. Updates to existing efficient ratings. Update to Heat Rate base on eGrid 2016.	N/A – Navigant EUL Study Update residential HVAC with metering study results
5.3.13	Residential Furnace Tune-Up	N	Clarification of measure life. Methodology added to use HVAC SAVE outputs directly. Change to 'EFLH * Capacity' methodology.	QI and QM evaluations N/A – discussed through HVAC/Shell interaction subcommittee.
5.3.16	Advanced Thermostats	N	Measure Life Update. Updates to existing efficient ratings. Updates to assumptions based on Navigant program participant evaluation Update to cooling % reduction assumption.	N/A – Navigant EUL Study Update residential HVAC with metering study results Update to Advanced Thermostat measure based on evaluation research Using ENERGY STAR values for Advanced Thermostat measure Recommendation for advanced thermostat energy savings for the IL TRM
5.3.17	Gas High Efficiency Combination Boiler	N	New Measure	Update to the gas high efficiency boiler measure
5.4.1	Domestic Hot Water Pipe Insulation	N	Addition of circumference factor pre- and post-insulation.	Update to hot water pipe insulation algorithm
5.4.2	Gas Water Heater	N	Addition of Uniform Energy Factor. Update to gas water heater Federal standard.	Update Gas and HP Water Heater measures to use Uniform Energy Factor
5.4.3	Heat Pump Water Heaters	N	Addition of Uniform Energy Factor Update to electric water heater Federal Standard. Update to measure costs. Update to COP of cooling estimate. Measure Life Update.	Update Gas and HP Water Heater measures to use Uniform Energy Factor Interactive Factor Calculation for HPWH N/A – Navigant EUL Study
5.4.4	Low Flow Faucet Aerators	N	Measure Life Update. Updates to eligibility and existing GPM assumptions. Updates to ISR assumptions Addition of secondary kWh savings for water supply and waste water treatment. Update to Gallons per Hour calculation.	N/A – Navigant EUL Study Baseline GPM change for faucet aerator measures, based on 6 months of flow rate testing. Update residential aerator and showerhead ISR Add energy per gallon factor Clarification on Hot Water Temperature Assumptions and GPH Recovery Rates
5.4.5	Low Flow Showerheads	N	Updates to eligibility and existing GPM assumptions. Updates to ISR assumptions	Baseline GPM change for showerhead measures, based on 6 months of flow rate testing. Update residential aerator and showerhead ISR Add energy per gallon factor

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
			Addition of secondary kWh savings for water supply and waste water treatment. Update to Gallons per Hour calculation.	Clarification on Hot Water Temperature Assumptions and GPH Recovery Rates
5.4.8	Thermostatic Restrictor Shower Valve	N	Addition of secondary kWh savings for water supply and waste water treatment	Add energy per gallon factor
5.4.9	Shower Timer	N	Addition of secondary kWh savings for water supply and waste water treatment	Add energy per gallon factor N/A – Reliability review
5.5.1	Compact Fluorescent Lamp	Y	Addition of leakage assumption to kW and waste heat algorithms.	See errata memo
		N	Addition of language that measure is effective until 12/31/2018.	Review measures to see if any can be retired
5.5.2	Specialty Compact Fluorescent Lamp	Y	Addition of leakage assumption to kW and waste heat algorithms.	See errata memo
		N	Addition of language that measure is effective until 12/31/2018.	Review measures to see if any can be retired
5.5.3	ENERGY STAR Torchiere	Y	Addition of leakage assumption to kW and waste heat algorithms.	See errata memo
		N	Addition of language that measure is effective until 12/31/2018.	Review measures to see if any can be retired
5.5.4	Exterior Hardwired Compact Fluorescent Lamp Fixture	Y	Addition of leakage assumption to kW and waste heat algorithms.	See errata memo
		N	Addition of language that measure is effective until 12/31/2018.	Review measures to see if any can be retired
5.5.5	Interior Hardwired Compact Fluorescent Lamp Fixture	Y	Addition of leakage assumption to kW and waste heat algorithms.	See errata memo
		N	Addition of language that measure is effective until 12/31/2018.	Review measures to see if any can be retired
5.5.6	LED Specialty Lamps	Y	Addition of leakage assumption to kW and waste heat algorithms.	See errata memo
		N	Updates to Res v C&I split, ISR, leakage, CF and HOU. Format of watts tables updated. Clarification on deferred install methodology.	Update ISR/HOU/leakage/res-nonres split for Res Lighting Change Lighting Carryover Instructions Review proposed 2020 lighting standards
5.5.7	LED Exit Signs	N	Clarity of application within multifamily unit. Measure made RF only. Measure life adjusted accordingly. Measure cost updated. Base and Efficient wattage adjusted.	Clarify LED exit sign language for multifamily buildings N/A – Reliability review
5.5.8	LED Screw Based Omnidirectional Bulbs	Y	Addition of leakage assumption to kW and waste heat algorithms.	See errata memo
		N	Updates to Res v C&I split, ISR, leakage, CF and HOU.	Update ISR/HOU/leakage/res-nonres split for Res Lighting Change Lighting Carryover Instructions

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
			Clarification on deferred install methodology.	Review proposed 2020 lighting standards
5.5.9	LED Fixtures	N	New Measure	Add LED fixture measure
5.5.10	Holiday String Lighting	N	New Measure	LED Holiday Lights
5.5.11	LED Nightlights	N	New Measure	N/A – request from CLEAResult
5.6.1	Airsealing	N	Update to measure life. Addition of cooling, heating fan and gas heating adjustment factors, with distinction made between measures combined with attic insulation or not.	N/A – Navigant EUL Study Savings Update based on Air Sealing and Insulation study
5.6.2	Basement Sidewall Insulation	N	Update to measure life.	N/A – Navigant EUL Study
5.6.3	Floor Insulation Above Crawlspace	N	Update to measure life.	N/A – Navigant EUL Study
5.6.4	Wall Insulation	N	Separation of Wall and Ceiling/Attic Insulation measures Update to measure life. Note new Measure Code.	N/A – Navigant EUL Study Savings Update based on Air Sealing and Insulation study
5.6.5	Ceiling/Attic Insulation	N	Separation of Wall and Ceiling/Attic Insulation measures Update to measure life. Updates to cooling, gas heating adjustment factors plus addition of heating fan adjustment factor, with distinction made between measures combined with airsealing measure or not.	N/A – Navigant EUL Study Savings Update based on Air Sealing and Insulation study
5.6.6	Rim/Band Joist Insulation	N	New Measure	Add rim joist insulation measure
5.7.1	High Efficiency Pool Pumps	N	Update to ENERGY STAR specifications. Addition of above ground pools. Update to measure cost.	Pool pump - ESTAR V2.0 due in 2018
Volume 4 – Cross-Cutting Measures and Attachments				
Attachment B	Effective Useful Life for Custom Measure Guidelines	N	New section describing process and defaults for custom measure effective useful lives.	N/A – EUL Subcommittee

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
Pending/ In Progress Updates	
Savings Update based on Air Sealing and Insulation study	Updates to Air sealing and Ceiling / Attic Insulation have been made. Ongoing discussions around other insulation measure adjustments.
Update to behavioral persistence measure based on evaluation research	Multiple subcommittee calls. Updates still pending. Proposed changed will be available for second draft.
Update Savings Persistence Calculations for Cost-Effectiveness of Home Energy Reports	
Updates to behavioral measure	
Update hyperlinks	VEIC will work on fixing these during the review cycle to be ready for the second draft.
Provide a comprehensive definition to guide the choice of single family versus multi-family assumptions for smaller MF structures and households	Multiple TAC discussions. Navigant and Nicor tasked with reviewing each instance of a MF v SF distinction and producing table indicating what assumption should be used for multiple building types. This effort may lead to a comprehensive definition or be a new section in Volume 1.0
Consider Adding Public Sector Building Types Clarification on Building Types	Modeling subcommittee will work on adding additional building types for next deliverable.
CHP System – electric conversion efficiency factor	Navigant reviewing potential measure text edits to address lifetime savings calculations
Energy Recovery Ventilation - Cooling	Workpaper incomplete.
Refrigeration condenser fan VFDs	Measure awaiting final evaluation study results.
Add measure for installing new or retrofitting existing coolers/freezers with doors	Ongoing discussions around methodology. Will add new measure draft to second deliverable.
Adsorbant Air Cleaning	Ongoing model configurations. Will add new measure draft to second deliverable.
Ensure all measures are consistent with final WAML policy	VEIC will review during the review cycle.
Items not proceeding	
Laminar Flow Restrictors for Healthcare - Measure Addition	As discussed at a TAC meeting, this measure is already captured in the existing Faucet Aerator measure.
Update Energy Star Freezer Footnote	Measure life was updated based on Navigant EUL study so this becomes moot.
Request to provide deemed capacity	Upon review and discussion, the EFLH for multifamily accounts for reduced consumption of MF units, so no need to reduce capacity as well.
Update residential lighting 2nd and 3rd year ISR to reflect UMP methodology	TAC decision not to update methodology used for carry over bulbs.
Change in federal efficiency rating	While the update from EF to UEF has been made to the Residential measure, the commercial units are not affected.