

MEMORANDUM

TO: TECHNICAL ADVISORY COMMITTEE

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

SUBJECT: TRM VERSION 5 – FINAL

DATE: 02/11/2016

Cc: ANNETTE BEITEL, SAG

VEIC has submitted the final draft of Version 5.0 of the Illinois TRM, including all the measure edits and new measures proposed, discussed, and review by the Technical Advisory Committee.

Presented below is a summary table that provides all measures that have undergone edits in this round of updates with a brief description of what has changed, whether it is being considered an errata, and a link to the corresponding initial SharePoint Tracker Item(s). Note that additional changes following the second full draft review are highlighted in red.

Measure # and Name	Errata?	Brief description of what changed	Tracker Item(s)
Sections 1-3	N	Hotel and Motel and Low-use Small Business Definitions.	Update Building Types and Definitions in Glossary to be consistent with Building Types used in the IL-TRM Measures
		Proposed new section 3.8 Measure Incremental Cost Definition.	Update Deemed Measure Cost Descriptions
		Updates to dates, references, "Summary of Measure Revisions" and Early Replacement section. Removal of proposed additions to Section 3.2 for business closures (TAC decision to continue discussion in Policy Manual). Replacement of light/heavy industry with manufacturing building type definition. Addition of Childcare/Pre School. Addition of text in regard to applying inflation rates to future costs. Updating the real discount rate for O&M NPV calculations. Edited a few measure codes including 2 existing measures (4.4.30 and 4.7.6). Added clarity on PAR/MR/MRX lamp adjustment. Edits to Section 2 Organizational Structure to better represent the new 4 volume structure.	N/A

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
			Edits to table 2.1 with additional end use categories.	
4.2.1	Combination Oven	N	Re-write using algorithms rather than deemed savings. Standard updates. Added electric combination ovens. Fixed ENERGY STAR calculator error on GasIdle assumption.	Update Deemed values from Nicor 2011-2014 plan
4.2.3	Commercial Steam Cooker	N	Formatting edits to algorithm for clarity and improved reference.	Commercial Steam Cooker
4.2.6	ENERGY STAR dishwasher	N	ENERGY STAR standard update. Reworked measure to more accurately reflect calculation. Improved reference.	Standard update for commercial dishwashers
4.2.8	ENERGY STAR Griddle	N	Fixed error in Daily Idle Energy Calculation. Improved reference.	Error in Griddle Algorithm
4.2.9	ENERGY STAR Hot Food Holding Cabinets	N	Improved reference.	None
4.2.11	High Efficiency Pre-Rinse Spray Valve	N	Added reference to IECC 2015 Minor edits	Incorporate IECC2015 Code Changes
4.3.1	Storage Water Heater	N	Changed methodology from deemed approach to algorithm. Minor clarifying edits. Removal of distinction between rated and measured volume in Standby calculation. Addition of gas baseline efficiency standards.	4.3.1 Storage Water Heater Tank Sizes
4.3.2	Low Flow Faucet Aerators	N	Fixed EPG factor dependent on water temperature. Fixed error in example result	Error in EPG_elec and EPG_gas values for Low Flow faucet aerators
4.3.5	Tankless Water Heater	N	Added reference to IECC 2015	Incorporate IECC2015 Code Changes
4.3.7	Multifamily Central Domestic Hot Water Plants	N	Updated DeOreo reference.	Update reference to DeOreo Aquacraft evaluation, to final version
		N	Added reference to IECC 2015	Incorporate IECC2015 Code Changes
New – 4.3.9	Heat Recovery Grease Trap Filter	N	New Measure Some minor edits to clarify the algorithms. Edit to measure code.	Grease trap filter
4.4	HVAC End Use	N	Added reference to Navigant EFLH study	None
4.4.1	Air Conditioner Tune up	N	Removed SEER test for <65kBtu - now EER test for all.	C&I Central AC Tune Up

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
			Added explanation of test methodology.	
4.4.2	Space Heating Boiler Tune Up	N	Added clarifying language on appropriate firing rates for combustion efficiency testing.	Clarification of Boiler Tune-Up Combustion Efficiency
4.4.3	Process Boiler Tune Up	N	Added clarifying language on appropriate firing rates for combustion efficiency testing.	Clarification of Boiler Tune-Up Combustion Efficiency
4.4.6	Electric Chiller	N	Added specifications for IECC 2015 Updated cost assumptions	Incorporate IECC2015 Code Changes
4.4.7	Lighting Power Density	N	Added specifications for IECC 2015	Incorporate IECC2015 Code Changes
4.4.9	Heat Pump Systems	N	Added specifications for IECC 2015 Fixed result error in example Added HSPF/COP conversions. Clarified baseline applicable dates and TOS.	Incorporate IECC2015 Code Changes
4.4.11	High Efficiency Furnace	Y	Future deferred baseline replacement cost increased in line with inflation	
		N	Update of Heating Fan hour assumptions Fix typo in example calculation Added remaining HOURS assumptions Added building specific coincidence factors Clarification of Early Replacement determination (typo fixed as costs not per ton) Clarified text on unknown efficiency to use assumptions in variable list.	Update Pump and Fan Hours assumption
4.4.13	PTAC and PTHP	Y	Future deferred baseline replacement cost increased in line with inflation	
		N	Added specifications for IECC 2015. Updated SEER to EER conversion	Incorporate IECC2015 Code Changes
4.4.14	Pipe Insulation	N	Allow for custom 3E Plus derived entry. Added ability to use actual boiler efficiency	Use 3E Plus for Heat Loss
4.4.15	Single-Package and Split System Unitary AC	N	Added specifications for IECC 2015 Updated SEER to EER conversion Clarified baseline applicable dates and TOS.	Incorporate IECC2015 Code Changes
4.4.16	Steam Trap Replacement or Repair	N	Providing clarifying edits and secondary equations to calculate maximum steam loss. Allowing actual steam pressure and HOU entry. Update values for deemed average pressure and operating hours based on	Update Deemed values from Nicor 2011-2014 plan

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
			program data. Minor updates to table format. Added definition of 24.24 lb/(hr-psia-in ²)	
4.4.17	Variable Speed Drives for HVAC Pumps and Cooling Tower Fans	N	Added reference to IECC 2015	Incorporate IECC2015 Code Changes
			Updated Heating and Cooling HOU assumptions	Update Pump and Fan Hours assumption
			Added remaining HOURS assumptions. Fixed reference to CT methodology. Additional table indicating when to use Heating v Cooling v Heating and Cooling Hours.	None
4.4.19	Demand Control Ventilation	N	Added heating savings for electrically heated buildings (resistance and heat pump).	4.4.19 DCV Heating and Cooling Equipment Types
4.4.21	Linkageless Boiler Controls for Space Heating	N	Clarity on VSD measure referred to for electric savings	None
4.4.24	Small Pipe Insulation	N	Allow for custom 3E Plus derived entry.	Use 3E Plus for Heat Loss
4.4.26	Variable Speed Drives for Supply and Return Fans	N	Added reference to IECC 2015	Incorporate IECC2015 Code Changes
			Updated Heating, Cooling and Ventilation HOU assumptions	Update Pump and Fan Hours assumption
			Added remaining HOURS assumptions	None
4.4.27	Energy Recovery Ventilator	N	Added reference to IECC 2015	Incorporate IECC2015 Code Changes
		N	Removed reference to previously deleted table of building characteristics and replaced with table showing occupied hours. Added column for daily occupancy hours as used in the algorithm.	None
4.4.30	Notched V Belts for HVAC Systems	N	Updated Heating, Cooling and Ventilation HOU assumptions	Update Pump and Fan Hours assumption
			Added remaining HOURS assumptions. Added default motor efficiency. Edit to measure code.	None
4.4.31	Small Business Furnace Tune-Up	N	Added clarifying language on appropriate firing rates for combustion efficiency testing.	Clarification of Boiler Tune-Up Combustion Efficiency
New – 4.4.33	Industrial Air Curtains	N	New Measure Added O&M assumption.	Industrial Air Curtains
NEW – 4.4.34	Destratification Fans	N	New Measure	Thermal Equalizer Destratification Fans
NEW – 4.4.35	Economizer Repair and Optimization	N	New Measure	HVAC Optimization (Economizer Repair & Optimization)

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
NEW – 4.4.36	Multi-Family Space Heating Steam Boiler Averaging Controls	N	New Measure	Averaging Controls for Steam Pipe Systems without Thermostat Radiator Valves
NEW – 4.4.37	Unitary HVAC Condensing Furnace	N	New Measure Added O&M assumptions	High Efficiency Condensing RTUs
4.5	Lighting End Use	N	Updated hours of use and coincidence factors assumptions for select building types based on IL evaluation. Updated hours of use for remaining building types based on eQuest modeling. Provide updated “Unknown” assumptions based on weighted averages. Recalculated WHFd factor to be based on peak period average rather than peak hour. Fix error in Warehouse hours – 5,087 to 5,242. Added Childcare/Pre-School Change column heading to “Building/Space Type”.	Non-Residential Lighting Operating Hours Data Aggregation
			Updated lighting waste heat factors (fixing autosizing issues). Updated remaining building type CFs based on eQuest models.	Error in Lighting IFkWh interaction factors WHFd - fix EQuest modeling autosizing issue Discuss if eQuest models should be used to develop C&I Lighting CFs
4.5.1	Commercial ENERGY STAR CFL	N	Updated O&M calc with new RDR of 5.34% and with new hour assumptions Clarification that O&M costs should be multiplied by ISR.	
4.5.3	High Performance and Reduced Wattage T8 Fixtures and Lamps	N	Adjustment of T12 baseline. Clarity of adjustment date.	T-12 Baseline
		N	Table review – providing nominal and ballast factor assumptions. Adding significant digits to show difference in values. Changes made to Table A-2 baseline wattage for all magnetic and EEmagnetic ballast types.	HP and RW T8 Fixtures
4.5.4	LED Bulbs and Fixtures	N	Adjusted language for PAR, MR, and MRX Lamps.	Refine PAR, MR and MRX Base Watt Algorithm (LEDs and CFLs)
		N	Adding incremental cost to reference tables. Updating O&M for Standard Omnidirectional lamps. Updating and consolidating reference tables.	LED Bulbs and Fixtures

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
4.5.7	Lighting Power Density	N	Added specifications for IECC 2015	Incorporate IECC2015 Code Changes
4.5.9	Multi-Level Lighting Switch	N	Added reference to IECC 2015	Incorporate IECC2015 Code Changes
4.5.10	Occupancy Sensor Lighting Controls	N	Update to costs, kW connected and % savings. Minor edits	Occupancy Sensor Lighting Controls - addl Energy Savings Factor
4.5.12	T5 Fixtures and Lamps	N	Adjustment of T12 baseline.	T-12 Baseline
4.5.13	Occupancy Controlled Bi-Level Lighting Fixtures	N	Added reference to IECC 2015	Incorporate IECC2015 Code Changes
4.5.14	Commercial ENERGY STAR Specialty Compact Fluorescent Lamp	N	Adjusted language for PAR, MR, and MRX Lamps. Clarification that O&M costs should be multiplied by ISR.	Refine PAR, MR and MRX Base Watt Algorithm (LEDs and CFLs)
NEW – 4.7.5	Cycling Compressed Air Dryer	N	New Measure	New Measure - Cycling Refrigerated Compressed Air Dryers
4.7.6 – Changed to: 4.8.2	Roof Insulation for C&I Facilities	N	Added specifications for IECC 2015 Edit to measure code.	Incorporate IECC2015 Code Changes
NEW – 4.8.4	Modulating Commercial Gas Clothes Dryer	N	New Measure	Modulating Dryers
5.1.1	ENERGY STAR Air Purifier	N	Updated using more recent ENERGY STAR calculator.	5.1.1 Air Purifier - update ESTAR calculation
5.1.2	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	N	Added unknown DHW/ known Dryer and known DHW/unknown Dryer to tables. Added decimal place to % of combustion table to bring calculated and algorithm derived values closer. Fixed parentheses issue. Updated % dryer assumptions and associated “unknown” savings. Fixed calculation error for electric DHW/Unknown Dryer.	Few edits to RES Clothes Washer
5.1.3	ENERGY STAR Dehumidifier	N	Removed old ENERGY STAR spec values. Fixed hour assumption listing - calculated deemed values correct. Clarifying text on use of actual capacity. Updated Average calculation based on current ENERGY STAR list.	Dehumidifier calculation hours
5.1.4	ENERGY STAR Dishwasher	N	ENERGY STAR specification update (now separate for Standard, Standard with Connected Functionality and Compact).	None
5.1.6	ENERGY STAR and	Y	Baseline replacement cost now includes	None

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
	CEE Tier 2 Refrigerator		inflation	
		N	Fix typo in algorithm table	None
5.1.7	ENERGY STAR Room AC	Y	Baseline replacement cost now includes inflation	
		N	Update of Federal Standard and ENERGY STAR specifications Changed to EER (not CEER) for existing units since they will not be rated in CEER. Added adjustment from EER to CEER to allow appropriate comparison.	None
5.1.8	Refrigerator and Freezer Recycling	N	Added customers value on lost amenity to measure cost Single door variable listing removed (carry over from previous version) Edit to measure code.	Update Deemed Measure Cost Descriptions
5.2.1	Advanced Power Strip Tier 1	N	Changed name of existing measure (Smart Strip) as proprietary name by single manufacturer.	Optimize measure name to industry-standard term
NEW – 5.2.2	Tier 2 Advanced Power Strips – Residential AV	N	New Measure Minor text additions and clarifications. Edits to qualification criteria.	Advanced Power Strip - Tier 2
5.3.1	Air Source Heat Pump	Y	Baseline replacement cost now includes inflation	None
		N	Clarification of Early Replacement determination Clarifying that if status is unknown, use time of sale assumptions. Added back in text that this measure is for replacing electric heat. Clarified text on unknown efficiency to use assumptions in variable list. Adjusted maximum repair cost back to v4 cost estimate (using non-inflated assumption as cost consideration is in program year)	Residential Air Conditioner Decision Tree
		N	Measure cost update As per 01/19 TAC call, decision to put on hold cost updates until more data is collected and hedonic modeling can be performed to isolate efficiency upgrades.	Update incremental measure costs - ASHP, CAC, ductless mini-splits
		N	Update to CF and EFLH for multifamily homes CF and EFLH updated using TRM defined efficiency assumptions rather than those from metering study.	Metered data for ASHP, Mini-split algorithm

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
5.3.2	Boiler Pipe Insulation	N	Clarity in algorithm for pipe circumference with insulation	None
5.3.3	Central AC	Y	Baseline replacement cost now includes inflation	None
		N	Clarification of Early Replacement determination. Clarifying that if status is unknown, use time of sale assumptions. Clarified text on unknown efficiency to use assumptions in variable list. Adjusted maximum repair cost back to v4 cost estimate (using non-inflated assumption as cost consideration is in program year)	Residential Air Conditioner Decision Tree
		N	Measure cost update As per 01/19 TAC call, decision to put on hold cost updates until more data is collected and hedonic modeling can be performed to isolate efficiency upgrades.	Update incremental measure costs - ASHP, CAC, ductless mini-splits
5.3.4	Duct Insulation and Sealing	N	Added semi-conditioned space savings by use of Thermal Regain Factor. Clarifying edits. Example fix.	5.3.4. Duct Insulation and Sealing
5.3.6	Gas High Efficiency Boiler	Y	Baseline replacement cost now includes inflation Addition of HF in algorithm and variable list	None
		N	Clarification of Early Replacement determination (typo fixed as costs not per ton). Clarifying that if status is unknown, use time of sale assumptions. Clarified text on unknown efficiency to use assumptions in variable list.	Residential Air Conditioner Decision Tree
5.3.7	Gas High Efficiency Furnace	Y	Baseline replacement cost now includes inflation Addition of HF in algorithm	None
		N	Clarification of Early Replacement determination. Clarifying that if status is unknown, use time of sale assumptions. Clarity on Federal Standard. Clarified text on unknown efficiency to use assumptions in variable list.	Residential Air Conditioner Decision Tree
5.3.8	Ground Source Heat Pump	Y	Baseline replacement cost now includes inflation	None
		N	Updated DeOreo reference.	Update reference to DeOreo Aquacraft

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
				evaluation, to final version
		N	Clarification of Early Replacement determination. Clarifying that if status is unknown, use time of sale assumptions. Clarified text on unknown efficiency to use assumptions in variable list. Updated cost assumptions to not be based on Cadmus memo but on v4 costs.	Residential Air Conditioner Decision Tree
5.3.10	HVAC Tune Up	N	Fix typo of variable name. Adding CF _{PJM} for Heat Pumps	None
5.3.12	Ductless Heat Pumps	Y	Removed /1000 from kW calculation since capacity is already in kBtu.	Ductless Heat Pump - kW units error
		N	Measure cost update As per 01/19 TAC call, decision to put on hold cost updates until more data is collected and hedonic modeling can be performed to isolate efficiency upgrades.	Update incremental measure costs - ASHP, CAC, ductless mini-splits
		N	Change of algorithm to be based on Capacity and EFLH as opposed to %displaced and annual load. Update to CF and EFLH. Fixing existing efficiency assumptions. Additional minor edits	Metered data for ASHP, Mini-split algorithm
5.3.13	Residential Furnace Tune-Up	N	Added clarifying language on appropriate firing rates for combustion efficiency testing.	Clarification of Boiler Tune-Up Combustion Efficiency
New – 5.3.16	Advanced Thermostats	N	New Measure Updated heating savings factor and provided strawman for cooling pending further data. Added additional input received on eligibility criteria. Added text on demand response. Adjusted eligibility criteria as approved language. Added 50% of cooling coincidence factor as agreed. Added text on use of ongoing evaluation. Reduced default cooling savings assumption to 8% Clarifying edits to footnote on heating savings. Addition of ISR language for programs where installation is not ensured. Addition of Unknown Multi-Family,	Differentiate the Residential Programmable Thermostat Measure based on Thermostat Capabilities

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
			Unknown Single Family % AC assumptions. Addition of footnote on incorporating recommendations from Navigant on cooling savings percentage.	
5.4.2	Gas Water Heater	Y	Baseline replacement cost now includes inflation	None
		N	Updated DeOreo reference.	Update reference to DeOreo Aquacraft evaluation, to final version
5.4.3	Heat Pump Water Heater	N	Updated DeOreo reference. Added unknown electric heat efficiency assumption.	Update reference to DeOreo Aquacraft evaluation, to final version
5.4.4	Low Flow Faucet Aerators	N	Updated DeOreo reference.	Update reference to DeOreo Aquacraft evaluation, to final version
			Adding ISR assumptions for Efficiency Kits Distinction added for School Efficiency kits	Update ISR for Efficiency Kits
5.4.5	Low Flow Showerheads	N	Adding ISR assumptions for Efficiency Kits Distinction added for School Efficiency kits	Update ISR for Efficiency Kits
5.4.8	Thermostatic Restrictor Shower Valve	N	Add EPG_electric factor in to equation (was correctly used in example)	None
5.5.1	ENERGY STAR Standard CFL	N	Applying new Real Discount Rate (5.34%) Clarification that O&M costs should be multiplied by ISR Added some clarifying language around leakage	None
5.5.2	ENERGY STAR Specialty CFL	N	Adjusted language for PAR, MR, and MRX Lamps. Clarification that O&M costs should be multiplied by ISR Added some clarifying language around leakage	Refine PAR, MR and MRX Base Watt Algorithm (LEDs and CFLs)
5.5.3	ENERGY STAR Torchiere	N	Clarification that O&M costs should be multiplied by ISR Added some clarifying language around leakage	None
5.5.4	Exterior Hardwired CFL	N	Applying new Real Discount Rate (5.34%) Clarification that O&M costs should be multiplied by ISR Added some clarifying language around leakage	None
5.5.5	Interior Hardwired CFL	N	Applying new Real Discount Rate (5.34%) Clarification that O&M costs should be multiplied by ISR Added some clarifying language around leakage	None
5.5.6	LED Specialty Lamps	Y	Changed name of existing measure (LED	Update LED Savings Parameters for non-

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
			Downlight) to LED Specialty Lamps. Made consistent with CFL Specialty assumptions. Removed default efficient wattages as always actuals used.	standard, non-direction LED projects
			Adjusted language for PAR, MR, and MRX Lamps.	Refine PAR, MR and MRX Base Watt Algorithm (LEDs and CFLs)
		N	Added some clarifying language around leakage. Clarification that O&M costs should be multiplied by ISR	None
5.5.8	LED Screw Based Omnidirectional Bulbs	N	Addition of missing Natural Gas penalty section Applying new Real Discount Rate (5.34%) Clarification that O&M costs should be multiplied by ISR. Clarification on Leakage Rates	None
5.6.1 ERRATA	Air Sealing	Y	Changing Latent Multiplier assumption to be based on calculation of hours sensible and total loads. Latent Multiplier values updated slightly based on minor mistake in calculation (as per Bruce Harley)	None – recommendations from Bruce Harley, CLEAResult
5.6.1		N	Changing Latent Multiplier as above. Latent Multiplier values updated slightly based on minor mistake in calculation (as per Bruce Harley) Change cooling and heating n-factor values based on applying LBNL infiltration model. Revert HDD assumption back to base temperature 60F. Adjusting default gas efficiency to 72%.	None – recommendations from Bruce Harley, CLEAResult
		N	Adding prescriptive air sealing savings for when blower door testing is not possible	Include prescriptive residential air sealing measures
5.6.2	Basement Sidewall Insulation	N	Applying 80% adjustment factor to cooling savings and 60% adjustment factor to heating savings as discussed in 11/17 TAC meeting. Adjusting default gas efficiency to 72%.	Air Sealing and Insulation Measures Adjustment Factor Update. Review TRM v metering / billing study results
5.6.3	Floor Insulation above Crawlspace	N	Applying 80% adjustment factor to cooling savings and 60% adjustment factor to heating savings as discussed in 11/17 TAC meeting. Adjusting default gas efficiency to 72%.	Air Sealing and Insulation Measures Adjustment Factor Update. Review TRM v metering / billing study results
5.6.4	Wall and Ceiling	N	Applying 80% adjustment factor to cooling	Air Sealing and Insulation Measures Adjustment Factor Update. Review TRM v metering / billing

Measure # and Name		Errata?	Brief description of what changed	Tracker Item(s)
	Insulation		savings and 60% adjustment factor to heating savings as discussed in 11/17 TAC meeting. Adjusting default gas efficiency to 72%.	study results
NEW – 6.1.1	Adjustments to Behavior Savings to Account for Persistence	N	<p>New Measure</p> <p>Added multi-year persistence assumptions based on industry evidence. Added reference table in support of assumptions. Updated savings adjustment algorithm to reflect effects of multiple years of persistence. Clarified language and variable definitions, including specification that adjustment is applied to each wave separately.</p> <p>Adjusted load shape to reflect industry information.</p> <p>Updated kW adjustment algorithm to reflect effects of multiple years of persistence; added CF approach to use if not measured directly.</p> <p>Updated and expanded examples.</p> <p>Provided explicit guidance for the transition to use for this adjustment (reset) and date for that transition.</p> <p>Adjustment of measure life equivalent to reflect discounted future value.</p> <p>Further specification about programs for which this protocol applies and how the custom savings inputs are adjusted.</p> <p>Expanded discussion of rationale for measure cost.</p> <p>Provided example calculation of inputs to cost-effectiveness calculations.</p> <p>Documented references to NTG study section.</p> <p>Further clarifying edits and title corrections.</p> <p>Multiple recommendations for areas of further evaluation.</p> <p>Edit to measure code.</p> <p>Update to include final ComEd and Nicor persistence evaluations in persistence value.</p> <p>Expanded definition of what is included in the custom savings input to this</p>	Residential Behaviour Change

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		adjustment to include adjustment to reflect standard year weather effects.	
Section 4.7 and 4.8	N	Section 4.7 has become Compressed Air and Section 4.8 has become Miscellaneous. Measure numbers have been updated accordingly	Compressed Air
All		Added Footnote to all pages showing "Version 5.0 DRAFT 12/18/2015"	Footnote Formatting

The second table below provides tracker items that have not been part of the deliverables as they have either been closed, are repeats of other tracker items, are more general in nature, or will be tackled in the next version.

Tracker Items:	Comments
Updating Incremental Cost for Small Commercial Programmable Thermostats and Gas High Efficiency Furnace	Tracker item removed as per request from Bridgid Lutz, Nicor.
Res Thermostats - add furnace fan savings for homes with heat pumps	Decided to put on hold as there are concerns around programmable thermostats and heat pumps
Missing and Broken Links in TRM Sections	Improved format of reference folders. Direct linking possible by moving to web-based database.
Default Fixture Wattage Reference Table	ComEd proposed pulling all fixture wattage assumptions out of the measures and in to a master table. VEIC reviewed this request and have determined it requires a more lengthy effort that could be attempted in a future round.
Revise minimum R-value of residential insulation measures	Not implemented as algorithms already over claiming as per ODC evaluations
Standardization of Algorithm Terms	Propose making part of the reliability review process.
Update ISR for aerators, showerheads, CFLs	Repeat of Tracker entry from Hammad Chaudhry (Nicor).
Adding non-energy benefits to residential "whole house" measures and multi-family measures And Adding non-energy benefits to C&I	After multiple discussions and proposals provided, there is not consensus in the TAC to move forward with the inclusion of NEBs. Many policy issues remain and they will need to be discussed in a different forum. VEIC has provided a memo pulling together the comments received.
Improving TRM documentation, quality, transparency, and replicability	Reliability reviews will improve. Process still to be defined.
New measure request for Tier 1 commercial Advanced Power Strip	VEIC did not receive a workpaper for this measure.
New measure request for RES Advanced Power Strip - Tier 2	Repeat tracker entry