Illinois SAG: TRM Version 5 Launch

September 29, 2015



Launch Is Underway

- Thank you for your patience!
- VEIC team represented today:
 - Cheryl Jenkins Project Manager
 - Sam Dent Technical Manager
 - Rebecca Foster Project Advisor
- Additional key players
 - Asa Parker C&I Specialist
 - Craig Simmons Modeling
 - Nick Lange Smart Thermostat
 - Steph Baer Administrative Coordinator



Agenda

- Overview of Version 5.0 process and schedule
 - Including proposed schedule changes
- Overview of priority measure list
- Administrative projects for Version 5.0



Status Updates

- New tracker view "v5.0 Active Items"
 - On-hold from v4.0 and new items submitted by Stakeholders
 - TAC call held (VEIC absent) to review and prioritize
 - Some additional changes since reported to VEIC

- Currently 66 distinct items
 - 14 new measure proposals
 - 52 changes / corrections / comments on existing measures



Status Updates

New Measures

- Six removed (Nicor; Com Clothes dryer moisture sensors, Low pressure HEPA filters, Lab/Fume hood controls, and GDS; Radiant heater bands, compressor waste heat recovery, insulated pellet dryers)
- Only 2 of remaining 14 have workpapers

Existing Measures

- One removed (Nicor; additional building types for central DHW controls)
- "Admin" 4 items
- "Modeling" 4 items 2 require prior discussion
- "Simple" 21 items 6 require follow up/discussion
- "Medium" 18 items 13 require follow up, 3 require workpaper
- "Complex" 5 items All need discussion, 2 need workpaper



HVAC

Request Summary	Request Type	Requester Name	Priority	Status
Clarification of Boiler Tune-Up Combustion Efficiency	Question/Clarification	Brian Katamay	(1) High	
4.4.19 DCV Heating and Cooling Equipment Types	Change to existing measure	David Diebel	(2) Medium	
5.3.4. Duct Insulation and Sealing	Change to existing measure	George Roemer	(1) High	
Averaging Controls for Steam Pipe Systems without Thermostat Radiator Valves	New measure request	George Roemer	(2) Medium	
High Efficiency Condensing RTUs	New measure request	Hammad Chaudhry	(2) Medium	
Thermal Equalizer Destratification Fans	New measure request	Hammad Chaudhry	(2) Medium	
Industrial Air Curtains	New measure request	Hammad Chaudhry	(2) Medium	
Use 3E Plus for Heat Loss	Change to existing measure	James Gowen	(2) Medium	
Update incremental measure costs - ASHP, CAC, ductless mini-splits	Change to existing measure	Jane Colby	(1) High	
Metered data for ASHP, Mini-split algorithm	Change to existing measure	Jane Colby	(1) High	
Air Sealing and Insulation Measures Adjustment Factor Update. Review TRM v metering / billing study results	Change to existing measure	Jennifer Morris	(1) High	
Res Thermostats - add furnace fan savings for homes with heat pumps	Change to existing measure	Jim Fay	(2) Medium	
C&I Central AC Tune Up	Correction of TRM mistake	Josh Goffin, Benjamin Lipscomb	(1) High	
HVAC Optimization (Economizer Repair & Optimization)	New measure request	Joshua Goffin	(1) High	
Include prescriptive residential air sealing measures	Change to existing measure	Karen Kaminsky	(1) High	
Differentiate the Residential Programmable Thermostat Measure based on Thermostat Capabilities	New measure request	Kevin Grabner	(1) High	
Ductless Heat Pump - kW units error	Correction of TRM mistake	Logan Van Ert	(1) High	
Residential Air Conditioner Decision Tree	Change to existing measure	Rob Neumann	(1) High	
Ground Source Heat Pump	New measure request	Roger Baker	(1) High	
Update Pump and Fan Hours assumption	Change to existing measure	Sam Dent	(2) Medium	



Lighting

Request Summary	Request Type	Requester Name	Priority	Status
Update LED Savings Parameters for non-standard, non-direction LED projects	Change to existing measure	Amy Buege	(2) Medium	
Error in Lighting IFkWh interaction factors	Correction of TRM mistake	Ben Reinhart	(1) High	
Non-Residential Lighting Operating Hours Data Aggregation	Change to existing measure	David Diebel	(2) Medium	
Occupancy Sensor Lighting Controls - addl Energy Savings Factor	Change to existing measure	Doug Rossin	(2) Medium	
LED Bulbs and Fixtures	Change to existing measure	Doug Rossin	(1) High	
Default Fixture Wattage Reference Table	Question/Clarification	Doug Rossin	(2) Medium	
T-12 Baseline	Question/Clarification	Jim Fay	(2) Medium	
Refine PAR, MR and MRX Base Watt Algorithm (LEDs and CFLs)	Change to existing measure	Jim Fay; Luke Scheidler	(1) High	
WHFd - fix EQuest modeling autosizing issue	Change to existing measure	Sam Dent	(1) High	
Discuss if eQuest models should be used to develop C&I Lighting CFs	Change to existing measure	Sam Dent	(2) Medium	
Review T12 baseline	Change to existing measure	Sam Dent	(1) High	
HP and RW T8 Fixtures	Correction of TRM mistake	Shraddha Mutyal	(2) Medium	

Appliances

Request Summary	Request Type	Requester Name	Priority	Status
Modulating Dryers	New measure request	Hammad Chaudhry	(1) High	
5.1.1 Air Purifier - update ESTAR calculation	Change to existing measure	James Fay	(1) High	
Dehumidifier calculation hours	Correction of TRM mistake	James Fay	(1) High	
Update Deemed Measure Cost Descriptions	Change to existing measure	Jennifer Morris	(1) High	
Few edits to RES CLothes Washer	Change to existing measure	Jim Fay	(2) Medium	

Food Service

Request Summary	Request Type	Requester Name	Priority	Status
Grease trap filter	New measure request	Bridgid Lutz	(3) Low	
Standard update for commercial dishwashers	Change to existing measure	Sam Dent	(2) Medium	
Error in Griddle Algorithm	Correction of TRM mistake	Sam Dent	(1) High	
Update Deemed values from Nicor 2011-2014 plan	Change to existing measure	Shraddha Mutyal	(2) Medium	
Commercial Steam Cooker	Correction of TRM mistake	Shraddha Mutyal	(2) Medium	

Hot Water

Request Summary	Request Type	Requester Name	Priority	Status
4.3.1 Storage Water Heater Tank Sizes	Change to existing measure	David Diebel	(2) Medium	
Update ISR for Efficiency Kits	Change to existing measure	Hammad Chaudhry	(1) High	
Update ISR for aerators, showerheads, CFLs	Change to existing measure	Jane Colby	(1) High	
Update reference to DeOreo Aquacraft evaluation, to final version	Change to existing measure	Maureen Hodgins	(2) Medium	
Error in EPG_elec and EPG_gas values for Low Flow faucet aerators	Correction of TRM mistake	Shraddha Mutyal	(2) Medium	

Consumer Electronics

Request Summary	Request Type	Requester Name	Priority	Status
Advanced Power Strip - Tier 2	New measure request	Rick Bain, Thad Carlson	(1) High	
Optimize measure name to industry-standard term	Correction of TRM mistake	Thad Carlson	(3) Low	
New measure request for Tier 1 commercial Advanced Power Strip	New measure request	Thad Carlson	(2) Medium	



Shell

Request Summary	Request Type	Requester Name	Priority	Status
Revise minimum R-value of residential insulation measures	Change to existing measure	Gabe Klooster	(1) High	

Misc. & Other

Request Summary	Request Type	Requester Name	Priority	Status
		Chelsea Lamar / Doug		
New Measure - Cycling Refrigerated Compressed Air Dryers	New measure request	Rossin	(1) High	
Compressed Air	Question/Clarification	Jim Fay	(2) Medium	
Energy Management System	New measure request	Bridgid Lutz	(2) Medium	
Incorporate IECC2015 Code Changes	Change to existing measure	Travis Hinck	(2) Medium	
Adding non-energy benefits to residential "whole house" measures and multi-family				
measures	Change to existing measure	Chris Neme	(1) High	
Adding non-energy benefits to C&I custom.	Change to existing measure	Phil Mosenthal	(1) High	
Adding non-energy benefits for lighting.	Change to existing measure	Phil Mosenthal	(1) High	

Admin

Request Summary	Request Type	Requester Name	Priority	Status
Missing and Broken Links in TRM Sections	Correction of TRM mistake	David Diebel	(2) Medium	
Standardization of Algorithm Terms	Change to existing measure	Hammad Chaudhry	(1) High	
Update Building Types and Definitions in Glossary to be consistent with Building				
Types used in the IL-TRM Measures	Change to existing measure	Jennifer Morris	(1) High	
Footnote Formatting	Question/Clarification	Jim Fay	(2) Medium	
Clarification of First Year Savings and In-Service Rate in the case of Business Closures	Question/Clarification	Kevin Grabner	(1) High	
Edits to Interactive Effects Section	Question/Clarification	Phil Mosenthal		
Improving TRM documentation, quality, transparency, and replicability	Question/Clarification	SAG Facilitation Team	(1) High	



Original Schedule

Saturday, Aug. 1, 2015	Completed Existing Work Papers due
Thursday, Oct. 1, 2015	Completed New Work Papers due
Friday, Oct. 2, 2015	VEIC Draft of Existing Measures
Friday, Oct. 16, 2015	Stakeholder comments due
Friday, Nov. 20, 2015	VEIC Draft of New Measures and Modeling work
Friday, Dec. 4, 2015	Stakeholder comments due
Friday, Dec. 18, 2015	VEIC Full draft and non-consensus comparison exhibit
Friday, Jan. 8, 2016	Stakeholder comments due
Friday, Jan. 22, 2016	VEIC Almost Final draft and comparison exhibit
Friday, Feb. 5, 2016	Stakeholder comments due
Thursday, Feb. 11, 2016	VEIC Final consensus document
Friday, Feb. 19, 2016	Objections due
Monday, Feb. 29, 2016	ICC Submits report



Revised Schedule

Tuesday, September 22, 2015	Kick off TAC Meeting
Thursday, October 01, 2015	All workpaper deadline
Tuesday, October 06, 2015	TAC Meeting
Tuesday, October 13, 2015	TAC Meeting
Tuesday, October 20, 2015	TAC Meeting
Friday, October 23, 2015	First VEIC Measures Deliverable
Tuesday, October 27, 2015	TAC Meeting
Friday, November 06, 2015	Stakeholder comments due
Tuesday, November 10, 2015	TAC Meeting
Tuesday, November 24, 2015	TAC Meeting
Wednesday, November 25, 2015	Second VEIC Measures Deliverable
Evident December 04, 2045	Challed a later as researched at the
Friday, December 04, 2015	Stakeholder comments due
Tuesday, December 04, 2015	
	TAC Meeting
Tuesday, December 08, 2015	TAC Meeting TAC Meeting
Tuesday, December 08, 2015 Tuesday, December 15, 2015 Friday, December 18, 2015	TAC Meeting TAC Meeting
Tuesday, December 08, 2015 Tuesday, December 15, 2015 Friday, December 18, 2015	TAC Meeting TAC Meeting Full Draft Deliverable Stakeholder comments due
Tuesday, December 08, 2015 Tuesday, December 15, 2015 Friday, December 18, 2015 Friday, January 08, 2016	TAC Meeting TAC Meeting Full Draft Deliverable Stakeholder comments due TAC Meeting
Tuesday, December 08, 2015 Tuesday, December 15, 2015 Friday, December 18, 2015 Friday, January 08, 2016 Tuesday, January 12, 2016 Tuesday, January 19, 2016	TAC Meeting TAC Meeting Full Draft Deliverable Stakeholder comments due TAC Meeting
Tuesday, December 08, 2015 Tuesday, December 15, 2015 Friday, December 18, 2015 Friday, January 08, 2016 Tuesday, January 12, 2016 Tuesday, January 19, 2016	TAC Meeting Full Draft Deliverable Stakeholder comments due TAC Meeting TAC Meeting TAC Meeting Almost Final Draft Delivered
Tuesday, December 08, 2015 Tuesday, December 15, 2015 Friday, December 18, 2015 Friday, January 08, 2016 Tuesday, January 12, 2016 Tuesday, January 19, 2016 Friday, January 22, 2016	TAC Meeting Full Draft Deliverable Stakeholder comments due TAC Meeting TAC Meeting TAC Meeting Almost Final Draft Delivered Stakeholder comments due



Requests for Inclusion of Non-Energy Benefits

- Requests have been submitted for NEBs for:
 - Residential "whole house" measures
 - Multifamily measures
 - C&I measures
 - Lighting measures
- Support needed in workpaper:
 - Measure; level of NEBs; source for value
- TRC subcommittee approved of this approach (7/21mtg.)
- We are looking for confirmation that the TAC will discuss the validity of proposals – will refer any policy discussions back to TRC subcommittee



Process for "Reliability" Review

- Process Improvement project for this year Establish a policy for review and update for "stale" measures
- We will develop a process to:
 - Identify measures to include
 - Decide the appropriate level of review and update
 - Prioritize relative to work on new measures
- Goal have this ready to put in place next year
- Looking for your thoughts what will be most useful

Question for you - who should be involved?



Illinois TRM 2015-16

Additional questions or feedback?



Show Me the Savings: A Statewide TRM as a

Catalyst for Energy Efficiency in Missouri

Prime Applicant: Missouri Department of Economic Development,
Division of Energy (DED-DE)
Principal Investigator: Lewis Mills, Director, DED-DE

Subrecipient: Vermont Energy Investment Corporation

Consistency in Deemed Savings and Framework for EM&V 2.0

Easier Program Design and Evaluation

More Utilities Running Programs Greater Energy Savings

Summary: This project aims to (1) catalyze ratepayer-funded energy efficiency programs in Missouri by creating a common definition of deemed energy savings, (2) cataloguing that in a statewide TRM, and (3) developing a shared vision for how EM&V should change in the future. The DED-DE Project Team proposes to accomplish this through a robust and carefully managed stakeholder engagement process.

Key Idea: A common reference document built with representation and collaboration from Missouri stakeholders will bring consistency among existing and future energy efficiency programs, support the use of ratepayer-funded energy efficiency for EPA 111 (d) compliance, and bring maximum value to ratepayers and the broader Missouri constituency. A framework to help the region improve the credibility of efficiency program results and identify new ways of doing EM&V that use changes in technology and / or data from interval meters, commonly called EM&V 2.0. This project directly supports those aims in Missouri and the Midwest.

Goals:

- Facilitate coordinated program planning across all Missouri utilities, leading to greater energy savings.
- Allow tracking and documentation of savings for purposes of future energy efficiency resource standards and/or 111(d) compliance reporting.

Impacts:

- Missouri will have a statewide common agreement that will facilitate planning, implementation, and evaluation of all costeffective energy efficiency programs.
- The effort will support DOE SEE Action Network's EM&V goals by engaging stakeholders in the region to develop a framework for EM&V 2.0 for the future.



Contact Information

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