



EM&V Committee Meeting

April 10, 2024



Agenda

1. Welcome and Introductions
2. 2023 Q3-Q4 Bi-Annual Snapshots
3. Savings Allocation/Reporting Framework Updates
4. Reconciliation Reporting Draft Template
5. TRM Update Process
6. Next Steps and Public Comment



Savings Allocation/Reporting Framework



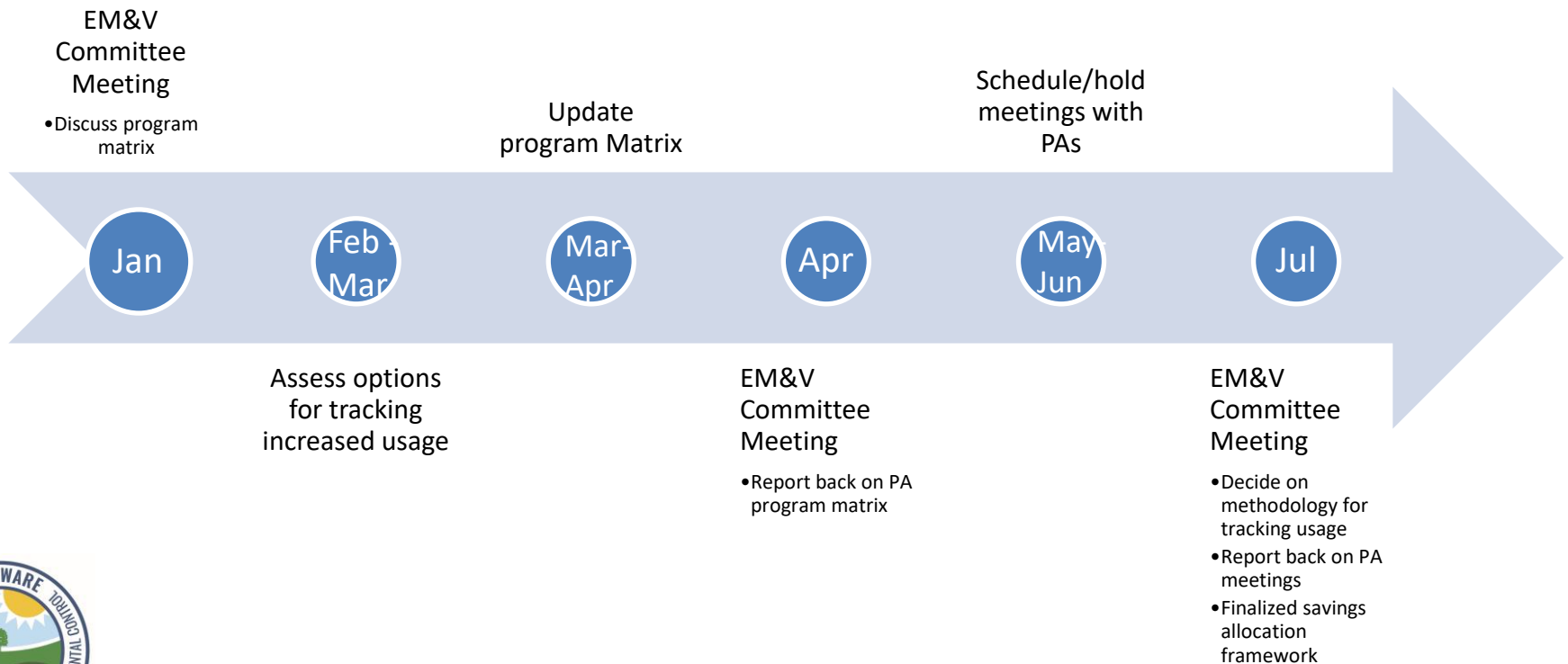
Savings Allocation/Reporting Framework: Path Forward

- Work since January
 - Progress on updating matrix developed in 2020
 - Assessed options for tracking increased usage
- Work to be done
 - Schedule meetings with individual PAs where potential overlap exists and process for future coordination
 - Identify any additional entities running efficiency programs



Revised Timeline

- Goal to have in place in time for 2024 Q1-Q2 bi-annual snapshots



Fuel Switching Overview

- Fuel switching refers to converting from one fuel type or energy source to another (usually electricity) to improve energy efficiency, reduce costs, and/or minimize GHG emissions
 - Also referred to as electrification, beneficial electrification, and strategic electrification
 - For residential/small business building applications, typically involves installation of heat pumps
 - Results in both energy savings from fuel no longer used and increased usage of new fuel



Tracking Impacts from Fuel Switching

- States increasingly looking to fuel switching as key strategy for achieving climate goals
- Presents needs for tracking/reporting:
 - Capture all fossil fuel savings/impacts
 - Separate accounting from electricity efficiency

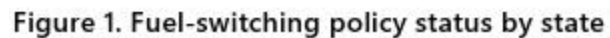


Tracking Impacts from Fuel Switching

- To support these policies, some states reporting on “fuel-neutral” or “all-fuels” savings expressed in British thermal units (Btus)
 - Examples include MA and NY
 - Include parallel or subsidiary goals for electricity, gas, carbon, peak demand, etc.



- Still early in implementation in many cases



[state fuel-switching policies and rules 7-21-22.pdf \(aceee.org\)](https://www.aceee.org/publications/state-fuel-switching-policies-and-rules-7-21-22.pdf)



Deeper Dive: Massachusetts

- Reporting metrics
 - Electric savings - kWh (all impacts)
 - Electric savings – kWh (no fuels switching or demand response)
 - Natural Gas Savings – Therms
 - Delivered Fuel Savings (oil/propane) – MMBtu
 - Total Energy Savings – MMBtu (all fuels)
 - Number of heat pumps



Example: Energy Impacts

- Ductless Heat Pump displacing Oil Heating

	Fuel Impacts	Conversion Factor	Common Savings Unit (MMBtu)
Oil Impacts	60 MMBtu		60.00 MMBtu
Electric Impacts	-3,500 kWh	x 0.003412	-11.94 MMBtu
Total Energy Impacts			48.06 MMBtu



Potential Path for Delaware

- Continue reporting energy savings from energy efficiency measures by fuel (electric, gas other)
- Include and all fuels MMBtu number that represents all fuel impacts
- Report number of heat pumps (as defined i.e. number of heads, buildings, etc.)



Example: Reporting

- Assume a PA installs 100 heat pumps displacing oil and 5,000 MWh through other electric efficiency measures

Program	Annual Electric Savings – kWh (no fuel switching)	Annual Other Fuel Savings – MMBtu (Oil, Propane, etc.)	All Fuel Savings – MMBtu (fuel switching and non-fuel switching)	Number of Heat pump installations
Program A	5,000,000 kWh	6,000 MMBtu	21,865.80 MMBtu	100

Electric Efficiency Savings: $5,000,000 \text{ kWh} * 0.003412 = 17,060.00 \text{ MMBtu}$

Fuel Switching Electric Impacts: $-3,500 \text{ kWh} * 100 * 0.003412 = -1,194.20 \text{ MMBtu}$

Fuel Switching Oil Impacts: $60 \text{ MMBtu} * 100 = 6,000.00 \text{ MMBtu}$



Reconciliation Reporting



Reconciliation Reporting in EM&V Regs

From EM&V regulations:

- Each PA shall submit an Annual Program Reconciliation Report to the EEAC highlighting findings from the past program year.
- The report shall be submitted by the end of the 1st quarter after the close of the program year...It should include the following information:
 - A summary of EM&V activities completed
 - A summary of process evaluation findings, as appropriate by program
 - A summary of impact evaluation findings, as appropriate by program and for the portfolio as a whole
 - Original PA tracked savings, actual evaluated gross and net savings performance, original program goals, evaluated NTG ratios, and evaluation realization rates.
 - For programs not undergoing impact evaluations, tracked and claimed gross and net savings consistent with prior agreements, deemed savings and the Mid-Atlantic TRM, and indicate these are unevaluated results
 - Estimates of ex-post evaluation estimated savings and cost-effectiveness results by program and for the portfolio as a whole



TRM

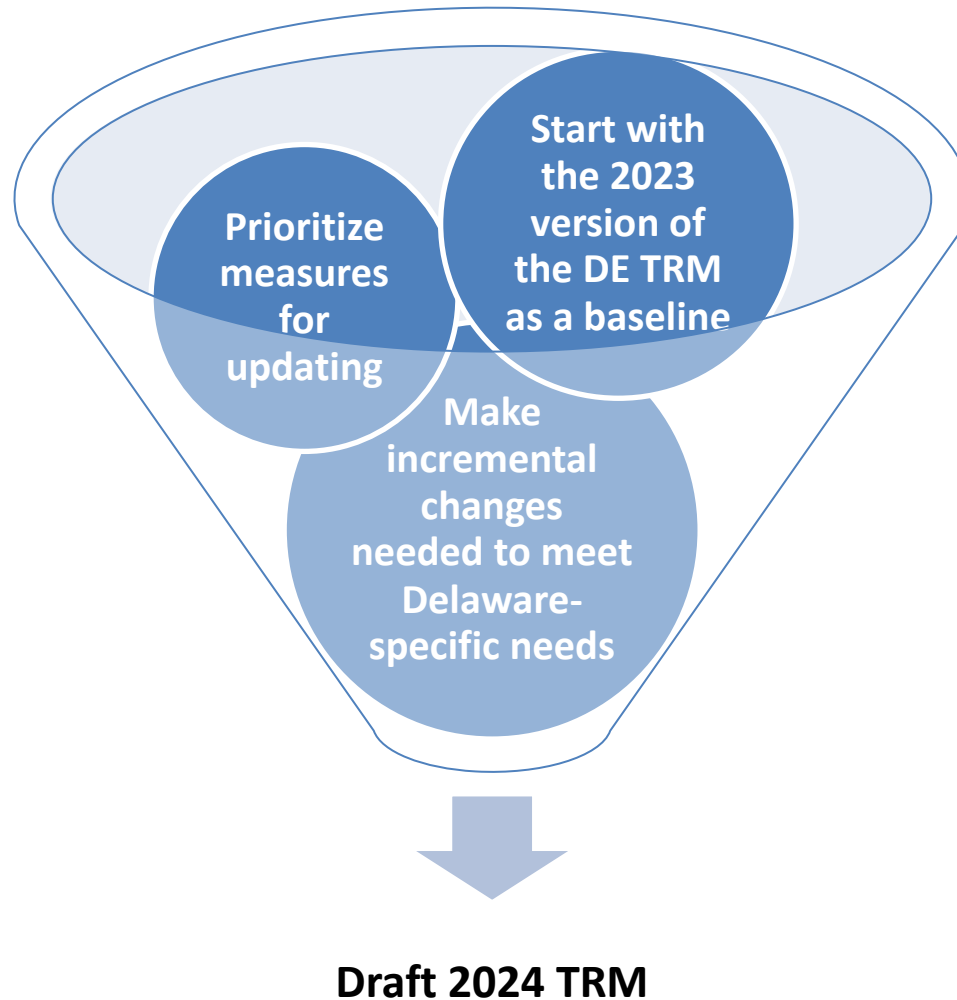


2024 TRM Update Process

- TRMs allow PAs and other stakeholders to calculate deemed efficiency savings from measures in a clear and consistent way
 - Deemed savings are preestablished values for common energy efficiency measures based on reputable data and analysis
- It's important to regularly update the assumptions and measures included
- This presentation outlines a high-level update summary



Overall approach



Task 1: Measure Prioritization/Selection

- Optimal will reach out to PAs to confirm which measures they currently use or plan to use
 - Priority will be given to measures to be implemented by PA's
 - Measures which have fuel substitution savings opportunities



Task 2: Develop Draft TRM Updates

- Optimal will identify and update parameters in the TRM. Examples:
 - Adding additional building types to hours of use appendix
 - Update code requirements as appropriate
 - Includes methodologies for calculating savings from all fuels, including fuel substitution opportunities



Timeline

- Our recommendations on the timeline are as follows:
 - Develop priority measure updates
 - Draft TRM updates for PA measures/code impacts
 - Present TRM update at Q3 EM&V Committee Meeting
 - Finalize TRM updates post-committee meeting to be ready for the 2025 program year.



Updates Overview

- Summary of major updates
 - Update relevant baselines to reflect current DE energy code and 2023 Federal Baseline (i.e., 2018 IECC)
 - Add measures requested by PA's for program support
 - Update measures to include potential “Fuel Switching” measure algorithms, energy savings, etc.
 - E.g. A heat pump measure using an existing natural gas furnace as the baseline instead of a “standard” efficient heat pump baseline.
 - Update references to ENERGY STAR/CEE specifications to reflect current versions



DE Energy Codes

- Current effective energy code in DE is based on 2018 International Energy Conservation Code and the ASHRAE 90.1-2016 Energy Standard for Buildings Except Low Rise Buildings.
- New Federal standards starting 1/1/2023 adopt the 90.1-2019 Energy Standard for Buildings Except Low Rise Buildings.
- DE Legislation will need to vote upon updating the state energy code to a proposed new version (e.g. IECC 2021 & ASHRAE 2019)
 - Expected to occur during 2024 legislative session



Thoughts/Questions?





Thank you

Questions?

