



TRM FRAMEWORK & TRM UPDATES

September 6, 2018

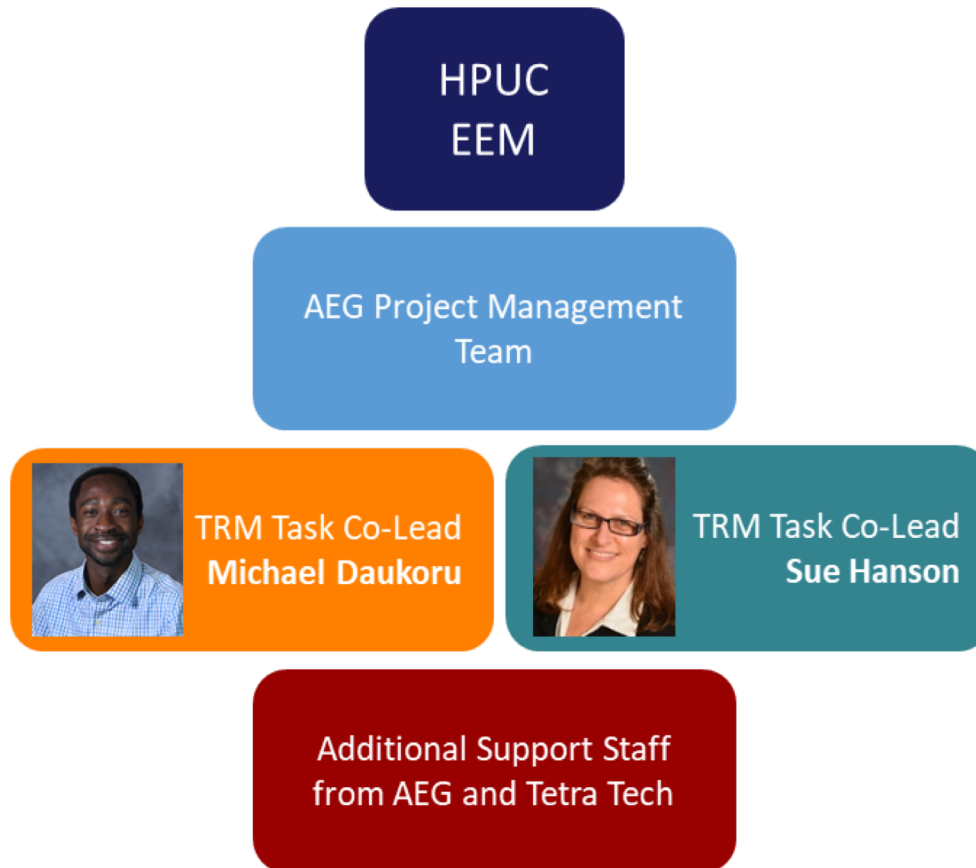
AGENDA

Items being covered:

- Introductions
- TRM Framework
- TRM Updates

INTRODUCTIONS

Your TRM Framework and TRM Update Team



WHAT IS A TRM FRAMEWORK?

It is vital for all parties to have a **shared understanding** of the approaches and methods that will be used to measure program success

TRM Framework indicates **decisions on topics** such as:

- Balancing rigor of TRM content versus effort (and cost) to develop the content
- Quality control mechanisms
- Is documentation sufficient for replication of indicated values, baseline definitions
- The process for TRM revisions
- The TRM approvals process
- TRM format

A TRM is intended to be a **flexible and living document**

TRM FRAMEWORK – KEY ITEMS

Possible key items for the Hawaii TRM Framework include:

- **Overall guidance**
- **Document control**, including responsible/accountable parties, respective stakeholder roles
- **Overview of EM&V terms**
- **Document format** (e.g., whether the TRM Framework should be a separate volume from the TRM itself)
- **Types of information that must be collected** to conduct a comprehensive examination, such as guidance on the minimum set of descriptors and attributes needed to define a TRM measure

TRM FRAMEWORK – KEY ITEMS (CONT.)

Possible key items for the Hawaii TRM Framework include:

- **Recommended frequency for conducting evaluations**, such as guidance and process for measure reviews/updates, including criteria for determination of high-priority measures, definition of new measures, retirement of obsolete measures, and criteria for using verification or other newer measure data for updates
- **Expected levels of estimation rigor** for measure values, algorithms, and attributes, including appropriateness of deemed values vs. partially deemed algorithms vs. custom approaches or actual EM&V
- **Document update schedule/level of effort**
- **Treatment of non-PBFA measures**, e.g. codes & standards activities, DERs, etc.

TRM UPDATES – PURPOSE

Major TRM review/updates needed due to address:

- **Program design changes** (and measure additions/modifications) since last major review in PY2012
- **Market baseline and codes & standards changes**
- **Availability of newer, more applicable data**, especially to update high-priority measures

Process

- **Update TRM by end of CY2018 for PY2019 planning** (resulting in PY2019 TRM)
 - Prioritize existing measures for review/update
 - Review/update high-priority measures
- **Major review/update activities may include** (but are not limited to):
 - Documentation review
 - Review/updates of savings estimation methods, values, and other measure attributes
 - Review/updates of guidance on custom measures
 - Load profile analysis and engineering simulations

TRM UPDATES – POSSIBLE KEY ITEMS



All non-residential lighting (27% of PY16 portfolio)

- Need to revisit/document source of cooling load interactive factors (tracked back to PY15 TRM and they are unsourced)

Non-residential LEDs (~23% of PY16 portfolio)

- Revisit overall methodology for non-linear LED savings
- Revisit baseline incandescent/CFL percent mix based on market research
- Revisit baseline wattages (currently not accounting for EISA, although they do account for 80% CFL assumption for A-19, which could be overly conservative)

Energy Management Controls (2% of PY16 portfolio)

- Deemed savings are unsourced. Revisit methodology and determine best approach for revisions to this measure

VFDs (0.8% of PY16 portfolio) – review entire savings approach

Chillers - review entire savings approach

Solar hot water heater (1.6% of PY16 portfolio)

- Revisit methodology and make consistent with other input assumptions in TRM (e.g., people per house, hot water temperature assumptions, hot water usage assumptions)

Variable Refrigerant Flow (1.5% of PY16 portfolio)

- Need to document sources for deemed savings assumptions and/or consider a revised approach

TRM UPDATES – POSSIBLE KEY ITEMS (CONT.)

- **Measure attributes and factors**
 - Effective useful life (EUL) and persistence factors
 - Net-to-gross (NTG) ratios
 - System loss factors (SLFs)
 - Load shapes and coincidence factors
 - Effective full load hours (EFLH)
 - Interactive effects factors
 - Avoided costs
- **Updates to supplementary content**
 - TRM Glossary
 - Formatting for Table of Contents
 - Other front/back-matter

SCHEDULE

Description	2018					
	Jul	Aug	Sep	Oct	Nov	Dec
Ongoing communications		● →				→
Develop recommended TRM Framework			I		D	F
Assess measures/factors for updating						
Review and update energy/demand impact values for existing measures						
Update/add guidance for custom measures						
Add new measures or retire/sunset measures as needed						
PY2019 TRM Updates					D(M)	F(M)

D = Draft deliverable
 F = Final deliverable
 I = Interviews
 M = Memorandum

TAG TRM Framework Engagement Plan

Asking for feedback on the TRM Framework by end of September

Present a HPUC/EEM TRM Framework and TRM updates to TAG at end of year



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