

# Public Utility Commission of Texas

Third-party Evaluation, Monitoring & Verification  
(EM&V) Contractor for the Texas Utilities' Energy  
Efficiency Portfolios—TRM Approach

Energy Efficiency  
Implementation Project  
October 3, 2017



# Texas TRM Overview

Texas' first TRM was developed in 2013 for Program Year (PY) 2014

- Updated annually for each program year

Transparency in energy efficiency measure savings

- Measure description, baseline & efficient condition
- Eligibility and effective useful lives
- Program tracking and documentation needs

Consistency in savings calculations

- Summer and winter peak demand definitions
- Commercial load management baseline
- Residential demand response calculations

Improved savings estimates

- Residential shell measures
- Commercial HVAC
- Solar PV

Supports new measures

- Deemed standard AC tune-ups, pump off controllers, pool pumps, nonresidential evaporative pre-cooling, residential showerhead thermostatic restrictor valve, residential tub spout, showerhead thermostatic restrictor valve
- M&V protocols for Ground Source Heat Pumps, Compressed Air, Variable Refrigerant Flow (VRF)

# Texas TRM Versions

| TRM Version and Filing Date | Program Year | Summary  |
|-----------------------------|--------------|--|
| TRM v1.0                    | PY2014       | Organized the deemed savings tables, algorithms and calculators into a consistent framework with common sector, end use, and measure naming conventions across all utilities.  |
| TRM v2.0                    | PY2015       | First version with EM&V team recommended changes including a number of updates needed in baselines, efficient conditions to meet national performance standards and other key parameters such as effective useful life (EUL)   |
| TRM v3.0                    | PY2016       | Commercial lighting baseline updates, ENERGY STAR residential appliances and food services equipment, standardized approaches to calculate summer and winter peak savings at the measure level, first TRM to include standardized M&V protocols including for demand response programs and HVAC tune-ups |
| TRM v4.0                    | PY2017       | Major deemed savings updates for residential lighting, solar PV, residential envelope measures, commercial HVAC and roof measures  |
| TRM v5.0                    | PY2018       | Baseline updates in response to the statewide adoption of IECC 2015 codes in 2016. It also includes a number of new deemed measures and M&V protocols  |

# TRM Format

**Volume 1: TRM Overview and User Guide** covers the process for TRM updates and version rollouts, weather zones, peak demand definitions, TRM structure and the format of the TRM measures

**Volume 2: Residential Deemed Measures** contains the measure descriptions and deemed savings estimates and algorithms for measures installed in residential dwellings.

**Volume 3: Nonresidential Deemed Measures** contains the measure descriptions and deemed savings estimates and algorithms for measures installed in nonresidential businesses.

**Volume 4: M&V Protocols** contains protocols to estimate claimed savings for measures that are not good candidates for deemed savings across both sectors

**Volume 5: Implementation Guidance** contains the PUCT's EM&V team recommendations regarding program implementation that may affect claimed savings

# Collaborative TRM Approach

EM&V team reviews TRM for needed updates at least annually (16 TAC §25.181(q) (6) (B)).

## Additional updates

- Utility collaborative group, Electric Utilities Marketing Managers of Texas (EUMMOT)
- Individual utility (ies)
- Energy Efficiency Implementation Project (EEIP)

PUCT staff, PUCT's EM&V team and EUMMOT agree on prioritization

# Deemed Measure Updates

Utilities are the primary party responsible for drafting deemed savings updates

- Facilitates the PUCT's EM&V contractor's role to provide third-party, objective reviews
- Exception is when the recommended change to the deemed savings value is a direct result of EM&V contractor's evaluation research (i.e., desk reviews, on-site M&V, modeling).

# New Deemed Measures

Utilities draft petitions for new deemed savings measures to be filed with the Commission (16 TAC §25.181(I) (4)).

The PUCT and PUCT's EM&V team reviews prior to filing and integrates into the TRM after Commission approval.

# M&V Protocols

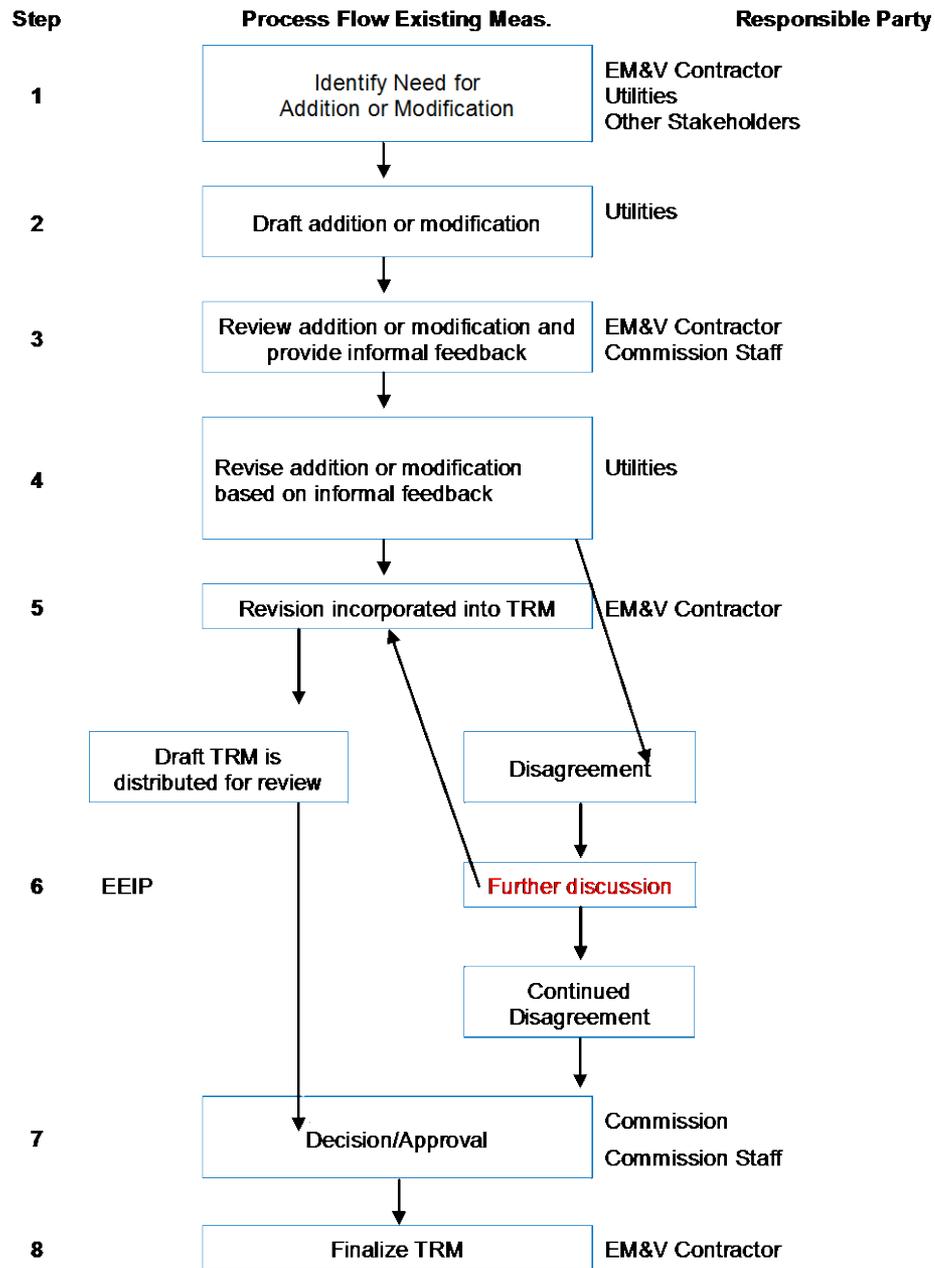
Utilities or their contractors initiate M&V Protocols

new program or technology they plan to offer.

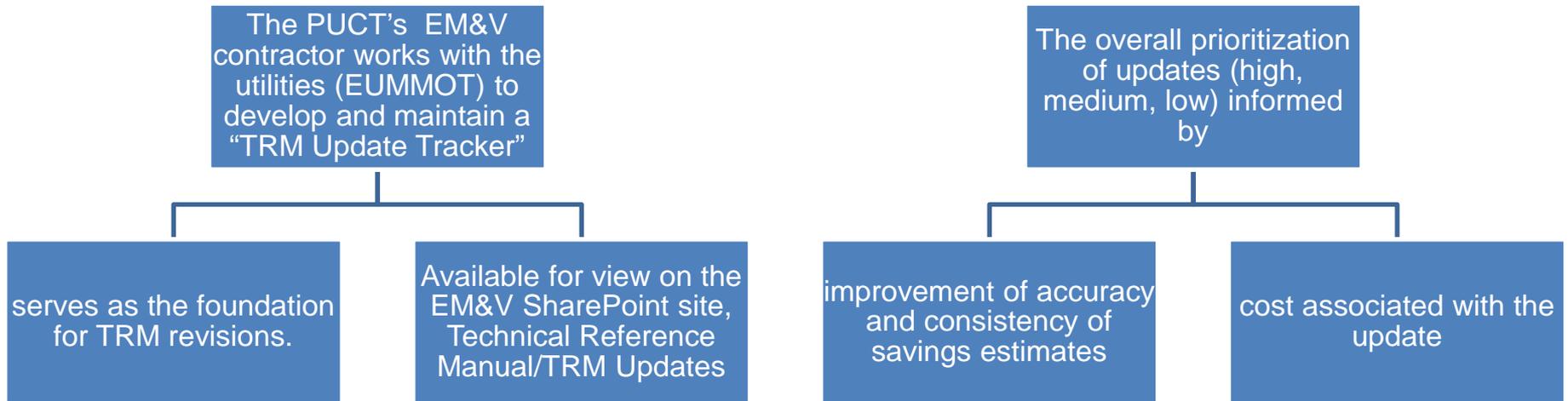
EM&V team integrates M&V Protocol into TRM

after it has been reviewed and agreed upon

collaborative process



# TRM Update Process



Thank you for your time today.

Do you have any additional questions for us?

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