Ex Ante Value Development: Current Practice – Future Vision

ANNETTE BEITEL

APRIL 23, 2015

Agenda

- POU TRM/DEER Review/Subcommittee Update
- Current State of DEER
- Other State TRMs
- Future Vision – Path to Get There

POU TRM Review/DEER Documentation

- 2015 Goal:
  - TF reviews/updates at least eight (8) high impact POU TRM Measures. Review is for technical accuracy/adequate documentation.
  - TF documents at least eight (8) DEER measures.
- Process
  - Identify high impact/high interest measures (PG&E and SCE provided lists).
  - Cal TF staff created list of 19 possible POU Measures and 19 possible IOU measures for review.
  - Cal TF Subcommittee will select final measures for review.
- What is “End Game”?

CPUC Directives: Ex Ante Values/Process

- Collaborative
- Transparent
- Well documented
- Best Available Information
- Strikes a reasonable balance between accuracy and precision; cost and certainty
- Minimizes *Ex Poste* risk

Current State of DEER

- DEER measures: What's included?
  - Currently about 600,000 measure combinations in READI
  - About 50 distinct measures in DEER (Another – approx. 160 non-DEER WP)
    - 70% overlap with workpapers
  - DEER measures about 8% of portfolio (statewide)
    - 54% of deemed savings use DEER values or DEER methodologies (PG&E)
- DEER measures: What's missing?
  - Clothes washers
  - Ag pumping
  - *Majority of portfolio deemed measures*
    - Deemed about 40% of portfolio savings (estimate)(PG&E)
    - 1/3 of savings for Edison custom; rest deemed (estimate)(SCE)
- Cost to maintain/update DEER over past 5 years
  - Multiple millions of dollars?
    - Example: $1.6 million budget PG&E/year/deemed alone – 8 engineers plus $600K WP budget/annum

Current State of DEER

- DEER Structure
  - Documentation for measure parameters not linked to values
  - Support for measure parameters difficult to find
    - Measure parameters not easily reproducible. In some cases not reproducible at all.
  - All measure parameters for particular measure not linked (savings, EUL, IMC, NTG)
    - Measure IDs not always used consistently
    - Not super-obvious which EULs/NTG are for which measures
    - READI not intuitive to use – user-unfriendly
  - DEER includes 56 fields for each measure
    - *Why?*

Current State of DEER

- Update Process/Timing
  - Every few years
    - Timed to program cycle
      - Interim updates based on code changes
    - No established calendar/process
    - Recent updates have focused on small subset of measures
    - DEER values not frozen; updating process chaotic and unpredictable
      - Since January 2015, ten updates so far (change log); two impacted DEER 2015; six 2014; two impacted 2011
      - Utilities/others not notified of changes – need to look at change log
    - Lighting disposition updated 7x in past 1.5 years
  - Limited opportunity to provide input
    - Program cycle updates – take comments before workshop. Other updates: no real opportunity to provide input.
  - Outdated measures often removed rather than updated
    - E.g. Ag and water pumping; clothes washers
    - Staff just removed all IMCs from DEER
  - Utility updates required at significant cost, even if new values don't change by more than 10% and may not be statistically different from old values.
  - Are DEER resources used cost-efficiently (magnitude and allocation)?

Other TRMs

- Cal TF staff researched and gathered other state TRMs for POU TRM review.
  - Researched all 50 states.
  - Over twenty identified.
  - Links will be posted on Cal TF website.
  - Some TRMs used by multiple jurisdictions (Arkansas TRM; Mid-Atlantic TRM; NW RTF).
- Information from other TRMs will be considered during review of POU TRM to help establish “best practices” in form and content and to identify errors.

Other TRMs

- General Observations (Structure)
  - Most hard-copy; three electronic (DEER, Michigan Measures Database, Ameren IL). One both hard copy and electronic (IL).
  - Measure parameters for particular measures all linked.
  - All measure parameters documented.
    - However, quality of sources varies considerably.
  - Measure values transparent and reproducible.
  - In general, high-impact measures included.

Other TRMs

- General Observations (Process)
  - Include over-arching principles for ex ante value development.
  - Clear process/timeline for updating TRM on regular cycle.
  - Stakeholder input on both what needs updated, new measures, and technical work.
  - Outdated measures not dropped, but updated unless no longer relevant.
  - Regulators approve any changes
    - Approval often *pro forma*

Other TRMs

- Guidelines for ex ante value development
  - "Rule of Reason" implicit overarching principle.
- Illustrative examples include:
  - Only include interactive effects **if results change by more than +/- 10%** (NW RTF).
  - Sources must have "**complete and transparent documentation** of methods and sources" . . "easily accessible sources" (NW RTF)
  - "**Contents reflect consensus agreement and best judgment** of project sponsors, managers and consultants on information that was most useful and appropriate to include within the time, resource and information contained in the study." (Mid-Atlantic TRM)
  - The TRM presents **engineering equations for most measures**. This approach is desirable because it conveys information clearly and transparently, and is widely accepted in the industry. Unlike simulation model results, engineering equations also provide flexibility and the opportunity for users to substitute local, specific information for specific input values. " (IL TRM)

23

Future Vision

- Subcommittee Work Product
  - POU TRM Measure Review/DEER Measure Documentation
    - Approximately 8 measures each - some overlap.
  - Ex Ante Value Development Guidelines
    - Including “measure complexity” and “best available information” guidelines.
  - TRM Best Practices
    - Best practices on structure, documentation, measure form, updating process.
    - Will build on prior work – TX TRM “Best Practices” document, Cadmus TRM review for UMP, Schiller/Sedano work from 2011.

Future Vision – End Game?

- Two paths to Comprehensive, Fully-Vetted, Statewide TRM
- Path 1: DEER as base
  - Document in WP template all DEER measures (approx. 80 – 100, depending on how term “measure” is defined).
  - Cal TF subcommittee review documentation/approach for each DEER measure; final review/approval by full TF.
  - Add all non-DEER WP and POU TRM measure not in DEER.
  - Final Step: Seek regulatory approval.
- Path 2: “Best Available Information/Methods” as Base
  - Develop list of statewide measures (DEER, non-DEER WP, POU TRM measures)
  - Identify best approach/data sources for each measure and record in WP template. Include consideration of DEER data/approaches.
  - Cal TF subcommittee review each measure; final review/approval by full TF.

Future Vision – End Game

- Final Step for Paths 1 & 2:
  - Develop Written Update Process that includes:
    - "Bus Stop" for including new EM&V studies/other data.
    - Open stakeholder consensus-building process.
      - NOT equivalent to public comment process.
    - Clear, regular annual update schedule.
  - Regulatory approval of statewide TRM and update process.
  - By end-of-year, Cal TF staff will have recommendations on
    - How long Statewide TRM process would take
      - One year or two?
    - Level of effort
    - Detailed, specific process with interim checkpoints.

Future Vision

Conclusion:

Statewide TRM

can be designed to:

- Be used and useful by POUs/IOUs/others
- Meet all CPUC directives for ex ante value development
- Preserve what is good and valuable in years of work on DEER . . .

At lower cost than current DEER development/update process

“Future Vision” Subcommittee

- Start: May 2015
- End: October/November 2015
- Goal: Recommendation to PAC on plan for creating statewide TRM, including:
  - Process
  - Timing
  - Structure
  - Content
- Plan is that this will be last and final subcommittee for year.
- Volunteers?