PAC Teleconference March 23rd

CALIFORNIA
TECHNICAL FORUM

ANNETTE BEITEL
AYAD AL-SHAIKH
MARCH 23, 2020

Agenda

- **Morning**
  - ❑ Updated Business Plan
  - ❑ Cal TF Q1 Activity Update
  - ❑ Recent Regulatory Engagement – CEC and CPUC

- **Afternoon**
  - ❑ Current Leveraging Opportunities
  - ❑ eTRM and Regulatory IT Ecosystems
  - ❑ Value of Cal TF

- Administer eTRM
  - ❑ Training Ongoing
    - ✘ Utility Staff (IOUs)
    - ✘ POUs
    - ✘ CPUC, CEC and Ex Ante Consultants
    - ✘ LACI and LA Clean Tech Incubator
    - ✘ Implementers
    - ✘ Public Advocates Office
    - ✘ Training will continue
      - ❑ Universal positive feedback!
  - ❑ New Features/Enhancements
    - ✘ On hold until CPUC approves eTRM as "Database of Record"

Business Plan: Goal 2

- Leveraging, Transition and Launch Plans
  - ❑ IOU Meetings
  - ❑ Some POU
  - ❑ CEC
  - ❑ CPUC
- eTRM as "Database of Record"
  - ❑ Definition: CPUC agrees eTRM contains approved values that can be used for planning and claims, and other purposes.
  - ❑ Possible "two systems" in 2021 – DEER and eTRM; DEER becomes archival January 1, 2022
  - ❑ Proposed Regulatory Path: DEER Resolution Process

Business Plan: Goal 3

- Manage and Implement New Measure Development Process
  - Launch May 1
  - Completed
    - Process, forms, review with CEC and CPUC
    - Two trainings for full Cal TF (overview, then details such as forms)
  - Remaining
    - Set up web intake process
    - Finalize committee participants
    - Train committee participants
    - Do more outreach
    - "Test and Learn"
  - Goal: Clear, transparent process; Committee renders judgment on likely viability of measure, not individual IOUs.

Business Plan: Goal 4

- TPP: Framework for improving CET analysis in CA

Topics to include:

- ❑ Fixing current IOU CET tool
- ❑ Recommendation for statewide approach
- ❑ Recommendation for aligning with national approach
- ❑ Focus on resource programs, not low-income or market transformation.

- Rationale: CET as lifeblood of EE programs.
- **ACT**: PAC Affirmation

Business Plan: Goal 4

- Fifteen "White Paper" topics on "Stage II" Issue list
- Cal TF Staff presented overview of each in March 12th Cal TF Meeting
- List reflects votes from March 12th Cal TF Meeting
  - ❑ Emerging Measures
    - ✖ Fuel Substitution Measures
    - ✖ EE + DR Bundled Measures
    - ✖ Bundled EE Measures
  - ❑ White Paper
    - ✖ Policy Guidance for the Classification of a Measure as ET vs Custom vs Deemed
    - ✖ Policy Guidance for Load Shapes

Business Plan: Goal 4

- Ongoing White Papers from 2019 to be completed in 2020 are:
    - Greenhouse Gas Calculation Approach and Data Sources; Recommendations for eTRM
    - Deemed Measure Cost Savings Approaches, Observations and Framework of Recommendations for Future
    - Deemed Measure Savings Calculation Approaches, Observations and Framework of Recommendations for Future
    - Creating Tighter Linkage Between Deemed Savings and EM&V Studies

Business Plan: Goal 5

- Document deemed modeled measures in a consistent way
  - ❑ Cal TF Staff has prepared a draft and will solicit Cal TF input
  - ❑ Will then establish subcommittee to prepare final recommendation for Cal TF and ex ante team review

Business Plan: Goal 6

- Hybrid Measures
  - ☐ Three subcommittee meetings
  - ☐ Subcommittee has developed framework
  - ☐ Initial list of hybrid measures recommended by subcommittee
    - ✖ Voted on first choices
    - ✖ Measure champions assigned
  - ☐ NOTE: At CPUC meeting on custom process review, several issues that parties raised related to hybrid measures

Hybrid Measure Voting
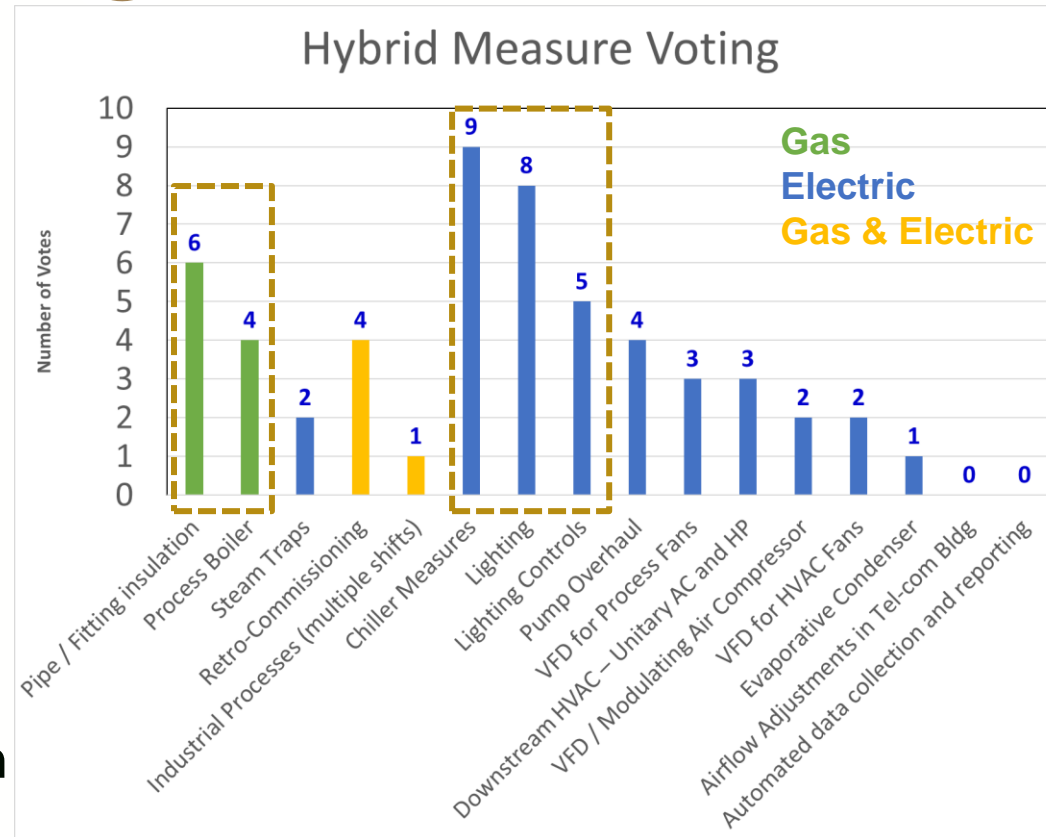
Business Plan: Goal 7

- Maintain Statewide Measure list – New Issues
  - ❑ Staff wants updated.
  - ❑ WP development schedule must be proposed up-front, Staff wants developers to stick to schedule.
  - ❑ Key Benefit of Process: Keeps all PAs and LADWP apprised of what measures other PAs are developing.

Business Plan: Goal 8

- Manage Cal TF and PAC
  - ❑ Switch to teleconference format.
  - ❑ Still high engagement, easier for some to participate.
  - ❑ More participation from ex ante consultants who would otherwise have to travel. Staff is participating.

Regulatory Engagement

- Regular meetings with CEC (likely bi-monthly)
  - ❑ Last meeting March 11, CPUC Staff joined
  - ❑ Discussed areas for possible coordination with CEC, as set forth in Energy Action Plan (2019) – released in December 2019

- Regular meetings with CPUC
  - ❑ eTRM Technical Issues – Frequent since June 2019
  - ❑ eTRM Policy Issues – Reengaging

- **Combine Energy Information** with available building, health, and economic datasets, such as CalEnviroScreen 3.0 and California Building Resilience Against Climate Effects (EAP, p. 94)

  - ❑ eTRM + CEDARs Data

  - ❑ Value in adding other building, health and economic datasets through eTRM project at future date?

  - ❑ Possible Cal TF 2020: Add topic to Stage II "White Paper" list. Form subcommittee if interest.

  - ❑ *Possible CEC 2020:* If Cal TF subcommittee formed on linking additional data sets to eTRM measures and creating targeted measures, CEC participates in subcommittee and helps shape recommendations.

- **Cost-Effectiveness and NEBs**: <mark>The CalTF</mark> can assist in determining values to incorporate into cost-effectiveness tests across any program implementer (EE and Building Decarbonization Co-Benefits) (EAP, p. 94)

  ❑ Add and start to populate NEBs from EM&V studies fields for EE and Building Decarb NEBs; work with CPUC EM&V teams to identify other NEBs studies

  ❑ Possible Cal TF 2020: Two Options

    ❌ Add topic to Stage II "White Paper" list. Form subcommittee if interest OR

    ❌ Add to TPP on improving cost-effectiveness in CA.

  ❑ *Possible CEC 2020:* If Cal TF subcommittee forms subcommittee on improving C/E, would CEC like to join?

- **Potential Study Gaps:** Study the gaps among market, economic, and technical potential through the CalTF, including how the cost-effectiveness tests used by different program administrators affect the gaps (EAP, p. 95)
  - ❑ NOTE: CPUC Staff leading effort to reform potential study approach. May ask Cal TF to look at discrete issues.
  - ❑ Possible Cal TF 2020:
    - ✖ Add any CPUC-directed discrete subtopics related to Potential Study updating to Stage II "White Paper" list. Form subcommittee if interest.
    - ✖ Cal TF Staff will notify CEC staff if any issues related to potential study move forward.
  - ❑ *Possible CEC 2020*: Participation in subcommittee if one moves forward.

Other Possible Coordination - 2020

- ❑ **Improve integration of EM&V, eTRM, CEDARS**
  - ✖ Cal TF 2020 Plan: Draft Memo, Subcommittee, Final Memo
  - ✖ *Possible CEC 2020*: Would CEC Staff like to join subcommittee?

- ❑ **Further develop eTRM so it can be used to perform sensitivity analysis of changes to EE portfolios**
  - ✖ Cal TF 2021 Proposed Plan: (Proposed Enhancement) – connect eTRM to functional CET that allows for rapid CET analysis.
  - ✖ Cal TF 2020: Expand measure types to other demand-side measures
  - ✖ *Possible CEC 2020*: Would CEC Staff like to help define new measure types and also help spec out CET enhancement?

Other Possible Coordination - 2020

- **Standardize and Potentially Track EE savings from market-based activities**
  - Cal TF 2021 Proposed Plan: (Proposed Enhancement) –Link CEDARs claims data to eTRM. Will allow tracking of savings from individual or groups of measures in utility portfolios over time.
  - *Possible CEC 2020*:
    - Could CEC use eTRM to standardize savings from market-based activities?
    - Could CEC link claimed savings from market-based activities to measures in eTRM to track growth over time (analogous tracking by linking CEDARs claims data to eTRM measures)

- **Hourly Load Profiles**: Includes identifying universe of load profiles that currently are used, use cases, and recommendation for standardizing and updating/improving for multiple use cases (CEC, CPUC, other)
  - Cal TF 2020 Plan (subject to selection by Cal TF): Draft Memo, Subcommittee, Final Memo
  - *Possible CEC 2020*: Would CEC Staff like to join subcommittee?

Other Possible Coordination - 2020

- **==Tracking EPIC Projects and ET Projects Through eTRM== (Suggestion from CPUC Staff)**
  - Cal TF Staff 2020:
    - Add a Flag if measure originally came from ET or EPIC programs
    - Add a Field that states the year that measure was introduced
    - CPUC Staff Sending Cal TF the ET measures and Data Originated – Currently in eTRM

  ## Approach
    - Connect eTRM measure with claims data and watch savings increase.
    - Wants to be able to compare 1st year savings between measures (not a fair comparison to match year-2 to year-4, for example)
    - eTRM Opportunity: Move more measures into the portfolio - higher visibility through eTRM early notification and Cal TF Measure screening process will mean faster adoption
    - CPUC in process of identifying all ET data back to 2008
    - *Possible CEC 2020*: Would CEC like to track EPIC projects (historic or future) that have been transferred to utility portfolios through eTRM?

CEC Engagement in Cal TF (2020)

- Participate in Cal TF Meetings

- Support white paper topics, which may include:
  - ❑ Subcommittee on Load Shape guidelines
  - ❑ Provide input to GHG White Paper
  - ❑ Provide input on White Paper re: Integration of EM&V and Deemed Measures
  - ❑ Input on Emerging Measures: Building electrification (bundled measures or fuel substitution)

- Participation in New Measure Screening Committee

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The CEC recommends CalTF play a leading role in assessing technical energy efficiency recommendations moving forward.

Energy Action Plan (2019)

CPUC: Key Technical Questions

- Can eTRM replace functions in DEER? Is eTRM complete?

- Are values in eTRM correct? (CPUC-approved values)

- How do we know values in eTRM won't be changed?

- What will be requirements of the CPUC IT Department?

- CPUC "wants and needs" will be met

Policy Questions

- Who will own eTRM, now and in the future?

- Outcome if one owner now longer wants to own and/or fund?

- What will be the governance structure?

- How will eTRM be funded (maintenance and enhancements?)

- If CPUC does not own eTRM, how can it be sure its wants and needs get met?

- If CPUC does not own eTRM, can it still control values/information contained in eTRM?

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Current Leveraging Opportunities

Opportunities/Expected Benefits of Other Leveraging

- **ET – Faster Track to Portfolio**
  - Tracking ET into portfolio (from CPUC Staff)
  - Clarity on data needs for ET developer, faster track to programs, early visibility to market (from ETCC lead)
- **Hybrid Measures – Faster, Less Expensive, Less Risk, More Certainty**
  - New measure category in CA; common elsewhere
  - Streamlined measures Data congruence
  - Faster track to deemed (where appropriate)
- **Custom Measures – Standardization to Increase Certainty, Speed Review, Reduce Costs and Time**
  - Standardize nomenclature
  - Standardize data format
  - Common tools and rules in one place
  - Consider returning to "custom workpaper" concept
  - Seek to standardize attribution inquiry
  - Track time start to finish; identify bottlenecks and barriers to speedy review and processing of custom projects
- **New Data Analytics – Identify High-Value (High C/E Measures); New Measure Opportunities**
  - *Identify High-Value Measure Opportunities for Implementers:* Identify more/better opportunities for customers and cost-effective measures by including permutation-level CET analysis in eTRM.
  - *Monitor Results*: Combine permutation-level CET results with claims data to determine whether implementers are installing in high-value locations/customers.
  - *Identify New Measure Opportunities*: Some measures not cost-effective statewide but are if offered to select customers, regions and/or under certain defined circumstances.
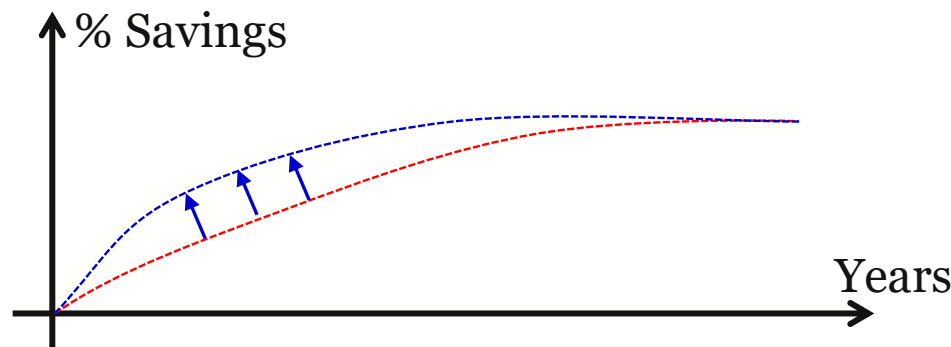
Tracking ET into Portfolio

- ## CPUC Outreach re: ET and eTRM (Sasha Merigan)
  - ❏ CPUC Question:
    - ✕ Can eTRM be used to efficiently track ET projects that are picked up by portfolio (past and future)
    - ✕ Can eTRM drive and track EPIC projects into the portfolios
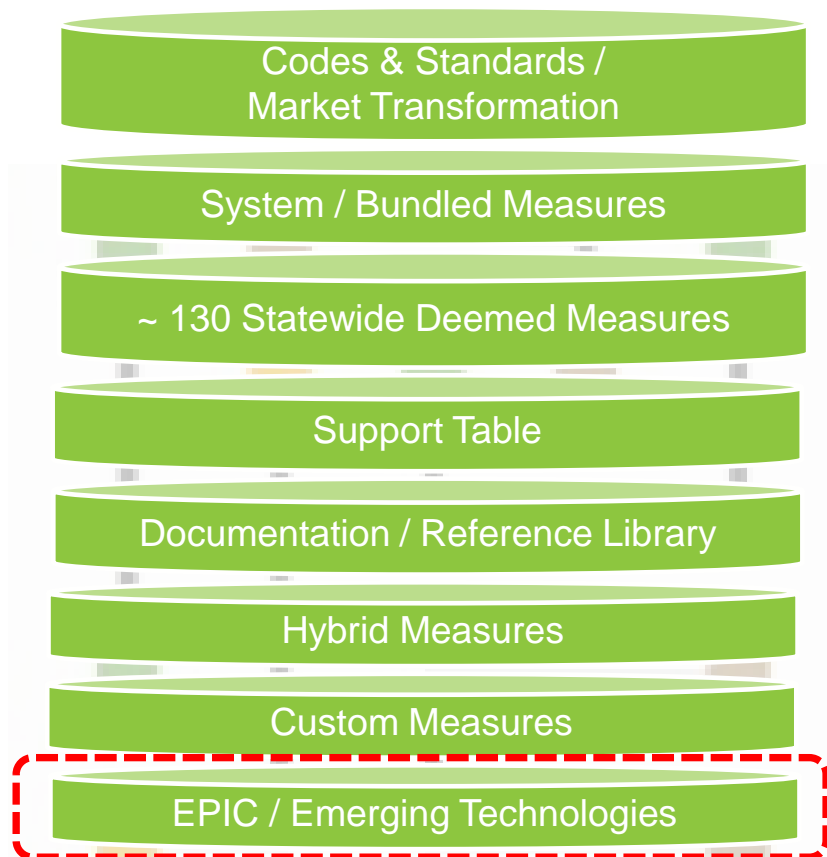

  - ❏ eTRM can start solving this need

Codes & Standards / Market Transformation

System / Bundled Measures

~ 130 Statewide Deemed Measures

Support Table

Documentation / Reference Library

Hybrid Measures

Custom Measures

EPIC / Emerging Technologies

Common Data Spec

- eTRM can facilitate early visibility/market adoption of ET and EPIC projects
  - Common data format
  - Common reference library
  - Cal TF process to get the word out and get early and ongoing market feedback to rapidly and efficiently get emerging technologies and processes into market and through "Valley of Death"

eTRM: Connection with Custom and Hybrid

- # For Hybrid

  - ❏ All hybrid measures in eTRM

  - ❏ Path to getting more measures into portfolio over time.

  - ❏ CPUC "Custom Project Stakeholder Engagement" underway. Interest expressed for:

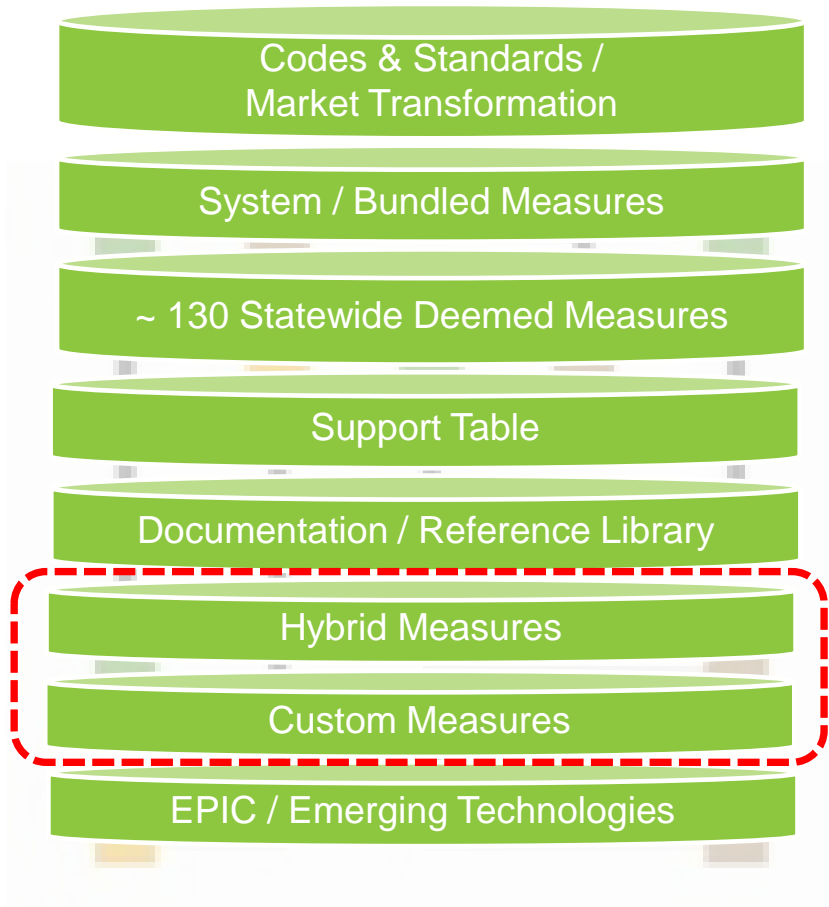|	
A	Establish a more Proactive Collaboration with CPUC staff
B	Improve communication on projects
C	create a dispute resolution process
D	Establishing and committing to a Fixed Timeframe for PA's Due Diligence Review (DDR)
E	Developing SW Guidance documents to improve consistency and usability (e.g., Simplified tools and calculators)
F	Creating Centralized Archives to improve information sharing
G	Project Feasibility Kick-off Meetings
H	Technical Training (e.g., NMEC) and Workshops
I	General Policy Training
J	Implementation of Tiered-POE
K	Simplified processes for smaller projects
L	Development of 'hybrid-path' for projects that fall between custom and deemed

- # For Custom

  - ❏ Further discussion on benefits or/approach to integrating other custom types of custom projects, or custom project elements, into eTRM.

Future eTRM Vision
Integrated Measure Journeys

Codes & Standards / Market Transformation

System / Bundled Measures

~ 130 Statewide Deemed Measures

Support Table

Documentation / Reference Library

Hybrid Measures

Custom Measures

EPIC / Emerging Technologies

Common Data Spec

- Visibility and Transparency throughout the measure journey

- Standardization of approaches; constrained parameters

- Common calculation tools

- Standardized nomenclature and descriptions

- Customer-specific information

- Make a class of measures detailed but fast (hybrid)

3/23/2020

New Data Analytics

- eTRM linked to CET
    - ❑ Which permutations most cost-effective

- eTRM linked to CEDARS
    - ❑ Are measures getting installed in most cost-effective locations/customers?
    - ❑ Measure installation gaps?
    - ❑ Better opportunities for claims validation / reduce claims rejection
    - ❑ Better link to EM&V so planning can be focused on measures and permutations that are most cost-effective

- eTRM permutation results overlaid on CalEnviroScreen 3.0
    - ❑ Identify most cost-effective measure bundles for disadvantaged communities.

eTRM Integration with CPUC Systems

eTRM Supplies:

- Permutation level data to allow claims validation not possible before

eTRM Replaces:

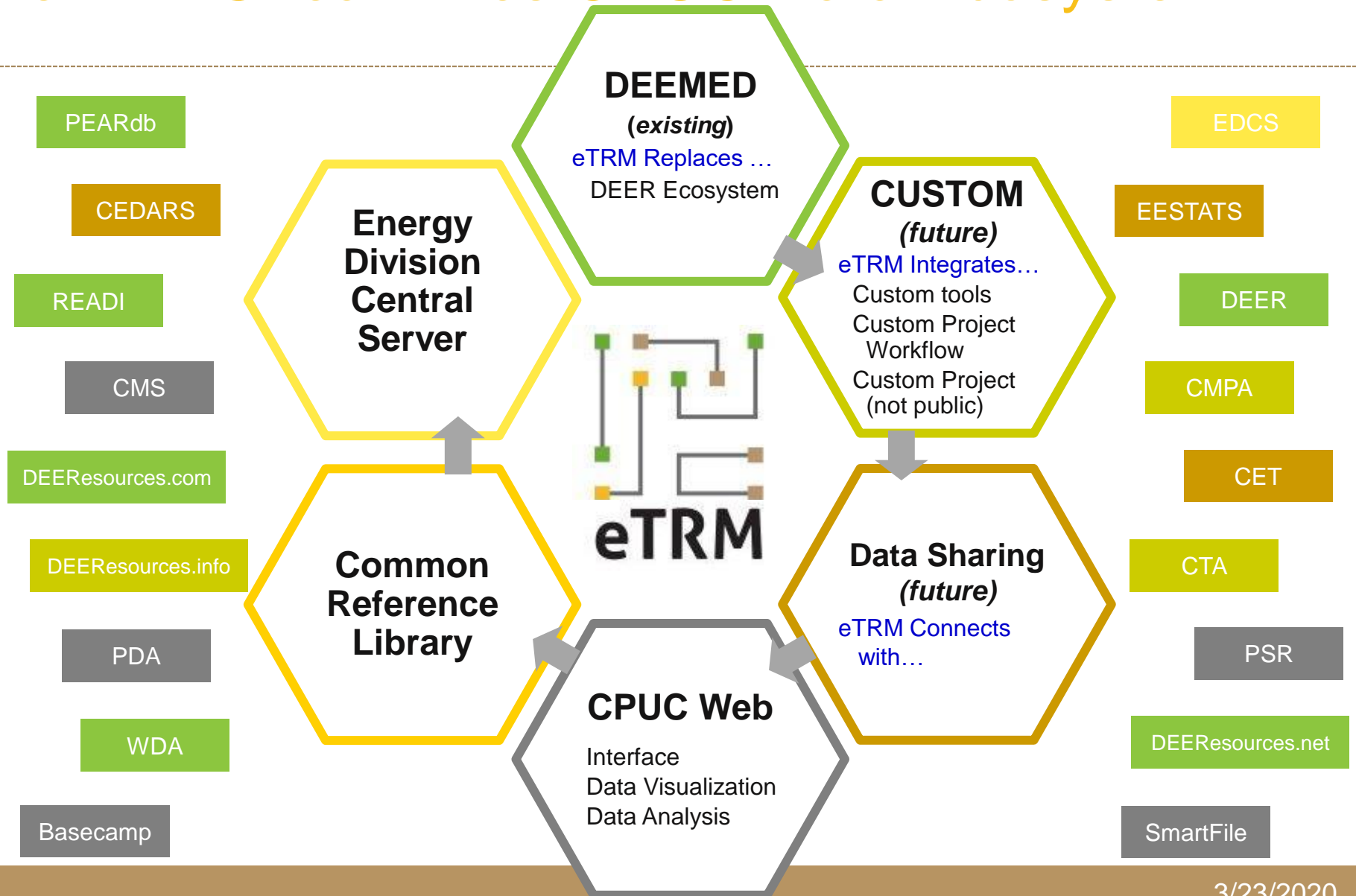- DEEResources.net
- DEEResources.info
- PEARdb
- DEER/READI
- WPA
- WDA

eTRM API:

- Supplies data to and receives cost effectiveness analysis from

eTRM Streamlines CPUC Data Ecosystem

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PEARdb

CEDARS

READI

CMS

DEEResources.com

DEEResources.info

PDA

WDA

Basecamp

Energy Division Central Server

DEEMED (*existing*)
eTRM Replaces …
DEER Ecosystem

CUSTOM (*future*)
eTRM Integrates…
Custom tools
Custom Project Workflow
Custom Project (not public)

Common Reference Library

eTRM

CPUC Web
Interface
Data Visualization
Data Analysis

Data Sharing (*future*)
eTRM Connects with…

EDCS

EESTATS

DEER

CMPA

CET

CTA

PSR

DEEResources.net

SmartFile

3/23/2020

eTRM Streamlines CEC Data Ecosystem

- **CEC Staff Commented that the eTRM Will Help CEC *Understand* and Standardize Multiple Data Streams**
  - CEC receives multiple, non-standardized data streams that CEC uses for several purposes from IOU/POU and "Beyond Utility" Programs:
    - Biennial statewide electricity and natural gas demand forecast
    - Tracking progress towards SB 350 EE doubling targets
    - Energy Efficiency Action Plan
    - Additional Achievable Energy Efficiency (AAEE)

- **Other eTRM leveraging opportunities identified**
  - Track EPIC projects into portfolios

Value of Cal TF

Cal TF (PAC and Cal TF) and Partner-Wide Survey

- Past Cal TF value

- Future Cal TF value

- For PAC

  - Process questions – solicit feedback on PAC process/communications

Goal: Make sure we are maximizing value of Cal TF process and eTRM and associated tools from perspective of multiple stakeholders