

# Cal TF – PAC Meeting



**APRIL 28, 2023**  
**LOS ANGELES**

# Agenda

[PAC Meeting Agenda](#)

[PAC Meeting Materials](#)

Time	Topic	Discussion Lead
10:00 – 10:15	Introductions and Agenda Review	Annette Beitel
10:15 – 10:45	2023 Q1 Business Plan Update <i>ACT: Input on info/metrics for progress updates</i>	Ayad Al-Shaikh
10:45 – 11:00	TF Membership Update and Recommendations <i>ACT: Discuss/affirm TF Members</i>	Arlis Reynolds
11:00 – 11:15	Break	-
11:15 – 12:15	Metric 8A Cal TF 5-year Roadmap <i>ACT: Input on roadmap priorities</i>	Annette Beitel
12:15 – 1:00	Lunch	-
1:00 – 1:45	Cal TF Custom Initiative <i>ACT: Discuss Custom Initiative; Affirm TPP Topic</i>	Arlis Reynolds
1:45 – 2:00	Break	-
2:00 – 2:45	Data Charrette <i>ACT: Input on data challenges and opportunities that can be addressed at the charette</i>	Annette Beitel
2:45 – 3:00	Closing and Next Steps	Annette Beitel

# New PAC Members

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**David Ritchey**  
**Southern California Edison**  
Principal Manager, Energy Services  
Los Angeles, CA



**TBD**  
**California Energy Commission**

# 2023 Q1 Business Plan Progress Report



**AYAD AL-SHAIKH**

## Metric 8D

Quarterly Business Plan  
Progress Reports

- [2023 Q1 Business Plan Progress Update](#)

# TF Membership Update



**ARLIS REYNOLDS**

PAC  
Affirmation

# TF Membership Update

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## Membership Status

- Member turnover due to retirement & changing job functions
- Missing representation from major 3P implementers
- Limited participation by POU's, REN, CCA
- Growing need in strategic areas (data management, custom initiative)
- Growing interest in TF and membership recommendations

## Recommendation

- Mini-recruitment to add new members
  - Solicit member recommendations
  - Collect resumes and assess quals
  - Send memo to PAC for affirmation
- Focus areas
  - Custom Measures and Projects
  - EE Data Management
  - REN/CCA Programs
  - POU Programs
  - Include major implementation firms
  - Review breadth of representation/diversity

Requires PAC Affirmation

# Cal TF 5-Year Roadmap



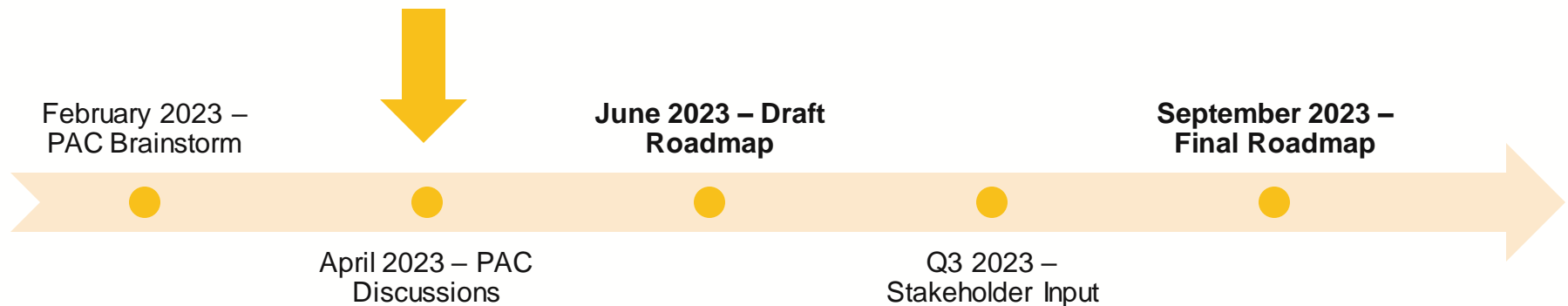
**ANNETTE BEITEL**



# 5-year Roadmap

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- BP Metric 8A. Develop 5-year Roadmap that identifies core Cal TF/eTRM activities, new strategic initiatives, and desired success factors. Roadmap will identify coordination needs and leveraging opportunities to achieve desired outcomes.



## 8A Cal TF 5-year Roadmap

### Agenda



- Previous Discussions
  - Pac/TF/stakeholder input on goals, outcomes, and activities
  - Cal TF Staff organized into groups
  - TF review and voting
- Today
  - Review Baseload Activities and Strategic Initiatives
  - Roadmap timing and sequencing (spreadsheet exercise)
- Next Steps
  - Draft Roadmap

# Roadmap Goals (Draft)

## Baseload Activities

- eTRM Management and Development
- Measure Management
- Technical Policy Analysis & Recommendations
- Stakeholder Engagement

## Strategic Initiatives

- Data Integration & Analytics
- Custom Initiative
- New Measure Development and Updates
- “All Source” eTRM
- eTRM Extension

# Baseload Activities (Draft)

- **eTRM Management and Development**
  - Collect and review additional features from Stakeholders on an ongoing basis
  - Implement enhancements within the eTRM
  - Conduct eTRM training
- **Measure Management**
  - Respond to changing codes and standards, regulatory and market changes on an ongoing basis
  - Coordinate, conduct, and organize all measure management and updates by Cal TF Staff
  - Accelerate measure uptake (training, visibility, videos)
- **Technical Policy Analysis & Recommendations**
  - Complete at least one TPP annually
  - Complete at least one White Paper annually
- **Stakeholder Engagement**
  - Expand participation with and by POU, RENs, and CCAs
  - Identify and engage DAC representatives
  - Engage with additional state agencies beyond CEC and CPUC such as CARB
  - Engage with other organizations/non-profits doing similar work such as the Climate Registry and Market Transformation

# Strategic Initiatives (Draft)

## Data Integration & Analytics

1. Centralize, link, standardize EE data (“one stop shop” for data)
2. Streamline data flow and reporting to minimize manual data management and improve data quality throughout measure journey
3. Integrate non-EE data (e.g., solar maps, EnviroScreen/DAC, census data, market data) to enable data analytics
4. Incorporate potential data at measure level to track progress and identify shortfalls
5. Integrate cost effectiveness

# Strategic Initiatives (Draft)

## Custom Initiative

1. Centralize/organize regulatory guidance
2. Identify, consolidate, and develop statewide custom measures and tools
3. Identify and develop hybrid measures
4. Add custom measures and tools in the eTRM
5. Develop/review custom projects in eTRM
6. Perform technical project review/QA

# Strategic Initiatives (Draft)

## **New Measure Development and Updates**

1. Develop and add decarbonization/CO2/GHG measures
2. Develop and add Low Income measures
3. Identify and engage with new entities and organizations to increase pool and accelerate development of new measures
4. Continue to streamline development of new measures
5. Streamline feedback to innovators (to support measure development)
6. Facilitate, oversee, and develop new measures and measure updates by Cal TF Staff
7. Submit new measures and measure updates by Cal TF Staff directly to regulatory agencies

# Strategic Initiatives (Draft)

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## **“All Source” eTRM**

1. All behind-the-meter resources (e.g., DR, solar, battery, EV, Low Income)
2. Analytic tools and mobile platform to support trade allies and customers in optimize IDSM choices
3. Extend to NMEC measures



# Strategic Initiatives (Draft)

## eTRM Extension

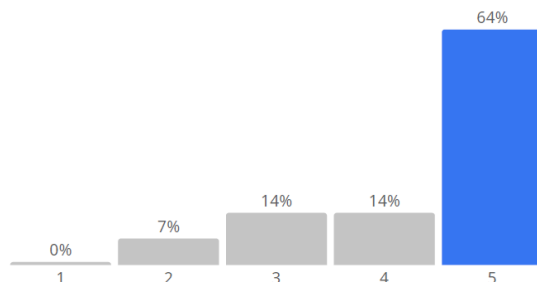
1. Expand measure data (e.g., GHG, water savings) for eTRM measures
2. Develop and populate placeholder measures for planning/forecasting ("representative measures")
3. Tools for different stakeholders and use cases (POUs, trade allies, customers, local gov, etc.):
4. Incorporate hourly and locational impacts and dynamic loadshapes for eTRM Measures
5. Integrate Energy Plus
6. Foster Regional licensing/leveraging of eTRM tool and data

# TF Voting (Examples)

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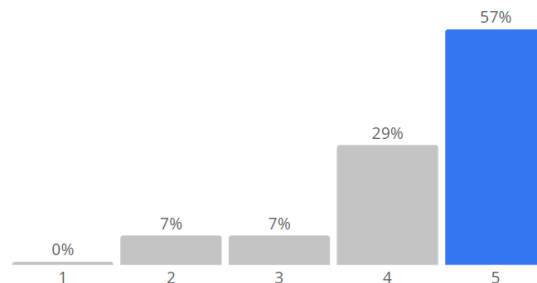
## Centralize, link, standardize EE data ("one stop shop" for data)

Score: 4.4



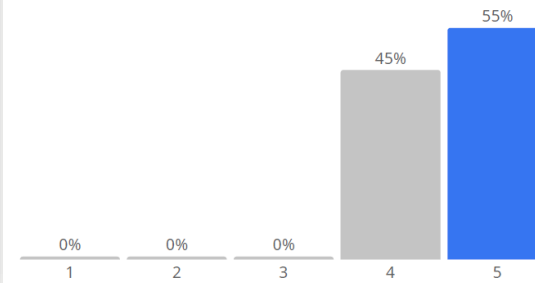
## Statewide custom measures & tools

Score: 4.4



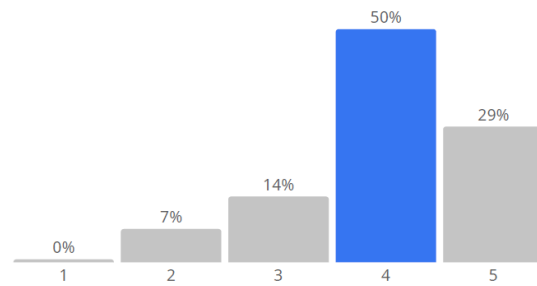
## Streamline development and approval of new measures

Score: 4.5



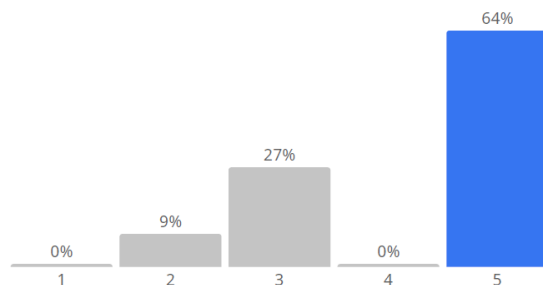
## Streamlined data flow to minimize manual data management and duplicative data

Score: 4.0



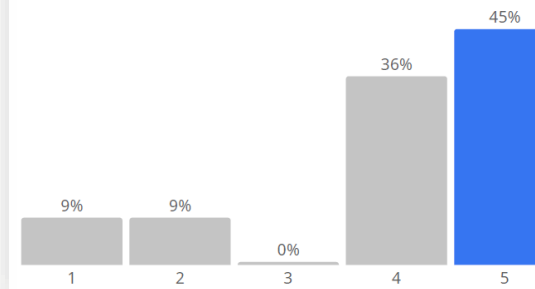
## Decarbonization/CO2/GHG measures

Score: 4.2



## Submit new measures and measure updates directly to regulatory agencies

Score: 4.0



# Roadmap Development

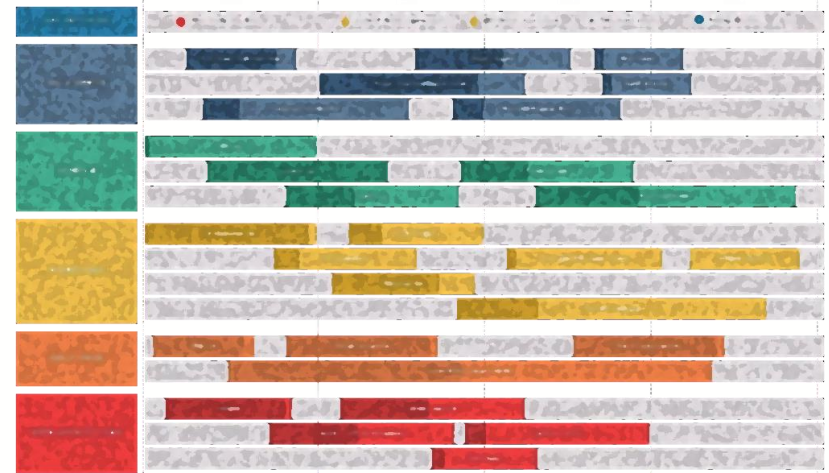
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Brainstorms, grouping, voting



Goals      Tactics / Success Factors



**Cal TF Roadmap Workbook**

# Roadmap Next Steps

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## Draft Cal TF Roadmap

- Vision + Mission
- Cal TF Role
- Key Metrics
- Roadmap Visual
- Supplementary Text
- Budget

February 2023 –  
PAC Brainstorm

April 2023 – PAC  
Discussions

June 2023 – Draft  
Roadmap

Q3 2023 –  
Stakeholder Input

September 2023 –  
Final Roadmap

# LUNCH BREAK

# Cal TF Custom Initiative



**ARLIS REYNOLDS**

PAC  
Affirmation

## BP Goal 5

Cal TF Custom Initiative

- Custom 5X Workplan
- Key Stakeholder Support
- Proposed TPP Topic

# 5X: Goals/Objectives

Task	Goals, Metrics, and Objectives
5A	<ul style="list-style-type: none"><li>▪ Improve <b>stakeholder awareness, access, and understanding</b> of custom regulatory guidance and policy</li><li>▪ Improve ability for new stakeholders to understand custom policies and processes</li><li>▪ Establish a <b>statewide Measure ID structure</b> for custom measures</li><li>▪ Identify and prioritize custom measures that are good candidates for <b>standard methods and tools</b> and/or hybrid methods</li><li>▪ Identify and make accessible <b>tools to support custom measure development</b></li><li>▪ Prioritize identified custom improvement recommendations</li></ul>
5B	<ul style="list-style-type: none"><li>▪ Establish high-level scope, <b>priorities, and schedule for future Cal TF activities</b> to support custom</li><li>▪ Develop framework for Custom Initiative tactics in future Business Plans</li></ul>
5C	<ul style="list-style-type: none"><li>▪ <b>Develop statewide standard methods and tools</b> that clarify requirements, improve consistency, and reduce time and costs to develop custom measures</li><li>▪ Establish a <b>process for development, review, updates, approval</b> of statewide custom methods and tools</li></ul>
5D	<ul style="list-style-type: none"><li>▪ Develop user-friendly eTRM documentation to support any eTRM development for Custom</li></ul>
5E	<ul style="list-style-type: none"><li>▪ Develop functional specifications to <b>host custom measures and resources</b> in the eTRM</li><li>▪ Implement custom measures and resources in the eTRM</li><li>▪ Develop a stakeholder-supported <b>vision for how the eTRM can support the custom portfolio</b></li><li>▪ Define eTRM Custom Modules to support the eTRM Custom vision</li></ul>



# 5X: Scope

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- 5A. Gather, Organize, and Prioritize existing custom guidelines, tools, and resources being used by POU, IOUs, and Implementers
- 5B. Finalize High-Level Custom Roadmap by 2023 Q2
- 5C. Develop and Implement SW Methods for at least three Custom Measures
- 5D. Update eTRM Documentation
- 5E. Implement select POU and statewide TRM tools/calculators in the eTRM
- ISP White Paper

# 5A: Gather/Organize/Prioritize

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## 5A-1: Custom Regulatory Summary Review

- **Objective**
  - Summarize the sources and scope of existing custom regulatory guidance
  - Develop recommendations to improve access and clarity for all stakeholders
- **Approach**
  - Gather and summarize existing resources
    - ✱ *Need support from CPUC, IOUs to identify/access*
  - Characterize resources (e.g., accessibility, update status, update frequency, clarity, and usefulness)
  - Identify potential overlap, conflicts
  - Develop, prioritize recommendations
- **Deliverables**
  - Summary of custom regulatory resources, policy, and guidance resources
  - Proposal to improve approach to summarizing and providing clear guidance on custom projects

## 5A-2: Statewide Custom Measure ID

- **Objective**
  - Establish a Statewide Measure ID structure for custom measures
- **Approach**
  - Review existing PA-specific measure codes
  - Model deemed measure code structure
  - Map existing PAC codes to proposed new code structure
- **Deliverables**
  - Proposed SW Custom Measure ID Convention for Custom Measures
  - Table to map existing PA-specific measure codes to proposed SW Measure ID



# 5A: Gather/Organize/Prioritize

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## 5A-3: List of Measures for Statewide Methods

- **Objective**
  - Identify and prioritize custom measures for statewide standardization and hybrid methods
- **Approach**
  - Identify common custom measures
    - ✦ Custom program activity and claims data
    - ✦ Existing methods guidance documents
    - ✦ Stakeholder input on potential new custom measures
  - Identify “hybrid” opportunities
  - Prioritize measures for statewide development
- **Deliverables**
  - List of custom measures recommended for SW standard and/or hybrid methods

## 5A-4: List of Custom Tools

- **Objective**
  - Identify and characterize custom tools that stakeholders may use to develop custom projects
- **Approach**
  - Identify and gather existing tools
    - ✦ *Need support from CPUC, IOUs, implementers to identify/access*
  - Characterize tools (e.g., use, status)
  - Identify and prioritize needs to improve the library of useful tools
- **Deliverables**
  - List of characterized custom tools used in past five years.
  - Public library of custom tools with summary information
  - Prioritized list of needs to update, seek approval, and/or develop new custom tools.



# 5B: Custom Roadmap

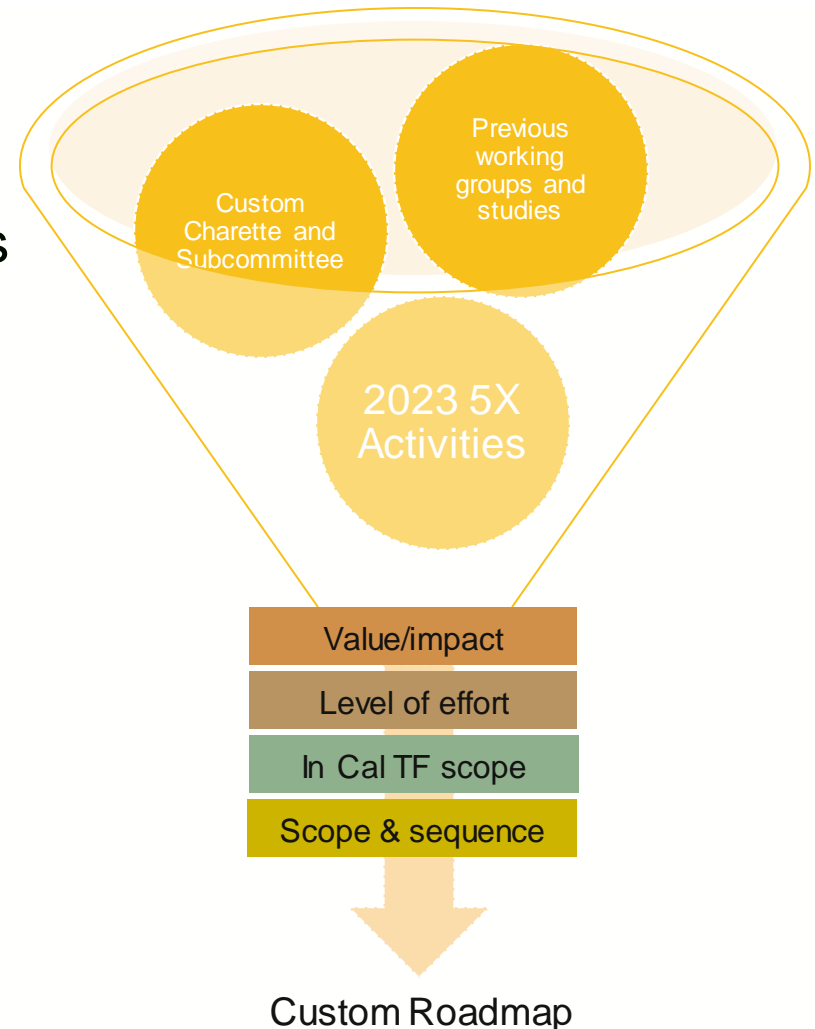
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- **Objectives**

- ❑ High-level scope, priorities, and schedule for future Cal TF activities
- ❑ Framework for Custom Initiative tactics in the annual Business Plan

- **Deliverables**

- ❑ Summary of characterized custom improvement goals and activities
- ❑ Draft and Final Custom Roadmap
  - ✦ Requires PAC approval



# 5C: Develop/Implement SW Methods

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## 5C-1: Statewide Custom Measures (3)

### • Objective

- SW Custom Measures
  - ✦ Definitions
  - ✦ Eligibility
  - ✦ Savings methods
  - ✦ Data collection requirements
  - ✦ M&V requirements
  - ✦ Calculation Tools/Resources

Custom  
Measure  
Characterization

### • Approach

- Custom Measure Subgroups
- Solicit CPUC input
- Custom Subcommittee approval
- Cal TF affirmation
- Solicit CPUC approval

### • Deliverables

- Custom Measure Packages, presented to Custom Subcommittee for affirmation

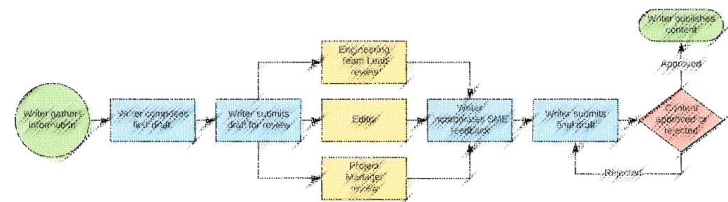
## 5C-2: Custom MP Develop/Update Workflow

### • Objective

- Formal workflow and process for developing, reviewing, and updating SW Custom Measures and Tools

### • Approach

- Adapt deemed MP workflows to custom
- Seek CPUC buy-in to provide input and review proposed SW custom measures and tools



### • Deliverables

- Custom Measure Package Development and Update Workflow, presented to TF for affirmation
- Assessment of potential to implement approved workflow in eTRM

# 5D: Update eTRM Documentation

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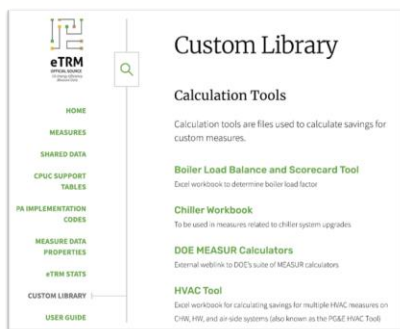
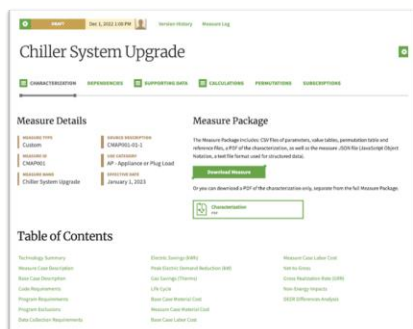
- Objectives:
  - eTRM documentation as needed to support custom measures and resources in the eTRM
- Deliverables:
  - eTRM Custom Measure Characterization Template
  - TBD based on 2023 Enhancements

# 5E: eTRM Implementation

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## 5E-1: eTRM Custom Phase 1

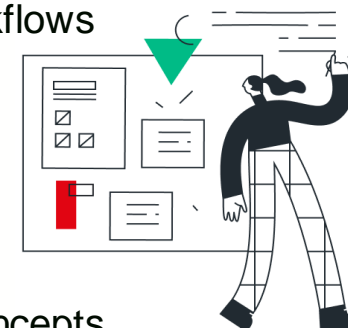
- **Objective**
  - Custom Measures
  - Custom Library



- **Deliverables**
  - Functional specifications and wireframes
  - Implement eTRM Custom Phase 1 (TBD)

## 5E-2: Additional eTRM Custom Modules

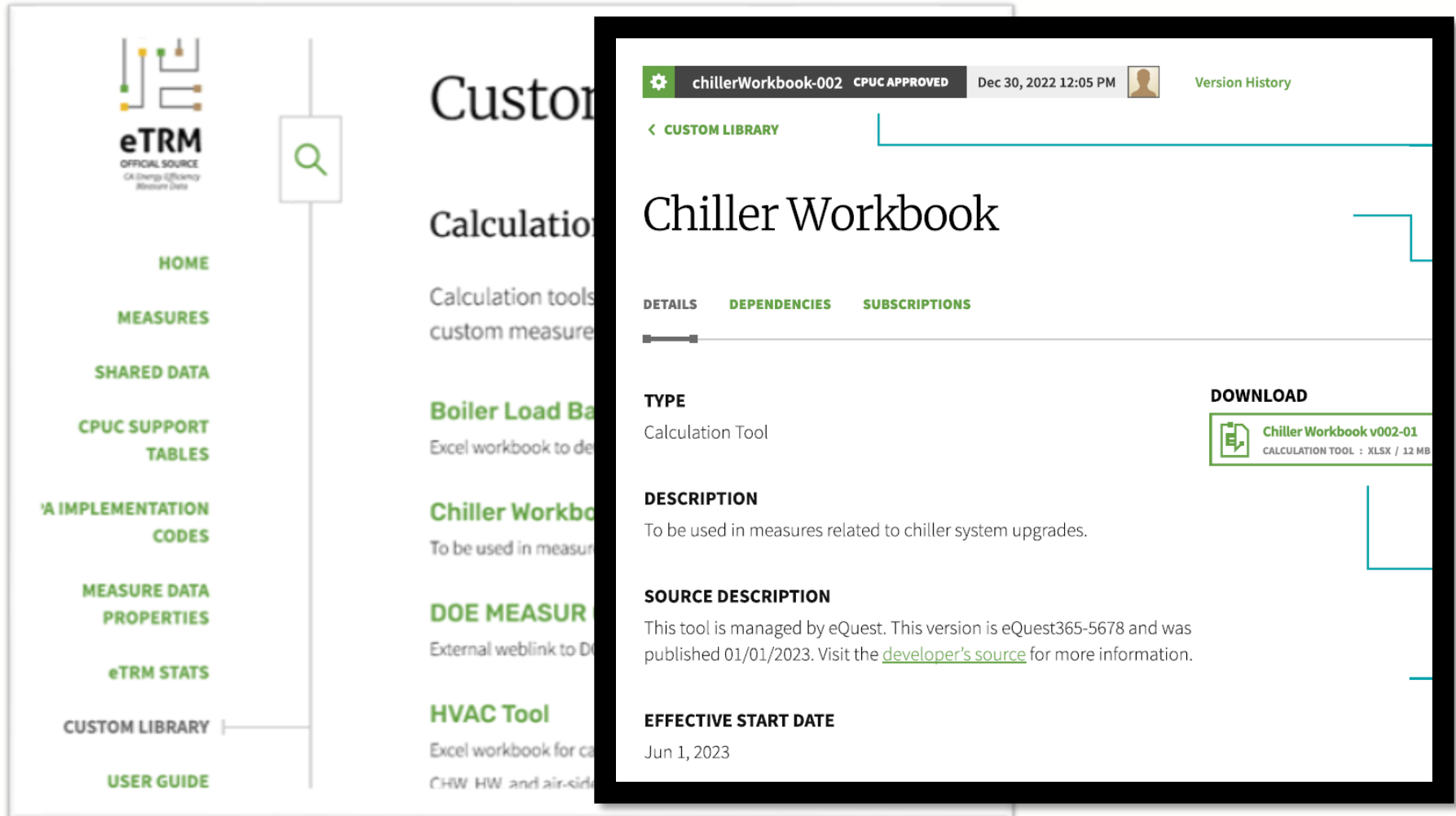
- **Objective: Leverage the eTRM for Custom**
  - Data intake
  - Calculations
  - POU tools
  - Develop custom projects
  - Project review workflows



- **Deliverables**
  - Custom module concepts
  - Custom eTRM Visioning Charette
  - Business requirements and functional specifications for select modules (TBD)

# eTRM Custom Library

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The screenshot displays the eTRM Custom Library interface. On the left is a navigation menu with the following items: HOME, MEASURES, SHARED DATA, CPUC SUPPORT TABLES, A IMPLEMENTATION CODES, MEASURE DATA PROPERTIES, eTRM STATS, CUSTOM LIBRARY (highlighted), and USER GUIDE. The main content area is titled 'Custom Calculation' and lists several tools: 'Boiler Load Ba', 'Chiller Workbo', 'DOE MEASUR', and 'HVAC Tool'. A modal window is open, showing the details for 'Chiller Workbook-002'. The modal header includes a gear icon, the name 'chillerWorkbook-002', the status 'CPUC APPROVED', the date 'Dec 30, 2022 12:05 PM', a user icon, and a 'Version History' link. Below the header is a breadcrumb '< CUSTOM LIBRARY'. The main title of the modal is 'Chiller Workbook'. There are three tabs: 'DETAILS' (selected), 'DEPENDENCIES', and 'SUBSCRIPTIONS'. Under the 'DETAILS' tab, the 'TYPE' is 'Calculation Tool'. The 'DESCRIPTION' states: 'To be used in measures related to chiller system upgrades.' The 'SOURCE DESCRIPTION' notes: 'This tool is managed by eQuest. This version is eQuest365-5678 and was published 01/01/2023. Visit the [developer's source](#) for more information.' The 'EFFECTIVE START DATE' is 'Jun 1, 2023'. On the right side of the modal, there is a 'DOWNLOAD' section with a download icon and the text 'Chiller Workbook v002-01' and 'CALCULATION TOOL : XLSX / 12 MB'.

**Custom Calculation**

Calculation tools  
custom measure

**Boiler Load Ba**  
Excel workbook to de

**Chiller Workbo**  
To be used in measur

**DOE MEASUR**  
External weblink to D

**HVAC Tool**  
Excel workbook for ca  
CHW HW and air-side

**Chiller Workbook**

**DETAILS** **DEPENDENCIES** **SUBSCRIPTIONS**

**TYPE**  
Calculation Tool

**DESCRIPTION**  
To be used in measures related to chiller system upgrades.

**SOURCE DESCRIPTION**  
This tool is managed by eQuest. This version is eQuest365-5678 and was published 01/01/2023. Visit the [developer's source](#) for more information.

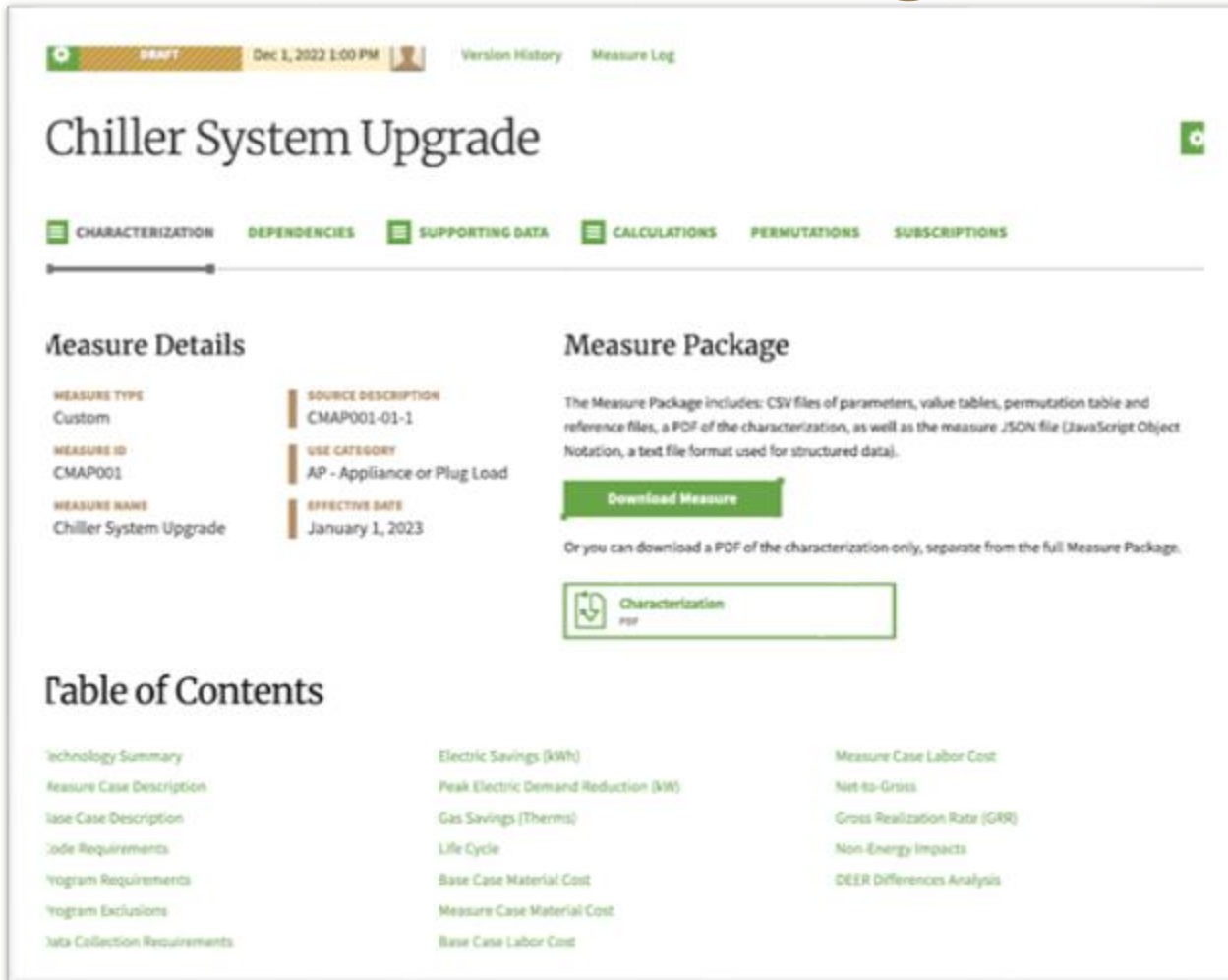
**EFFECTIVE START DATE**  
Jun 1, 2023

**DOWNLOAD**  
Chiller Workbook v002-01  
CALCULATION TOOL : XLSX / 12 MB



# eTRM Custom Measures

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The screenshot shows the eTRM Custom Measures interface for a "Chiller System Upgrade" measure. The interface includes a top navigation bar with "DRAFT", "Dec 1, 2022 1:00 PM", "Version History", and "Measure Log". Below the title "Chiller System Upgrade", there are tabs for "CHARACTERIZATION", "DEPENDENCIES", "SUPPORTING DATA", "CALCULATIONS", "PERMUTATIONS", and "SUBSCRIPTIONS". The "Measure Details" section on the left lists: MEASURE TYPE: Custom, MEASURE ID: CMAP001, and MEASURE NAME: Chiller System Upgrade. The "Measure Package" section on the right includes a "SOURCE DESCRIPTION" (CMAP001-01-1), a "USE CATEGORY" (AP - Appliance or Plug Load), and an "EFFECTIVE DATE" (January 1, 2023). It also features a "Download Measure" button and a link to download a PDF of the characterization only. A "Table of Contents" is located at the bottom, listing various sections such as "Technology Summary", "Measure Case Description", "Base Case Description", "Code Requirements", "Program Requirements", "Program Exclusions", "Data Collection Requirements", "Electric Savings (kWh)", "Peak Electric Demand Reduction (kW)", "Gas Savings (Therms)", "Life Cycle", "Base Case Material Cost", "Measure Case Material Cost", "Base Case Labor Cost", "Measure Case Labor Cost", "Net-to-Gross", "Gross Realization Rate (GRR)", "Non-Energy Impacts", and "DEER Differences Analysis".

Host measure-specific guidance on eligibility, savings methods, key parameters, etc.

Link to custom tools, templates, and resources

Leverage version control, workflow, and message log features

# Stakeholder Engagement

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## Ongoing Engagement

- **Custom Subcommittee**
  - Monthly meetings
  - Subgroups
  - Website & SharePoint
- **TF and PAC meetings**
  - Updates, input, affirmations (when needed)
- **SW Custom Coordination Meeting**
  - Cal TF Updates
- **Ad hoc meetings and requests**
  - Data requests
  - Input requests (stakeholder survey, document review)

## Key Stakeholders

- **CPUC Review Team**
  - Regular check-in
  - Solicit input and review at key milestones
- **PA Staff (IOU, POU, REN, CCA)**
  - Custom points of contact
  - Key decision-makers
  - Solicit input and review at key milestones
- **Implementers**
  - Implementer/Project Developer lists
  - CEDMC Meetings

# Discussion

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- Questions or discussion on Custom Initiative?

## Metric 6A

Develop at least one  
Technical Position  
Paper (TPP)

- Proposed TPP Topic:  
**Standardizing and Streamlining  
Custom Measures and Projects**
- Findings and recommendations  
from Custom Initiative, including:
  - Improving regulatory guidance
  - Improving SW Consistency
  - Support for SW Measures and Tools
  - Support for Hybrid Measures
  - Leveraging the eTRM
  - Improving the ISP process

Requires PAC Affirmation

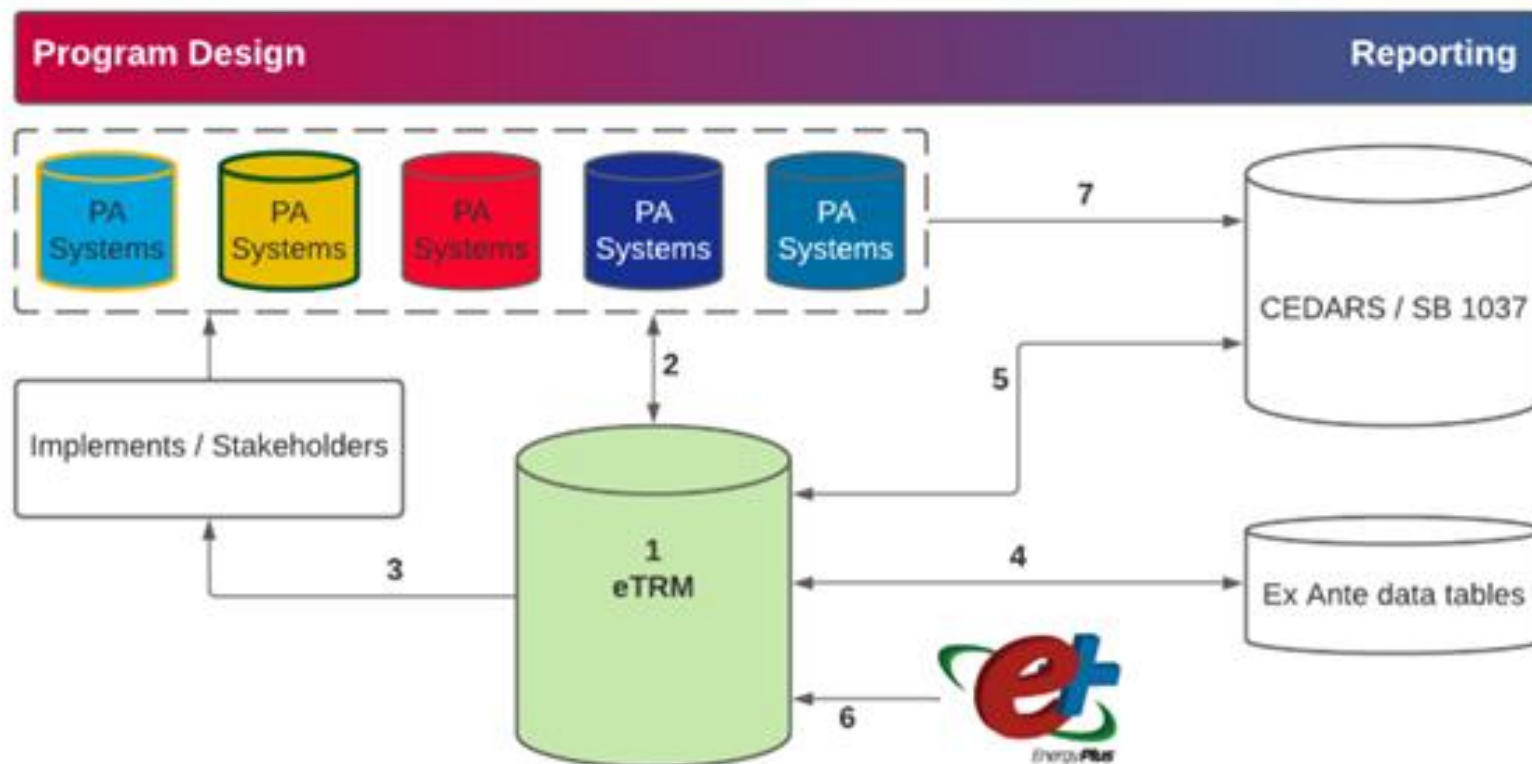
# EE Data Charrette



**ANNETTE BEITEL**

# EE Data Systems

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# Data Charette Objectives

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## Part 1 (June 21)

- Establish shared understanding of:
  - existing EE data systems & data flows
  - data needs/challenges from all stakeholder perspectives
- Discuss data use cases to support stakeholders and the state's EE and decarbonization goals
- Identify top 5 opportunities and/or strategies to address data challenges and improve EE performance through data solutions

## Part 2 (TBD)

- Establish a vision for a “future state” where we can fully leverage data to support the state's EE and decarbonization goals.
- Determine coordination needs and opportunities for demand side and supply side data
- Chart a path for key data use cases

Participants: CPUC, CEC, IOUs, POUs, RENs/CCA, Implementers, Evaluators, DAC/EJ Representative, Advocacy Orgs

## Next Steps

- Action Items
  - TBD
- Next PAC Meeting
  - Tuesday, June 20, 10am – 3pm
  - PG&E (300 Lakeside Drive, Oakland)
- Looking Forward
  - June 21 Data Charette (PG&E HQ)
  - Draft 5-year Cal TF Roadmap
  - Cal TF and eTRM Governance