

Technical Forum Meeting



CALIFORNIA
TECHNICAL FORUM

MARCH 23, 2023
REMOTE

Morning Agenda

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Time (PST)	Agenda Item & Action	Discussion Leader
10:00 – 10:30 (30 min)	Agenda Review and Quick Updates <ul style="list-style-type: none">eTRM Release UpdateseTRM Enhancement CharetteMetric 6D Regulatory Updates	Ayad Al-Shaikh
10:30 – 11:00 (30 min)	ISP White Paper <ul style="list-style-type: none">Refined objectives, scope, approach, scheduleISP study templates and search criteriaPotential future efforts ACT: <ul style="list-style-type: none">Stakeholder input on priority needs/value	Spencer Lipp, TF Member
11:00 – 12:00 (60 min)	Metric 5X Custom Initiative – Workplan <ul style="list-style-type: none">Draft 5X Workplan5X Activities UpdateCustom eTRM Module ACT: <ul style="list-style-type: none">Discuss, input on draft 5X Workplan	Arlis Reynolds
12:00 – 1:30	Lunch	n/a

Afternoon Agenda

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Time (PST)	Agenda Item & Action	Discussion Leader
1:30 – 2:00 (30 min)	Total System Benefit (TSB) Overview <ul style="list-style-type: none">• Why Total System Benefit• High-level explanation of TSB• Stakeholder Q&A	Rob Bohn, PG&E
2:00 – 2:30 (30 min)	Metric 4A New Measure Scorecard Update ACT: <ul style="list-style-type: none">• Input on revised scorecard metrics and priorities	Spencer Sator
2:30 – 2:45	Break	n/a
2:45 – 4:00 (75 min)	Metric 8C Cal TF 5-Year Roadmap – Update ACT: <ul style="list-style-type: none">• Input on Roadmap scope, sequence, schedule	Annette Beitel

Quick Updates

- eTRM Release Updates
 - v2.5.0 Released on 3/7/2023 (Security and Measure Property Data functionality)
 - v2.5.1 Release planned for week of March 27th (CET spec alignment)
- eTRM Enhancement Charette
 - Charette held 3/22/2023
 - Results will be posted on the Cal TF website:
 - [eTRM Version 2 Development — Cal TF](#)
- Metric 6D Regulatory Updates
 - SW Deemed Rulebook in progress (CPUC)
 - Interest in a “living” Rulebook

ISP White Paper

- [ISP White Paper Update](#)
- Refined objectives, scope, approach, schedule
- ISP study templates and search criteria
- Potential future efforts

BP Metric 5X

Custom Initiative
(includes all metrics in
BP Goal 5)

- Draft Workplan
- Activities Update
- Custom eTRM Module

- ACT:
 - Discussion and input
 - Review draft workplan and send comments by **Monday, April 10**



5X Workplan

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- “Custom Initiative”
- Draft Workplan will be posted on Cal TF website by Friday
- Custom Subcommittee discussion on April 5
- Send comments by April 10
- Revised 5X Workplan for affirmation at April 27 TF meeting

5X: Problem Statement

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- Stakeholder Challenges
 - Access, understanding, and staying current policy/guidance
 - Uncertainty and perceived inconsistencies in requirements
 - Long time periods and high costs to complete a project
 - Lost opportunities due to high cost of developing projects
 - Different systems, tools, and processes across PAs

5X: Goals, Metrics, and Objectives

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- Stakeholder Benefits
 - Transparency
 - Statewide consistency and standardization
 - Time savings
 - Cost savings
 - Stakeholder engagement
 - Increased participation and savings

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

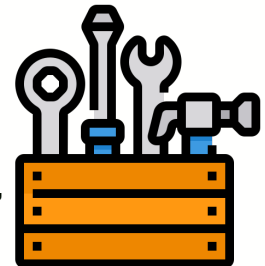
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5A-3: List of Measures for Statewide Methods

- **Objective**
 - Identify and prioritize custom measures for statewide standardization
- **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

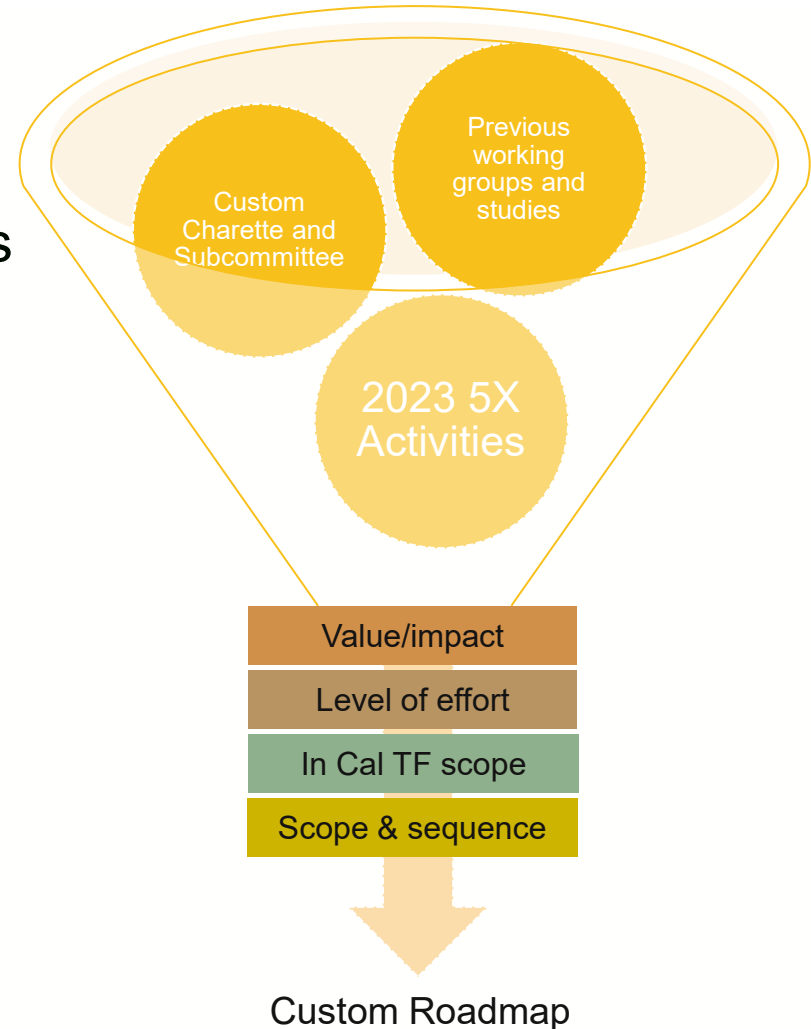
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- **Objectives**

- 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

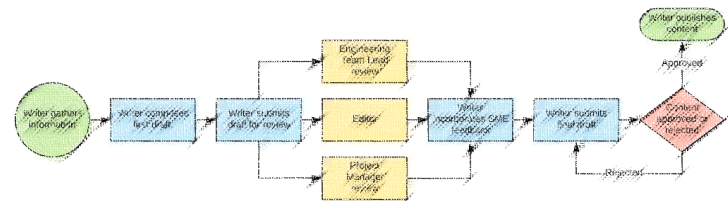
5C-2: Custom MP Develop/Update Workflow

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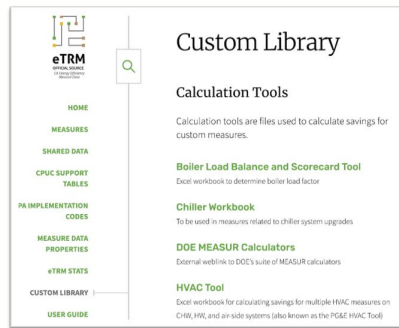
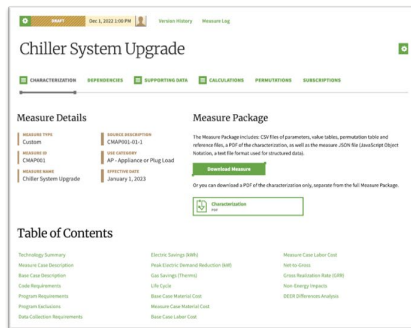
- Objectives:
 - eTRM documentation as needed to support custom measures and resources in the eTRM
- Deliverables:
 - eTRM Custom Measure Characterization Template
 - TBD based on 2023 Enhancements

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)

5X: Goals/Objectives

Task	Goals, Metrics, and Objectives
5A	<ul style="list-style-type: none"> • Improve stakeholder awareness, access, and understanding of custom regulatory guidance and policy • Improve ability for new stakeholders to understand custom policies and processes • Establish a statewide Measure ID structure for custom measures • Identify and prioritize custom measures that are good candidates for standard methods and tools and/or hybrid methods • Identify and make accessible tools to support custom measure development • Prioritize identified custom improvement recommendations
5B	<ul style="list-style-type: none"> • Achieve stakeholder consensus on a multi-year scope and schedule for Cal TF activities (beyond this workplan) to support the custom portfolio
5C	<ul style="list-style-type: none"> • Develop statewide standard methods and tools that clarify requirements, improve consistency, and reduce time and costs for measure development • Establish a formal process for development, review, and approval of statewide custom methods and tools
5D	<ul style="list-style-type: none"> • Develop user-friendly eTRM documentation to support any eTRM development for Custom
5E	<ul style="list-style-type: none"> • Develop functional specifications to host custom measures and resources in the eTRM • Develop a stakeholder-supported vision for how the eTRM can support the custom portfolio • Define eTRM Custom Modules to support the eTRM Custom vision

5X: Key Milestones

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- **5A. Gather, Organize, and Prioritize existing custom guidelines, tools, and resources**
 - Summary of Custom Regulatory Guidance Resources – **April 2023**
 - Draft Custom Measure ID Structure and Mapping for Stakeholder Review – **May 2023**
 - Affirmation of Custom Measure ID Structure – **TBD**

- **5B. Finalize High-Level Custom Roadmap by 2023 Q2**
 - Draft Custom Roadmap – **July 2023**
 - Final Custom Roadmap, Affirmation – **October 2023**

- **5C. Develop and Implement SW Methods for at least three Custom Measures**
 - Custom Measure Characterizations for Stakeholder Review – **June 2023**
 - Proposed Custom Measure Development, Review, and Approval Process – **July 2023**
 - Affirmed Custom Measure Characterizations – **TBD**

- **5D. Update eTRM Documentation**
 - TBD

- **5E. Implement select POU and statewide TRM tools/calculators in the eTRM**
 - Final Custom eTRM Phase 1 Functional Specifications – **March 2023**
 - Implementation of eTRM Phase 1 – **TBD**
 - eTRM Custom Visioning Charette – **July 2023**
 - Draft Vision for Custom eTRM Modules – **September 2023**

- **ISP White Paper**
 - Draft White Paper – **July 2023**
 - Final White Paper, Affirmation – **September 2023**

Stakeholder Engagement

- Custom Subcommittee
 - Monthly meetings
 - Subgroups
 - Website & SharePoint
- TF and PAC meetings
 - Updates, input, affirmations (when needed)
- CPUC Review Team
 - Regular check-in
 - Solicit input and review at key milestones
- SW Custom Coordination Meeting
 - Cal TF Updates
- Ad hoc meetings and requests
 - Data requests
 - Input requests (stakeholder survey, document review)


Data Requests

- Anticipated data requests include:
 - ❑ Non-public regulatory guidance resources (e.g., CMPA, IOU sources, and provided through project-specific communications)
 - ❑ Custom project activity data (i.e., aggregated biweekly upload data) for custom measures installed and in-progress
 - ❑ Custom Tool Archive (CTA) and other tools used to develop custom measures
 - ❑ Data and documentation from the CAEnergyGuidance.com resource
 - ❑ Selected project- or measure-specific standard practice research and determinations

eTRM Custom Phase 1

- Creates **Custom Measures** in the eTRM to host information on calculation methods and calculation tools for common custom measures
- Creates **Custom Library** in the eTRM to host calculation tools, templates, and other key statewide resources
- Does not include site-specific data or measure/project tracking

Custom Library



eTRM
OFFICIAL SOURCE
CA Energy Efficiency
Measure Data

HOME
MEASURES
SHARED DATA
CPUC SUPPORT TABLES
PA IMPLEMENTATION CODES
MEASURE DATA PROPERTIES
eTRM STATS
CUSTOM LIBRARY
USER GUIDE

Custom Library

Calculation Tools

Calculation tools are files used for custom measures.

Boiler Load Balance and

Excel workbook to determine boiler

Chiller Workbook

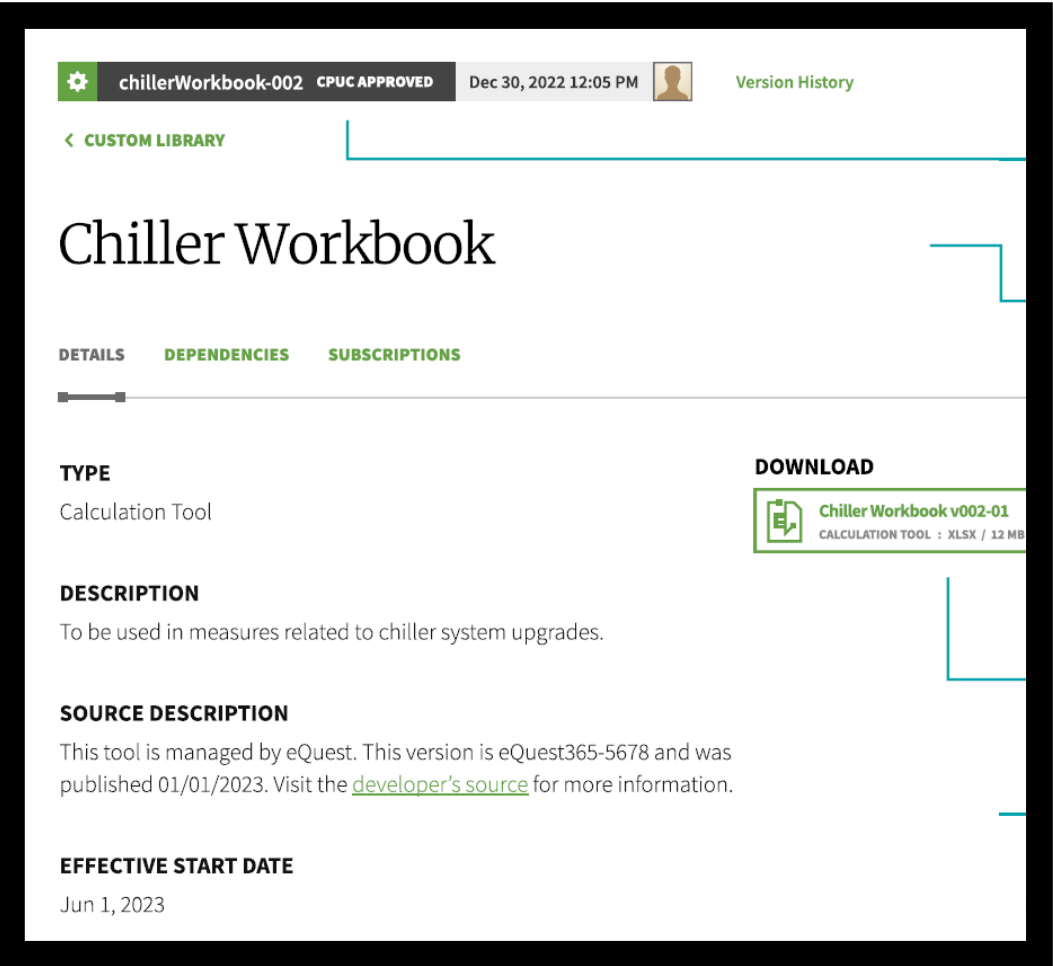
To be used in measures related to chiller

DOE MEASUR Calculation

External weblink to DOE's suite of M

HVAC Tool

Excel workbook for calculating savings for CHW, HW, and air-side systems (also



chillerWorkbook-002 CPUC APPROVED Dec 30, 2022 12:05 PM Version History

< CUSTOM LIBRARY

Chiller Workbook

DETAILS DEPENDENCIES SUBSCRIPTIONS

TYPE
Calculation Tool

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

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

Custom Measures

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CMAP001-01
Dec 1, 2022 1:00 PM
Version History

Chiller System Upgrade

CHARACTERIZATION
DEPENDENCIES
SUPPORTING DATA
CALCULATIONS
PERMUTATIONS
SUBSCRIPTIONS

Measure Details

MEASURE TYPE Custom	SOURCE DESCRIPTION CMAP001-01-1
MEASURE ID CMAP001	USE CATEGORY AP - Appliance or Plug Load
MEASURE NAME Chiller System Upgrade	EFFECTIVE DATE January 1, 2023

Measure Package

The Measure Package includes: CSV files of parameters, value tables, permutation table and reference files, a PDF of the characterization, as well as the measure JSON file (JavaScript Object Notation, a text file format used for structured data).

Download Measure

Or you can download a PDF of the characterization only, separate from the full Measure Package.

Characterization
PDF

Table of Contents

Technology Summary	Electric Savings (kWh)	Measure Case Labor Cost
Measure Case Description	Peak Electric Demand Reduction (kW)	Net-to-Gross
Base Case Description	Gas Savings (Therms)	Gross Realization Rate (GRR)
Code Requirements	Life Cycle	Non-Energy Impacts
Program Requirements	Base Case Material Cost	DEER Differences Analysis
Program Exclusions	Measure Case Material Cost	
Data Collection Requirements	Base Case Labor Cost	

LUNCH

12:00 – 1:30

Total System Benefit (TSB) Overview

- [TSB Overview by PG&E](#)
- Why Total System Benefit
- High-level explanation of TSB
- Stakeholder Q&A



Metric 4A New Measure Scorecard Update

- [Metric 4A New Measure Scorecard Update](#)
- Revised scorecard
- Proposed priorities for new measure intake 2023
- Proposed top 20 initial entities to target



BREAK
2:30 – 2:45

8A Cal TF 5-year Roadmap



- [Metric 8A Cal TF Roadmap Update](#)
- Roadmap Goals
- Roadmap Tactics

Closing & Next Steps

- Action Items
 - Review draft Custom Workplan
 - ✦ Send comments to arlis.reynolds@futee.biz
 - TBD
- Upcoming Meetings
 - 4/5 – Custom Subcommittee
 - TBD – Measure Property Data Subcommittee
- Next TF Meeting
 - April 27, LACI Building, Los Angeles