

Cal TF Custom Subcommittee Meeting #7



APRIL 5, 2023

Agenda & Goals

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- **Meeting Agenda**

- Quick Updates [10 min]
- Custom Workplan [20 min]
- ISP White Paper [30 min]
- DRAFT Custom Measure Package: Steam Boiler [45 min]
- Process for Statewide Custom Measures and Tools [15 min]

- **Meeting Goals**

- Collect/discuss questions and comments on draft 5X Workplan
- Introduce draft Steam Boiler Measure Package
- Stakeholder input to support (1) ISP White Paper, (2) process to develop SW measures and tools, (3) regulatory summary and review

Custom Initiative – Status

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| Metric | Activity/Task | Status | Upcoming |
|--------|---|--|---|
| 5X | Custom Initiative Workplan | Draft posted; comments due April 10 | Revised version for affirmation at 4/27 TF meeting |
| 5A-1 | Regulatory Summary & Review | In progress; identifying, compiling material | Summary of regulatory sources, characterized |
| 5A-2 | SW Custom Measure ID | Presented initial concepts in March; comparing with Ex Post Measure Group | Updated SW Measure Code Structure |
| 5A-3 | List of Measures for SW Custom Measure Packages | Cal TF Staff compiling measure list (claims and CPR data) | Stakeholder input to identify/prioritize measures for SW standardization |
| 5A-4 | List of Custom Tools | Cal TF Staff compiling list of existing tools | Stakeholder input to identify/prioritize tools for updating and development |
| 5B | Custom Roadmap | Cal TF Staff drafting based on stakeholder input to date | Stakeholder input to identify/prioritize needs/efforts for Roadmap |
| 5C-1 | SW Measure Characterization | Draft Steam Boiler Measure Package | Steam Boiler MP Affirmation (May) Other measures in upcoming for stakeholder input |
| 5C-2 | Custom MP and Tool Development Workflow | Discussing goal and approach today | Stakeholder buy-in on SW process |
| 5D | eTRM Documentation | Custom Measure Characterization template | TBD based on eTRM priorities |
| 5E-1 | eTRM Custom Phase 1 | Finalized design and functional specifications | Implementation pending eTRM enhancement priorities |
| 5E-2 | Future Custom eTRM Modules | - | eTRM 101 Training |
| 6B | White Paper: ISP | Update and stakeholder discussion | Stakeholder survey |

Blue text = items on today's agenda

Quick Updates

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- Draft 5X “Cal TF Custom Initiative” Workplan
 - Comments due April 10 (COB)
 - Discussing with CEDMC on 4/17

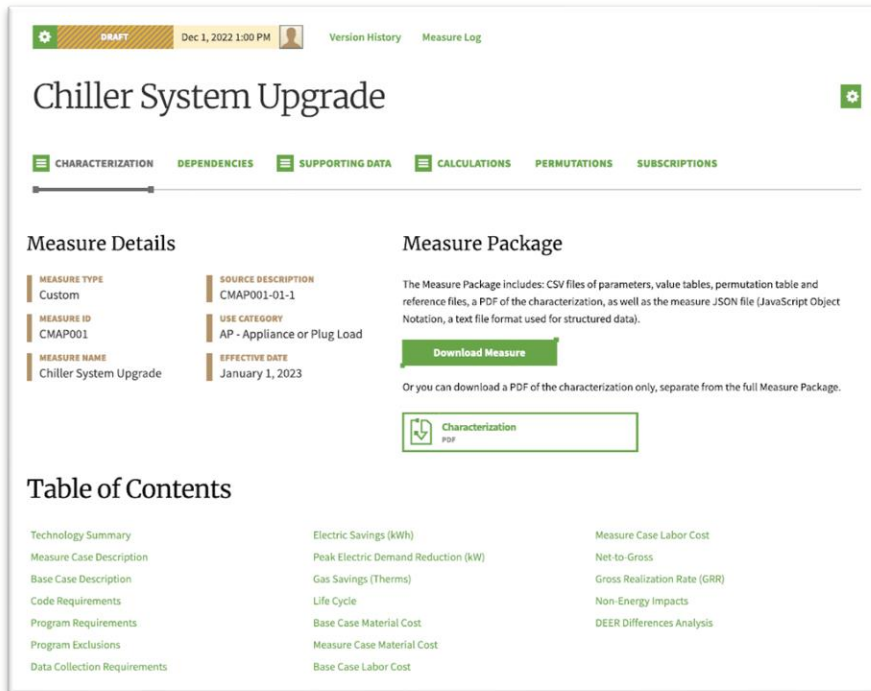
- eTRM Phase 1
 - Updated [Design 2.1](#)
 - Updated [Functional specifications](#)
 - Custom Library v. Custom Measures

Custom “Phase 1” Module

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Custom Measures to host information on calculation methods and tools

Custom Library to host tools, templates, and other key resources



Chiller System Upgrade

CHARACTERIZATION | DEPENDENCIES | SUPPORTING DATA | CALCULATIONS | PERMUTATIONS | SUBSCRIPTIONS

Measure Details

- MEASURE TYPE: Custom
- MEASURE ID: CMA001
- MEASURE NAME: Chiller System Upgrade
- SOURCE DESCRIPTION: CMA001-01-1
- USE CATEGORY: AP - Appliance or Plug Load
- 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).

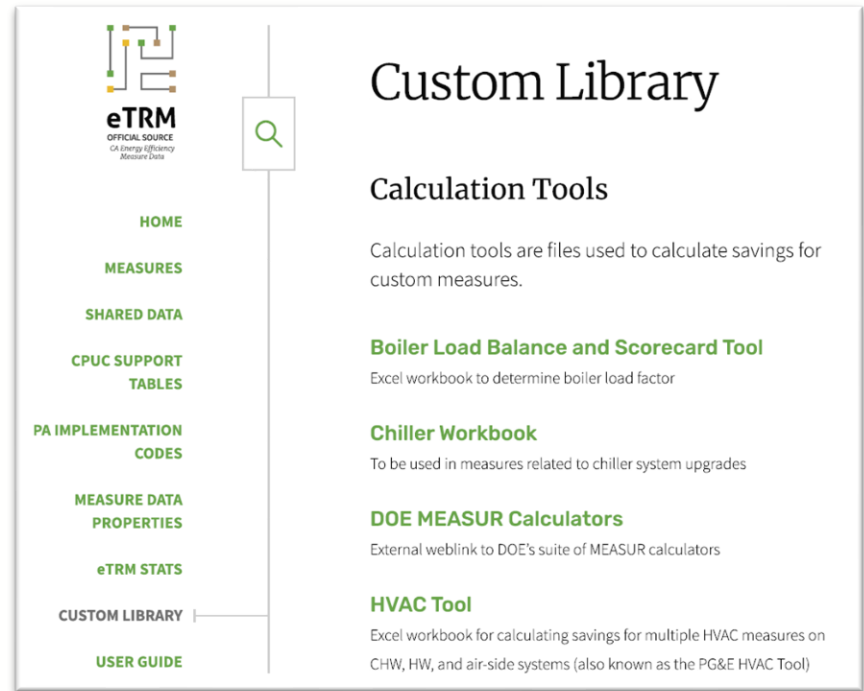
[Download Measure](#)

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

[Characterization PDF](#)

Table of Contents

- Technology Summary
- 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
- DEER Differences Analysis



eTRM
OFFICIAL SOURCE
Of Energy Efficiency Measure Data

Custom Library

Calculation Tools

Calculation tools are files used to calculate savings for custom measures.

- Boiler Load Balance and Scorecard Tool**
Excel workbook to determine boiler load factor
- Chiller Workbook**
To be used in measures related to chiller system upgrades
- DOE MEASUR Calculators**
External weblink to DOE's suite of MEASUR calculators
- HVAC Tool**
Excel workbook for calculating savings for multiple HVAC measures on CHW, HW, and air-side systems (also known as the PG&E HVAC Tool)

Metric 5X

Custom Initiative
Workplan (includes all
metrics in BP Goal 5)

- [Draft 5X Custom Initiative Workplan](#)
- **Schedule**
 - 3/23 – posted and presented to TF
 - 4/5 – discuss with Custom Subcommittee
 - **4/10 – deadline for comments**
 - TBD – review with CPUC CPR team
 - TBD – revised workplan presented to TF for affirmation

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

5X: Goals/Objectives

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| 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"> ▪ Establish high-level scope, priorities, and schedule for future Cal TF activities to support custom ▪ Develop framework for Custom Initiative tactics in future Business Plans |
| 5C | <ul style="list-style-type: none"> ▪ Develop statewide standard methods and tools that clarify requirements, improve consistency, and reduce time and costs to develop custom measures ▪ Establish a process for development, review, updates, 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 ▪ Implement 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

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- Custom Subcommittee
 - Monthly meetings
 - Subgroups
 - Website & SharePoint

- TF and PAC meetings
 - Updates, input, affirmations (when needed)

- CPUC Custom Project 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)

- **Other Engagement**
 - CEDMC Meetings

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

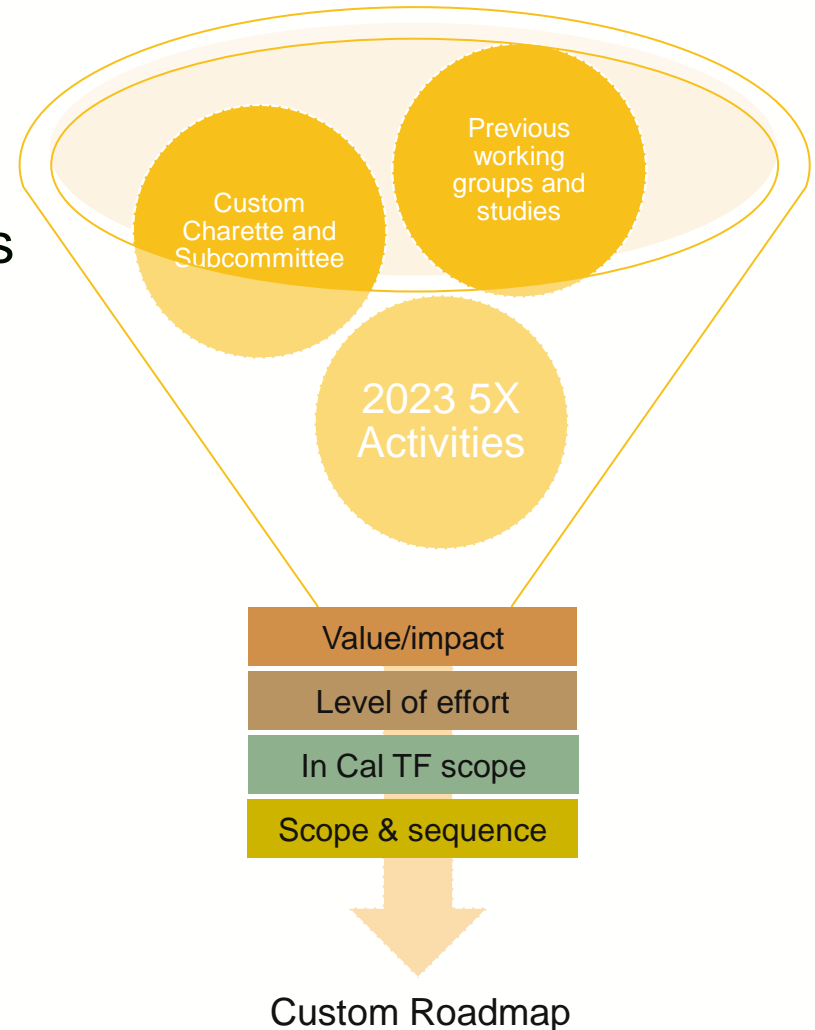
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- **Objectives**

- 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

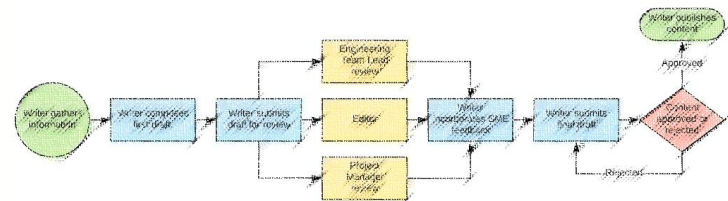
5C-2: Custom MP Develop/Update Workflow

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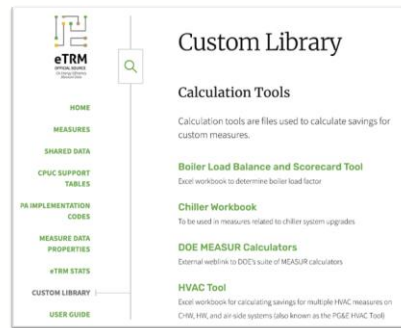
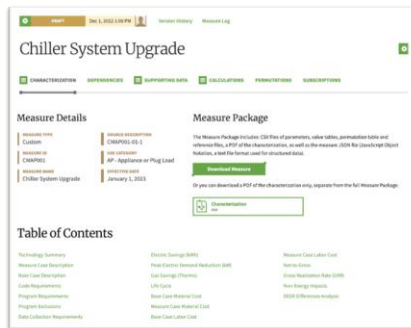
- Objectives:
 - eTRM documentation as needed to support custom measures and resources in the eTRM
- Deliverables:
 - eTRM Custom Measure Characterization Template
 - TBD based on 2023 Enhancements

5E: eTRM Implementation

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5E-1: eTRM Custom Phase 1

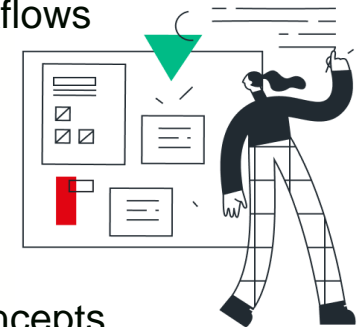
- **Objective**
 - Custom Measures
 - Custom Library



- **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)

Anticipated Data Requests

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| Data | CPUC | IOU | POU | Implementers | Status |
|---|------|-------|-----|--------------|----------------------|
| Non-public regulatory guidance resources | X | X | | | TBD |
| Current custom project activity data – submitted | X | TBD | X | | Submitted |
| Past custom measure/project claims | X | | | | Submitted |
| Tools used to develop custom measures | X | X | X | X | Previously requested |
| Data and documentation from the CAEnergyGuidance.com – in progress | | SDG&E | | | In Progress |
| Selected project- or measure-specific standard practice research and determinations | X | X | | X | TBD |
| | | | | | |

Metric 6B

Industry Standard
Practice White Paper

- [ISP White Paper Update](#)
 - Materials on SharePoint
 - Email arlis.reynolds@futee.biz if you need access.

Metric 5C-1

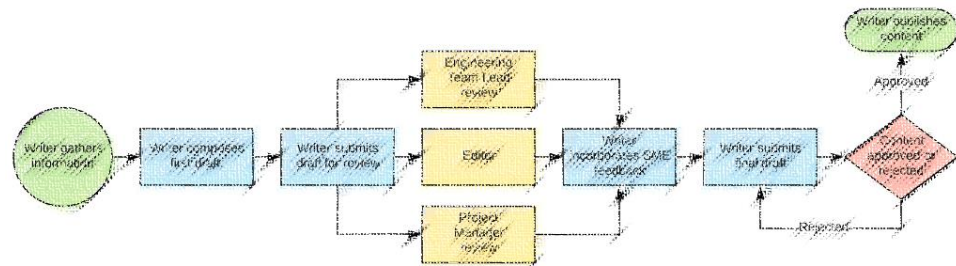
Statewide Custom
Measure Packages

- Steam Boiler Measure Package
 - Materials on SharePoint
 - Email arlis.reynolds@futee.biz if you need access.

Metric 5C-2

Custom Measure Package and Tool Development and 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



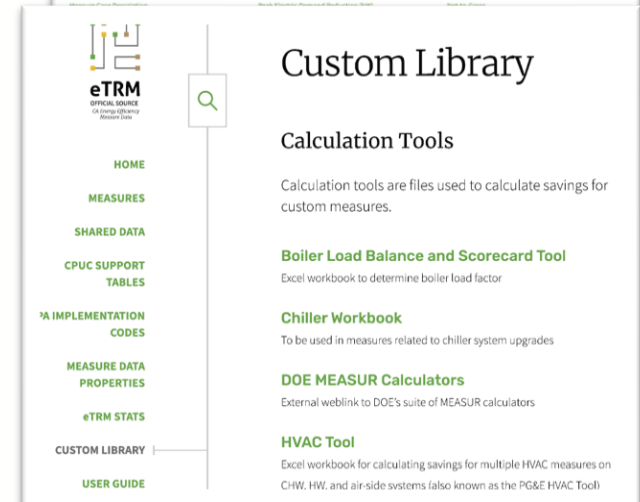
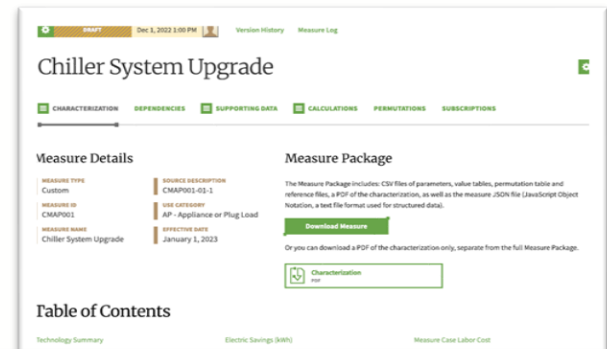
- Deliverables
 - Custom Measure Package Development and Update Workflow, presented to TF for affirmation
 - Assessment of potential to implement approved workflow in eTRM

Overarching Goal

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- Public library of Custom Measures and Custom Tools that are:

- Complete, well-documented
- Consistent
- Meet appropriate technical rigor
- Reliable, ideally CPUC-approved
- Maintained up-to-date
- Useful, **worth the effort to develop**
 - Understanding there is enough market opportunity
- What else?**



Wrap-Up & Next Steps

- **Action Items**
 - Draft custom workplan comments **due April 17**
 - Draft Steam Boiler comments **due April 19**
 - Join ISP White Paper team

- **Next time (tentative)**
 - Steam Boiler Measure Package for affirmation
 - Update on PG&E Chiller Tool
 - Custom regulatory summary and recommendations
 - Best practices for SW Measure Packages and Tools

- **Upcoming**
 - TBD – eTRM 101 for Custom
 - Ongoing – Measure Group meetings
 - 4/27 – TF Meeting (Los Angeles)
 - 5/3 – next Custom Subcommittee Meeting