

Cal TF Custom Subcommittee Meeting #8



MAY 3, 2023

Agenda & Goals

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- **Meeting Agenda**

- Workplan Updates (15 mins)
- 5A-4 List of Custom Tools (30 mins)
 - ✦ Update on PG&E Chiller Tool
- 5C-1 Statewide Custom Measures Update (30 mins)
 - ✦ Discuss: Steam Boiler + AOE Measures
- 5C-2 Workflow for Statewide Custom Measures and Tools (45 min)

- **Meeting Goals**

- Update Subcommittee on Custom Workplan Progress and opportunities to get involved/give input (5X)
- Stakeholder input on statewide tools and characterization approach (5A-4)
- Stakeholder input on workflow for development, review, approval and updates to custom measure packages and tools (5C-2)
- Update/engage Subcommittee on measure-specific efforts (5C-1)

Quick Updates

Custom Initiative &
Workplan Updates

- Cal TF Staffing
- Custom Workplan
 - TF affirmed on 4/27
 - [Custom Initiative Workplan](#)
- Technical Position Paper
 - PAC affirmed on 4/28
- ISP White Paper Update (6B)
 - CPUC Update on ISP Guidance v3.1
 - Stakeholder Survey coming soon

Custom Initiative – Status

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Metric	Activity/Task	Status Update	Upcoming
5X	Custom Initiative Workplan	TF affirmed rev Custom Workplan on 4/27	-
5A-1	Regulatory Summary & Review	In progress; identifying, compiling material	Summary of regulatory sources, characterized
5A-2	SW Custom Measure ID	Follow-up Qs with PAs	Updated SW Measure Code Structure (June)
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; comments due EOD May, 8	Steam Boiler MP Affirmation (June) Other measures upcoming for stakeholder input
5C-2	Custom MP and Tool Development Workflow	Discussing approach today	Stakeholder buy-in on SW process (June)
5D	eTRM Documentation	Custom Measure Characterization template	TBD based on eTRM priorities
5E-1	eTRM Custom Phase 1	Custom Library development in 2024 Q1; Custom Measures for future development	Implementation pending eTRM enhancement priorities
5E-2	Future Custom eTRM Modules	-	eTRM 101 Training
6B	White Paper: ISP	-	Stakeholder Survey

Blue text = status updates

Metric 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.



List of Custom Tools

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- Compiling list
 - CPUC/IOU Custom Tool Archive (CTA)
 - Custom Subcommittee Tools List
 - POU Measure Workbooks
 - 2013 Customized Calculation Tool
 - CPUC Custom Team input
- Characterizing list
 - Considerable overlap
 - Obsolete tools
 - ✦ Completely obsolete
 - ✦ Modifications required

Next Steps

- Compile a consolidated list
- Seek stakeholder review and input on completeness

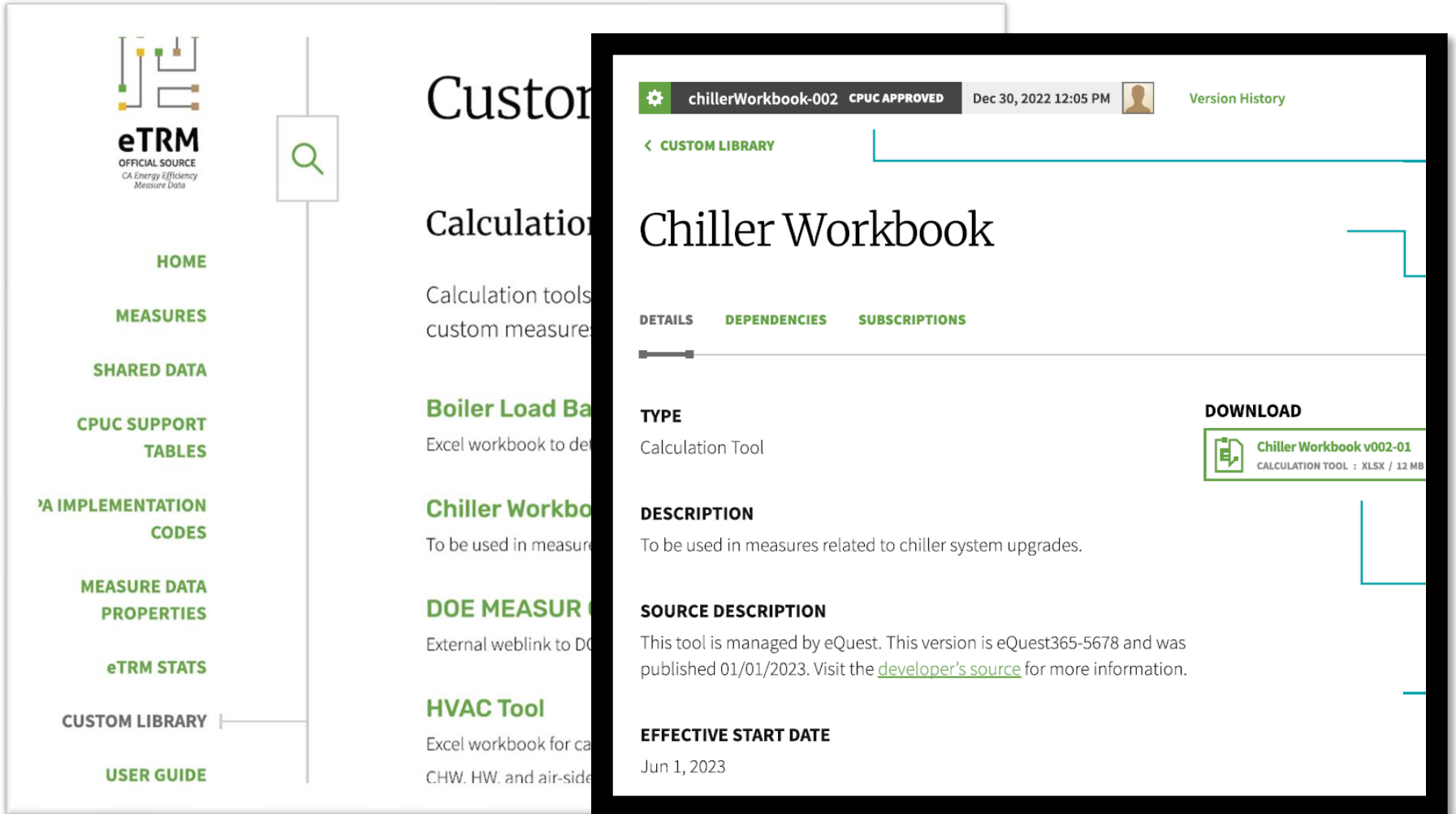
Assessing Custom Tools

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- Applicability
 - Type of measure(s), systems, or scenarios
- Eligibility
 - Up to date with policy and data,
- Program History
 - Supported approved projects
- Stakeholder input (including the CPUC team)
 - Applicability and use
 - Engineering quality
 - Update needs

eTRM Custom Library

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The screenshot displays the eTRM Custom Library interface. On the left is a sidebar with navigation links: 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 shows a list of calculation tools, including 'Boiler Load Balance', 'Chiller Workbook', 'DOE MEASUREMENT', and 'HVAC Tool'. A modal window is open over the 'Chiller Workbook' tool, showing its details.

Custom Library

Calculation Tools

Calculation tools for custom measures

- Boiler Load Balance**
Excel workbook to determine boiler load balance
- Chiller Workbook**
To be used in measures related to chiller system upgrades.
- DOE MEASUREMENT**
External weblink to DOE EnergyPlus simulation
- HVAC Tool**
Excel workbook for calculating CHW, HW, and air-side loads

Chiller Workbook

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

< CUSTOM LIBRARY

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.

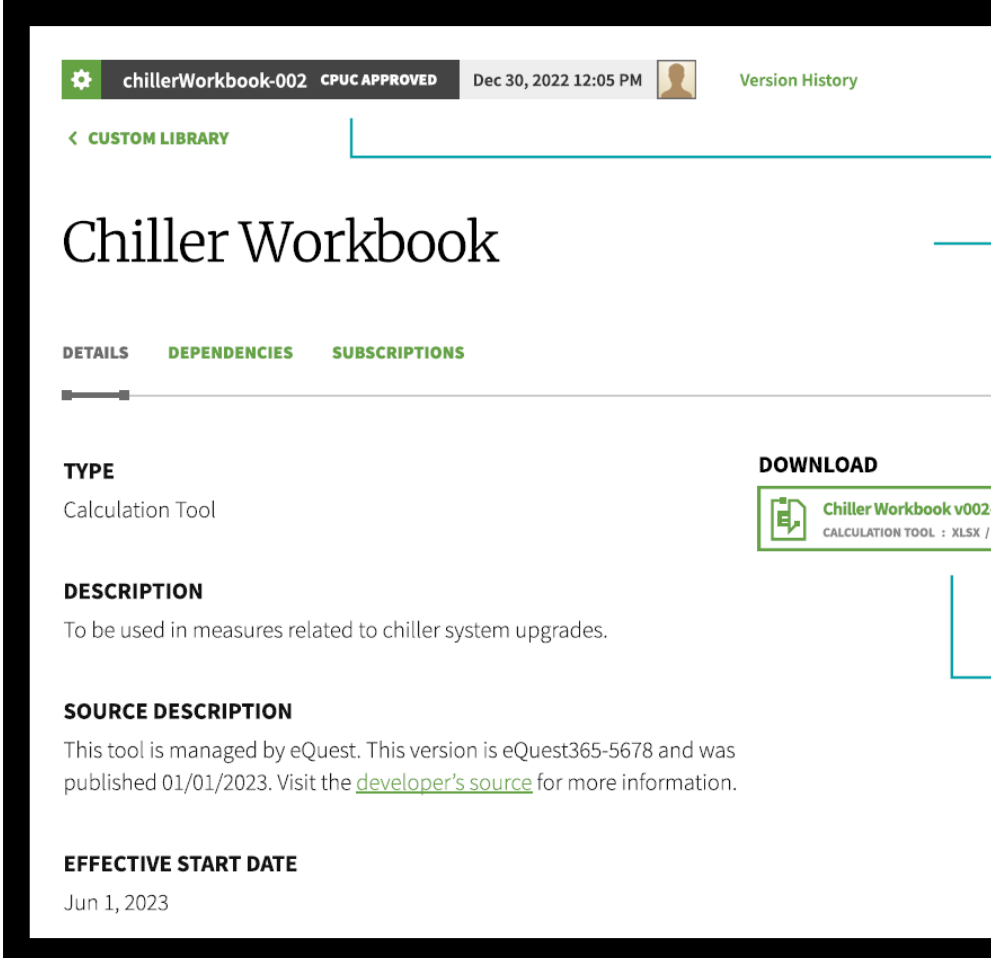
SOURCE DESCRIPTION
This tool is managed by eQuest. This version is eQuest365-5678 and was published 01/01/2023. Visit the [developer's source](#) for more information.

EFFECTIVE START DATE
Jun 1, 2023

Components of Custom Tools Library

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- Status
 - ❑ Statewide CPUC under review
 - ❑ Statewide CPUC approved
 - ❑ PA approved w/ specification of which PA
 - ❑ Program w/ specification of which PA
- Description
 - ❑ Applicability (e.g., equipment type, capacity, measure, sector, etc.)
 - ❑ Inputs
 - ❑ Assumptions
 - ❑ Methodology description?
- Effective Start Date
 - ❑ Update triggers and timeline



The screenshot shows a web interface for a tool named "Chiller Workbook". At the top, there is a header bar with a gear icon, the text "chillerWorkbook-002 CPUC APPROVED", a timestamp "Dec 30, 2022 12:05 PM", a user profile icon, and a "Version History" link. Below the header, there is a navigation bar with a back arrow and the text "< CUSTOM LIBRARY". The main title "Chiller Workbook" is prominently displayed. Underneath, there are three tabs: "DETAILS" (selected), "DEPENDENCIES", and "SUBSCRIPTIONS". The "DETAILS" tab is active, showing the following information:

- 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

On the right side of the "DETAILS" tab, there is a "DOWNLOAD" section with a download icon and the text "Chiller Workbook v002" and "CALCULATION TOOL : XLSX /".

PG&E HVAC Tool

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- PG&E updating HVAC tool
 - PG&E HVAC Tool v2.1.2
 - PG&E HVAC Tool v2.1.2 Methodology Write-Up
- Request for input
 - Methodology
 - How the tool is used and getting the inputs requested in the tool
- Working group meetings on Fridays at 1pm
- Email Danny Ng at D1N1@pge.com for more info.

Metric 5C-1

Statewide Custom Measure Packages

- **Objective**

- SW Custom Measure Packages
 - ✦ 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

Statewide Measure Packages

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- Boilers + Add-On
- Chiller System Upgrade
- Retrocommissioning
- Pump Systems
- VFD on HVAC Fans

- All materials accessible on the SharePoint [Custom Measure Library](#)
- Email Spencer.Lipp@futee.biz to join working group(s).

Steam Boiler Measure Package

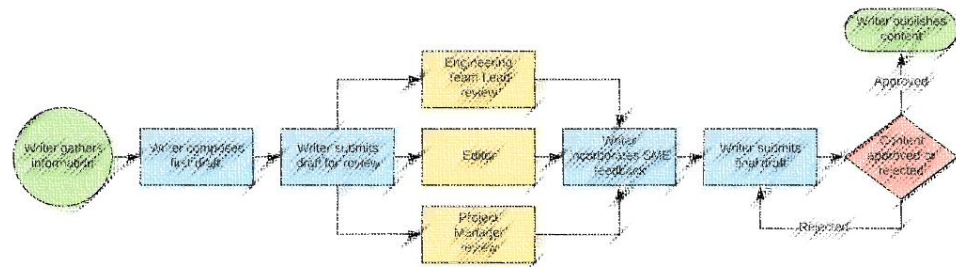
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- Steam Boiler Measure Package (PPT)
 - Measure Characterization (Word)
 - Load Balance and Score Card Tool (Excel Tool)
 - Flue Gas Efficiency Calculator (Excel Tool)
 - DOE MEASUR (DOE Tool)
- Send comments to Steven.Long@icf.com and Arlis.Reynolds@futee.biz by **EOD Monday, 5/8.**

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



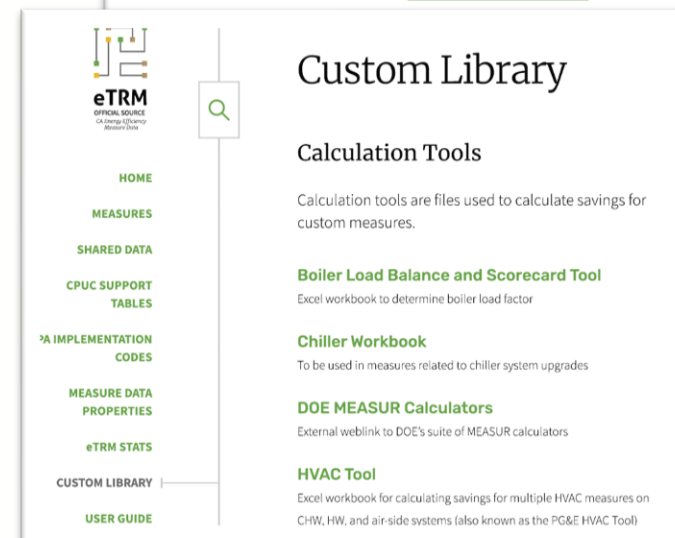
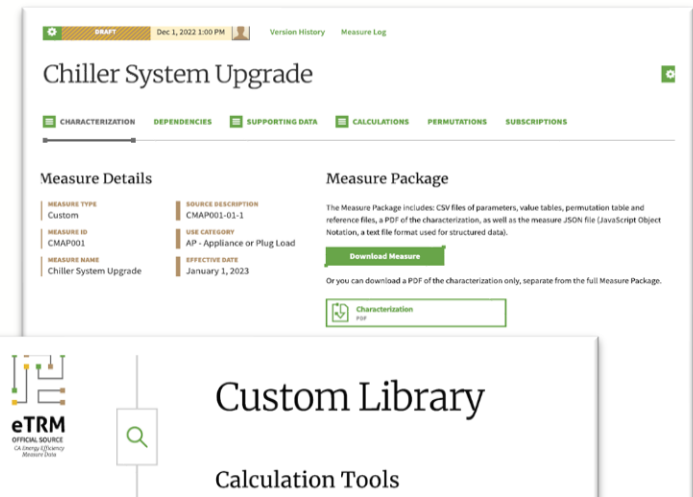
- **Deliverables**
 - Custom Measure Package Development and Update Workflow, presented to TF for affirmation
 - Assessment of potential to implement approved workflow in eTRM

Overarching Goal

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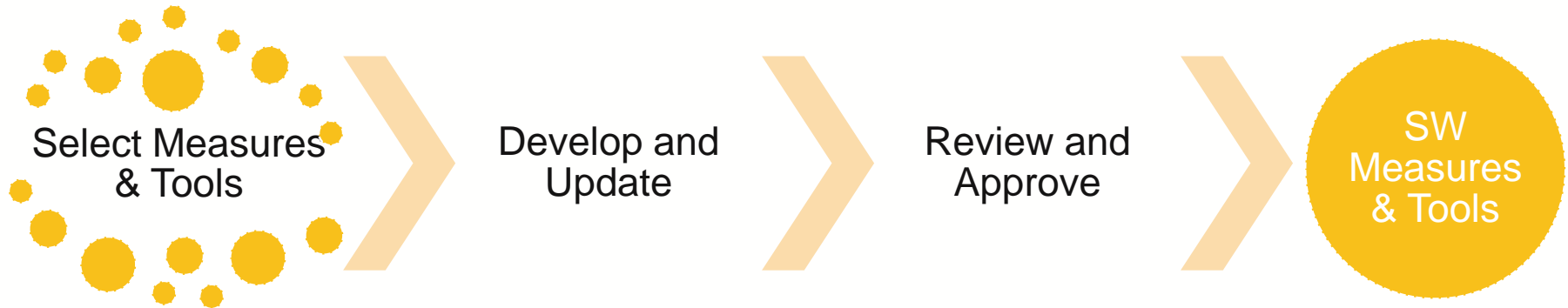
- Public library of Custom Measures and Custom Tools that are:

- Complete
- Well-documented
- Consistent
- Meet appropriate technical rigor
- Reliable (ideally CPUC-approved)
- Maintained up-to-date
- Useful, used



Discussion

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- Discussion Points

- How do we develop SW measures and tools?
- How should we vet, review, and approve SW measures and tools?
- How should we keep measures/tools up to date?

Deemed MP Development

The workflow in the eTRM consists of two primary segments:

PA Measure Development

In these Guidelines, “PA measure development” refers to all activities undertaken by a PA team (PA staff and its contractors) to create a new statewide energy efficiency measure version.

This segment also includes review of the unpublished measure version by Cal TF Staff and under certain circumstances by a Cal TF subcommittee.

CPUC Review

“CPUC review” refers to all activities undertaken by the CPUC review team (CPUC staff and its ex ante review team contractors) to review submitted versions, provide comments, request information from the PA, and issue a final disposition (approve or reject the measure version for IOU portfolios).

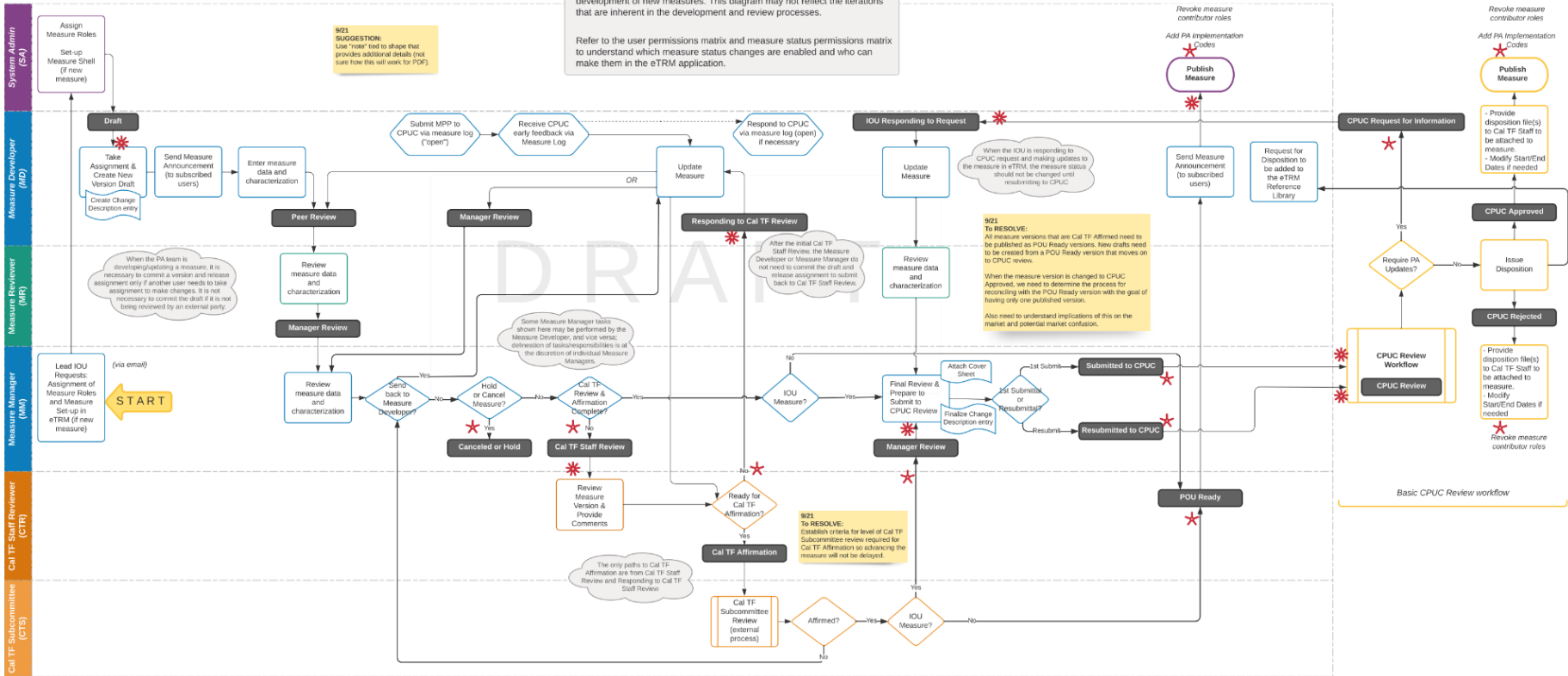
Only measure versions that are intended for the IOU portfolios need to be submitted to the CPUC review process.

Deemed MP Development

eTRM Workflow: PA Measure Development/Measure Update

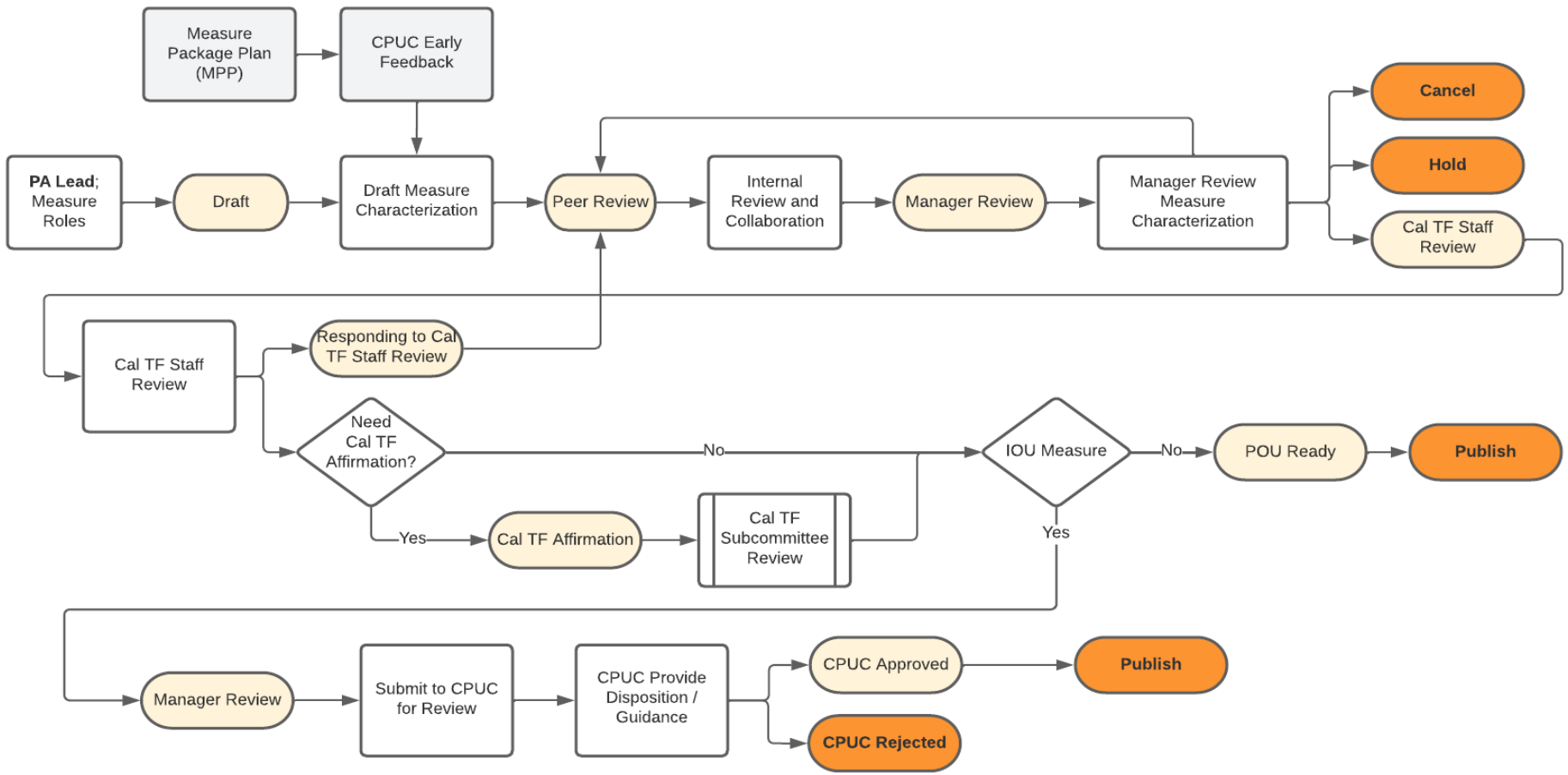
This is a generic workflow that applies to standard measure updates and the development of new measures. This diagram may not reflect the iterations that are inherent in the development and review processes.

Refer to the user permissions matrix and measure status permissions matrix to understand which measure status changes are enabled and who can make them in the eTRM application.



eTRM Workflow: 2022.12.14 1:51:40 PM

Deemed MP Development, Simplified



Discussion

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- Discussion Points

- How do we develop SW Custom measures and tools?
- How should we vet, review, and approve SW measures and tools?
- How should we keep measures/tools up to date?

Questions

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- Development Process
 - Does there need to be “Lead PA” for each measure/tool?
 - How do we determine development and peer review team?
 - Should there be a Measure Package Plan step (e.g., early opinion)?
- Review and Approval
 - Require Cal TF affirmation? When? How? Who?
 - Custom methods and tools are not typically pre-approved by CPUC. Should we pursue CPUC pre-approval?
 - Formal PA approval on all measures and tools?
- Other
 - Different pathways for hybrid, POU, IOU custom measures?
 - Differences for Measure Guidance vs. Tools?
 - Ownership & fundings for development/updates?

Wrap-Up & Next Steps

- **Action Items**
 - Draft Steam Boiler comments **due May 8** (5C-1)
 - Feedback on custom measure & tool development to Arlis.Reynolds@futee.biz (5C-2)
- **Next time (tentative)**
 - Custom Roadmap
 - Steam Boiler Measure Package **for affirmation**
 - Workflow for SW Measure Packages and Tools **for affirmation**
 - Custom policy summary and recommendations
 - SW Custom Measure Codes
- **Upcoming**
 - TBD – eTRM 101 for Custom
 - Ongoing – Measure Group meetings
 - 5/25 – TF Meeting (remote)
 - **6/7 – next Custom Subcommittee Meeting**

Open Discussion

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