California Statewide Deemed Measures

eTRM
OFFICIAL SOURCE
CA Energy Efficiency Measure Data

eTRM User Guide for
Base Users and Measure Contributors

VERSION 2.3

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Revision Log

Version	Publish Date	Description of Revisions	Owner
1.0	10.15.2019	Initial version.	Jennifer Holmes, Cal TF Staff
2.2	08.25.2021	Addition of Revision Log. Added topics with videos to reflect Release 2.2 features. Removed all sections and videos related to measure editing tasks. (Measure editing and associated measure development and review workflow will be covered in separate training materials for users with a Measure Contributor role.) Added terms and definitions to Key Terms.	Jennifer Holmes, Cal TF Staff
2.3	12.14.2022	Updated image under the Key Terms section, General Terms subsection, under Statewide Measure ID. Updated the following videos: Check if PA Implementation Codes are Available for Download (How to section, Downloading Data and Information subsection) Learn About CPUC Support Tables (How to section, CPUC Approved Parameters and Values subsection) Upward and Downward Dependencies of Measures, Value Tables, and Parameters (How to section, Exploring subsection) Find a Measure Version History (How to section, Exploring subsection) Download the All Permutations Report (How to section, Downloading Data and Information subsection) Added the following videos: Subscribe to a Measure (How to section, Exploring subsection) Change Your Notification Settings (How to section, Getting Started subsection) Download the Measure Package and Characterization (How to section, Downloading Data and Information subsection) Access the Measure Package Review Summary Report (How to section, Reporting subsection) Added section for Measure Contributors and for System and CPUC Admins.	Tomas Torres-Garcia, Cal TF Staff

Table of Contents

Overview

This guide will help users learn to use the California Electronic Technical Reference Manual (eTRM). The eTRM is an online database and repository of deemed energy efficiency measures available for programs administered by investor-owned utilities (IOUs) and publicly owned utilities (POUs) throughout the State of California.

This guide covers the most common tasks that **all Base Users** can complete in the eTRM.

This User Guide includes two sections:

> Key Terms are terms that eTRM users will find throughout the eTRM application. Understanding these terms will make it easier to learn how to use the eTRM.

> The How To section will help a new User learn how to navigate around and complete basic tasks in the eTRM. Each topic includes a short video that demonstrates the task**.** *Simply click on a video thumbnail in this Guide to view the video on YouTube.*

Additional resources are available on the Tools page on the Cal TF website.
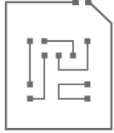
Key Terms

Key terms to aid in the understanding of fundamental concepts and features of the eTRM application are defined below.

System Roles

The eTRM provides three levels of system access: Base User, System Administrator, and CPUC Administrator.

A **Base User (User)** is a person who creates a User account in the eTRM. A Base User can view all Published measures and data in the eTRM. A Base User can view and edit an unpublished measure only after a System Administrator assigns them a Measure Contributor Role for a specific measure. See Measure Contributor Roles.

A **System Administrator** has universal access in the eTRM to manage and maintain reliable operation of the application. The System Administrator manages User permissions and the administration of all features and services, troubleshoots identified issues, responds to User inquiries, maintains system documentation, and manages the eTRM Reference Library and Asset Library. The System Administrator will dispatch notifications to Users as necessary.

A **CPUC Administrator** has some but not all of the system access as a System Administrator in order to maintain regulatory oversight over the CPUC Support Tables and related Shared Data Library, and to oversee the review and approval of all data, Calculations, and Permutations of Measure Versions approved for the IOU energy efficiency portfolios.

Measure Contributor Roles

Measure Contributor is a User who has been assigned a Measure Contributor Role for a specific measure by a System Administrator or a CPUC Administrator.

Measure Contributor Role is a designation that awards additional access and permissions to a User to view unpublished measure versions and to conduct specific editing and review tasks as part of the measure development and review processes. Measure contributor roles are: Measure Developer, Measure Reviewer, Measure Manager, Cal TF Staff Reviewer, CPUC Reviewer, and CPUC SME Reviewer.

A measure contributor role can be assigned to a User only by a CPUC Administrator or System Administrator. Tasks that can be performed by a measure contributor are not covered in this Guide, however, the Measure Contributor subsection in the How To section provides a list of videos available for Measure Contributors

General Terms

All Permutations Report is a listing of all permutations for all published measure versions, updated nightly and available for download as a .csv file.

Announcement is a measure-specific update emailed to subscribed Users.

Application Programming Interface or **API** is a software intermediary that allows two software applications to "talk" to each other. Several APIs are provided to eTRM Users for integrating eTRM with another program or data processing application.

API Key is a unique identifier used to authenticate an API call.

Calculation is an equation that calculates a value from one or more variables. In the eTRM, a calculation can reference columns of numeric values in one or more value tables and other calculated values, and thus must be arranged in the appropriate calculation order. The eTRM allows calculations to vary for selected parameter labels. For example, a measure version that has permutations for Freezer and Cooler could have different calculations for the permutations defined by each of these labels.

CET Integration allows a User to download a data file for one or more measures versions that is pre-formatted for analysis in the CEDARS Cost Effectiveness Tool (CET). The resultant data file output from the CET can also be uploaded into the measure permutations for comparative analysis purposes.

CPUC Support Tables are read-only copies of the CPUC Database for Energy Efficient Resources ("DEER") data tables. In eTRM the CPUC Support Tables are synchronized with DEER every night between 12:00 a.m. PST and 2:00 a.m. PST.

Custom Report is a report created by a User. See also measure report and permutations report.

Dependencies refers to the relationships between one or more objects to create permutations for a specific measure version within the eTRM application.

> **Upward Dependency** is the relationship between an object and one or more objects it depends upon.

> **Downward Dependency** is the relationship between an object and one or more objects that depends upon it.

> For example, an upward dependent of the Gross Savings Installation Adjustments shared value table is the GSIA ID parameter, an object the table depends upon. A downward dependent of the GSIA value table is measure version that uses the table (SWSV001-02, for example).
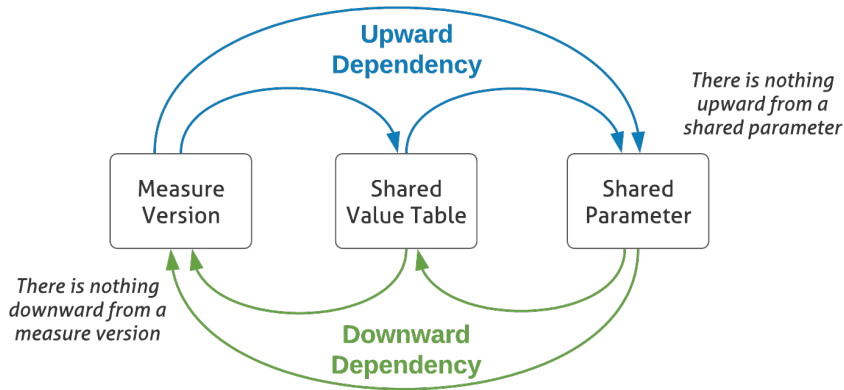
Figure 1. Dependencies

Development Role is another term for measure contributor role.

Exclusions are ineligible combinations of measure parameters for which permutations should not be calculated.

Implementation Code is a unique identifier that a program administrator (PA) assigns to a measure permutation or set of permutations that are eligible for programs in their service area. Implementation codes and associated permutation data enables a User to identify measure offerings, delivery channels, and eligibility period established by each PA.

Measure is one or more changes in equipment or operating practices that improves the efficiency of energy use or reduces electricity demand.

Measure Catalog is the listing of all published measures that are viewable by all Base Users.

Measure Characterization describes the baseline and measure case features of a measure, explains the methodologies to estimate impacts and incremental measure costs, and provides citations and links to references to supporting studies and other documentation.

Measure Data is data that is associated to a specific measure version. Data are generated via parameters, value tables, calculations, and measure properties. The eTRM then presents these data through a permutation report or a measure report.

Measure Offering is represented by a unique combination of measure determinants that are specifically defined for each measure. A high-efficiency clothes washer measure, for example, might include numerous measure offerings defined by combinations of washer configuration (front or top loading) and tub capacity.

Measure Package (formally referred to as "workpaper") is "the energy efficiency measure documentation that is needed to make a deemed energy efficiency claim. This includes but is not limited to: a narrative which describes the baseline and energy efficient case features of the energy saving technology, describes the methodologies to estimate energy impacts and incremental measure costs, provides citations and links to references and other supporting documentation, provides unit savings calculations and values for all combinations of the technology specific parameters."[1]

Measure Report is a listing of measure data. See also custom report and shared reports.

Measure Version is a unique presentation of a measure, distinguished from other versions of the same measure by definitions of baseline and/or measure offerings, parameter values, key input assumptions, methodology to estimate per unit impacts and/or costs, etc. A common driver for a new measure version is a code change, regulatory directive, or policy change. See statewide measure ID for presentation of measure version number.

Permutation is a unique combination of parameters for which energy consumption, demand, and/or impacts are calculated. The permutations of a measure version are defined by a combination of selected shared and measure-specific parameter. Differences in electricity consumption, demand, cost, or useful lifetime require separate permutations. For example, building location is a determinant of the energy and demand of an HVAC measure. Permutations would therefore vary by building location.

Parameter is a variable or data field that is a defining characteristic of measure energy consumption or demand, such as building type or building vintage. A set of parameters are used to represent Permutations that qualify energy and demand impacts and costs. See also shared parameter.

Parameter Label is a distinct name of a specific parameter. For example, a parameter label for the "Building Type" parameter is "DMo" or "double-wide mobile home". For a measure version, all the associated parameter labels are selected for each parameter field and these parameter labels are what define each permutation row.

Permutations Report is a listing of a set of permutations for one or more measures. See also All Permutations Report.

Program Administrator is an entity tasked with the functions of portfolio management of energy efficiency programs.[2]

Published Measure Version is a measure version that is approved to be viewed and its data can be accessed by all Base Users.

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[1] California Public Utilities Commission (CPUC). 2021. *Resolution E-5152. Approval of the Databases for Energy-Efficiency Resources updates for Program Year 2023 and revised version for Program Years 2022 and 2021.* August 5. Pp 7-8.

[2] California Public Utilities Commission (CPUC), Energy Division. 2020. *Energy Efficiency Policy Manual Version 6.* April.

Reference is the research or data that substantiates a value or claim.

Reference Citation provides bibliographic information that uniquely identifies a reference.

Reference File refers to the electronic form of a reference in the eTRM.

Reference Library is the collection of all references in the eTRM.

Reference Number is a unique identifier of a reference in the eTRM reference library.

Reference Tag or **Reference Badge** is the insertion symbol that denotes a reference in the measure characterization or a value table.

Shared Data is data that is used to calculate impacts or costs for more than one measure and includes shared measure parameters and shared value tables.

Shared Data Library refers to the page in the eTRM to access all shared data.

Shared Parameter is a parameter used by multiple measures in the eTRM. See also parameter.

Shared Report is a report created by a System Administrator or CPUC Administrator that can be accessed by all Users. See also measure report and permutations report.

Shared Value Table is a value table used by multiple measures in the eTRM. See also value table.

Statewide Measure ID is the unique identifier for a statewide measure. The nomenclature is presented below:

Example	SWAP001-01-01				
Statewide Designator	**Use Category**	**Measure Number**	**Version/Minor Version Designator**	**Version Number**	**Minor Version Number**
SW	AP - Appliance & Plug Loads BE - Building Envelope CR - Commercial Refrigeration CA - Compressed Air FS - Food Service HC - HVAC LG - Lighting MI - Miscellaneous PR - Process RE - Recreation SV - Service WB - Whole Building WH - Service & Domestic Hot Water WP - Water Pumping / Irrigation	Automatically assigned, starts at 001 for the first measure in the end use category.	-	Automatically assigned, starting at 01 for the first "Published" version of a measure package (MP).	Automatically assigned, starting at 01 for the first created draft version of a measure package (MP).

Status refers to the stage of development, review, or approval of a measure version. All Base Users can view measure versions with a POU Ready and CPUC Approved status.

Subscription is a User's enrollment to receive announcements or links to reports via email at a specified interval.

> **Announcement subscription** is an opt-in action that allows Base User to receive an email notification of measure, shared parameter, or shared value table Announcement. Also see Announcement.

> **Measure log subscription** is an opt-out (all measure contributors are originally opt-in) action that allows measure contributors to receive an email notification of any update to the measure log.

Supporting Data includes the parameters, value tables, and exclusions for a measure version.

Unpublished Measure Version is a measure version that is a measure version that is not approved to be viewed and its data cannot be accessed by all Base Users.

Value Table is a table of numeric or non-numeric variables. In the eTRM value tables are used to assign specific numeric values to calculations and to define values for measure tracking and reporting purposes. See also shared value table.

Version History is the listing of all versions created for a specific measure. A Base User can only see published versions in the measure version history.
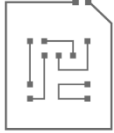
How To

Each of the sections below provide a brief video clip showing how to complete a specific eTRM task. Click the following link for a YouTube playlist with all of the videos in this User Guide: User Guide Playlist for Base Users.

Getting Started

To get started, navigate to http://www.caetrm.com and follow the steps below to register for a User account.

Register to be an eTRM User
To view or use the eTRM a User must first register for an account.
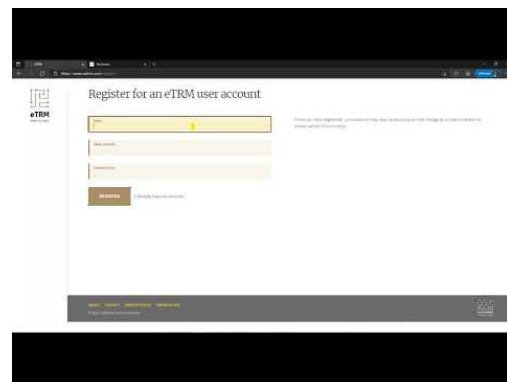
Set or Reset Your Password
After registering for an account, the User will receive a confirmation email with a link to verify the registered email address and set the account password.
A User can also reset their password at any time by following the steps in this video.
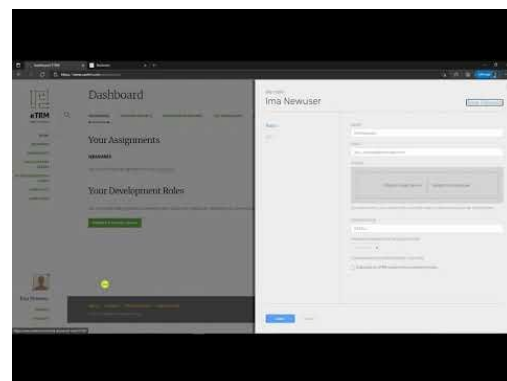
Overview of the eTRM Dashboard
This video provides a general overview of the eTRM Dashboard.
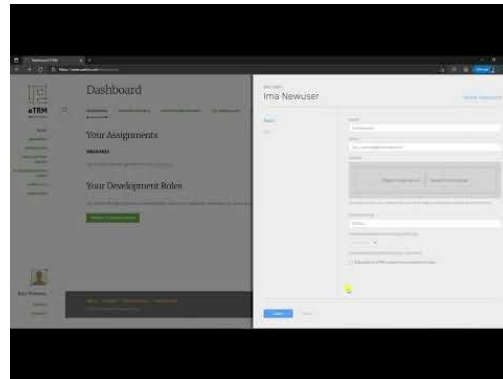
Change Your Notification Settings
This video outlines how to modify your communication preferences for the eTRM.
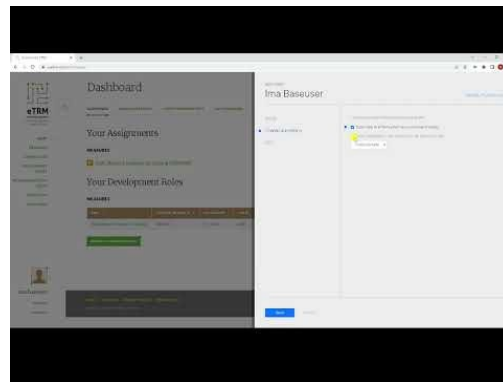
Exploring

The following videos describe how to navigate within the eTRM application.

How to Search
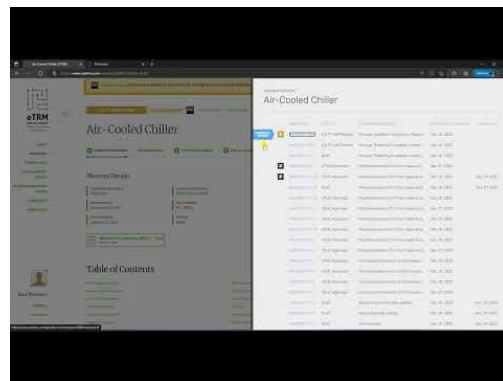This video provides an overview of search capabilities within the eTRM.
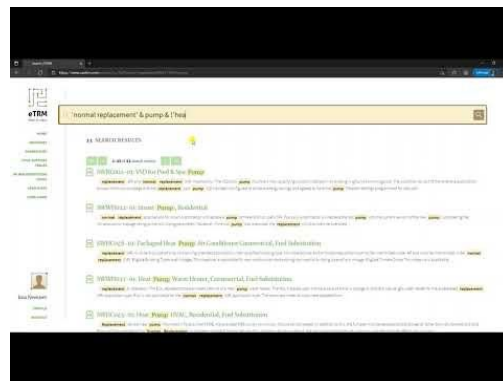
Find a Measure
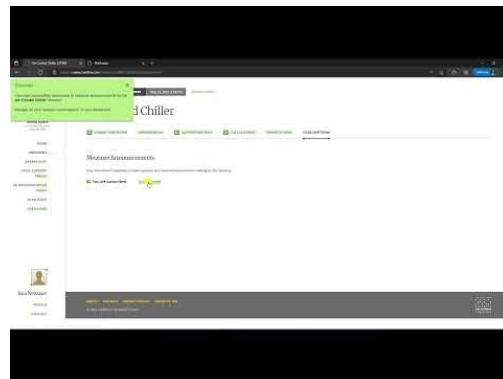This video outlines how to search for a published measure in the measure catalog.
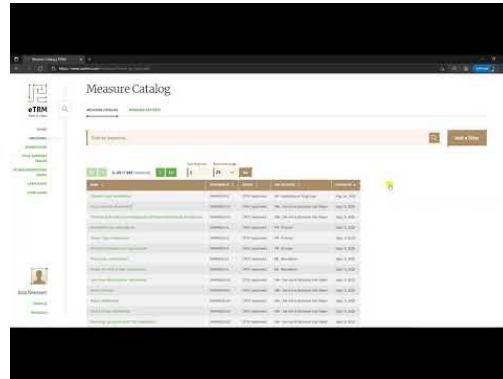
Find a Measure Version History
This video explains version history and how to access different published measure versions in the eTRM.

Subscribe to a Measure
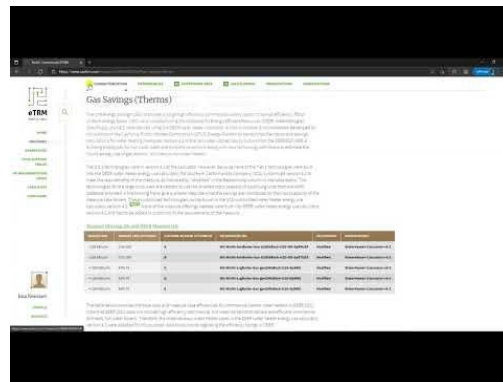This video shows how to subscribe to a measure and how to view your current subscriptions.

Find a Parameter or Value Table

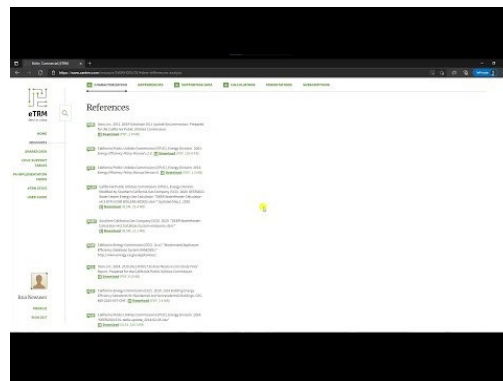This video shows how to find the parameters and value tables associated with a measure.
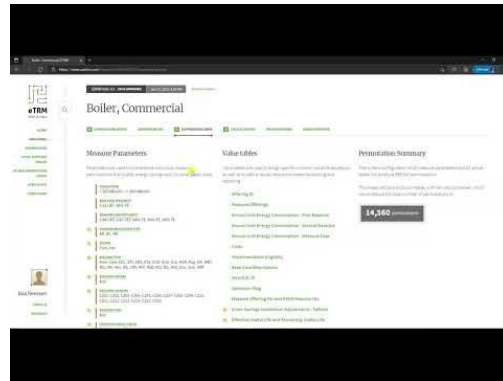
Find a Measure Characterization Field

This video shows how to navigate to the measure characterization of a measure.
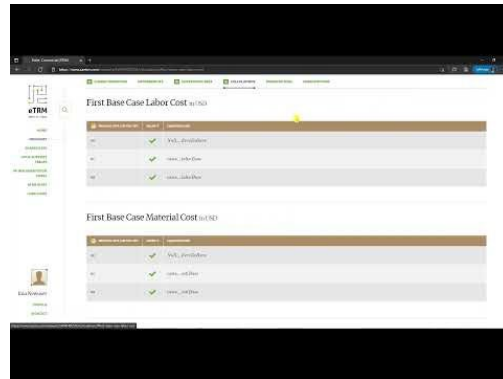

Find a Reference

This video shows how to locate and download references associated with a specific measure.
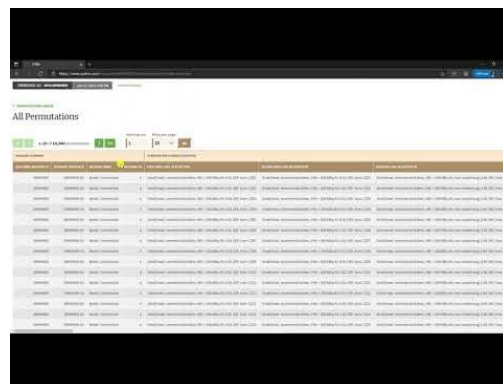
Find a Calculation

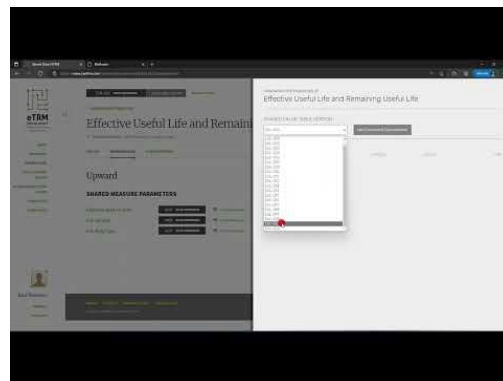This video shows how to find the calculations associated a measure.

Find Measure Permutations

This video shows how to find measure permutations.

Upward and Downward Dependencies of Measures, Value Tables, and Parameters

This video explains the dependencies tab in the eTRM application.

Reporting

An eTRM User can create measure reports and permutation reports. A measure report allows a User to view selected fields for multiple measures simultaneously. A permutation report allows a User to view a subset of measure permutations.

Customized measure and permutation reports are visible to the User who created them. A System Administrator or CPUC Administrator can create shared reports that all Base Users can view.
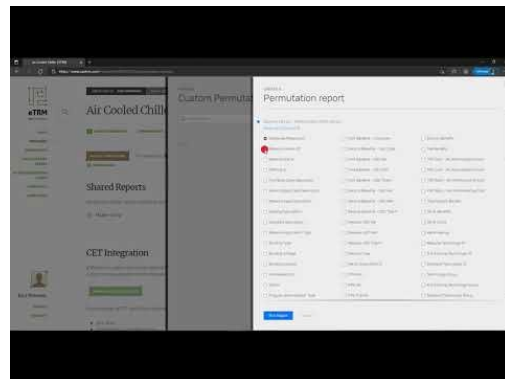
Create a Customized Measure Report
This video introduces the measure report feature and outlines how to create a customized measure report.
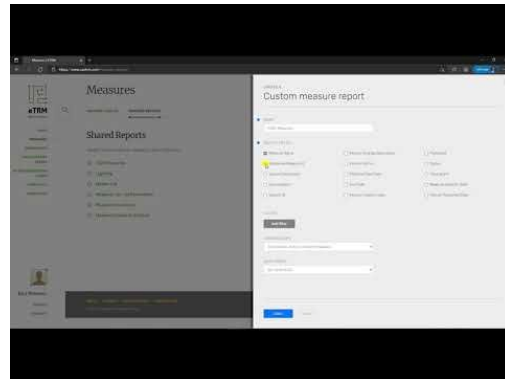
Create a Customized Permutations Report
This video introduces the permutation report feature and outlines how to create a customized permutation report.
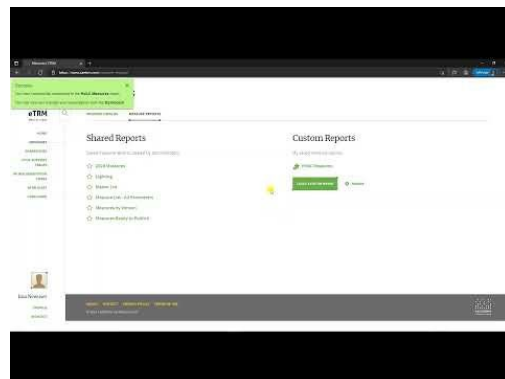

Bookmark and Subscribe to a Report
A User can bookmark and subscribe to measure and permutation reports.

Bookmarking allows a User to easily access the report from the "Measure Reports" section of the Dashboard.

Subscribing allows a User to receive a monthly or quarterly email that contains the results of the report.

Access the Measure Package Review Summary Report

This video explains how to find and download the Measure Package Review Summary Report. This is a retrospective report that displays the measure versions for which the CPUC has issued a disposition (Approved, Rejected) or that were Under Review during the previous calendar month
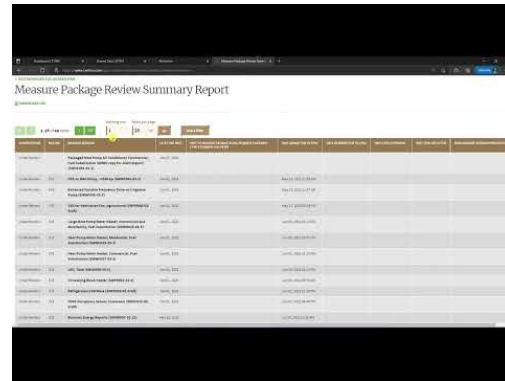

Downloading Data and Information

The videos below explain how a Base User can export data from the eTRM for customized purposes or use in other data systems.

### Download the Measure Package and Characterization

This video shows hot to download the Measure Package and Characterization for measures. 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).
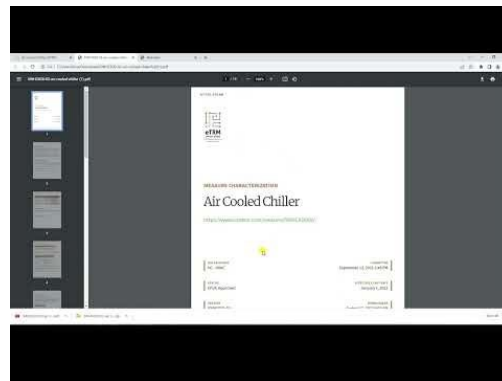
Download Files for CET Input

This video explains how to download files that can be uploaded into the CET for a single measure and for multiple measures in an end use category.

Users should consult CET documentation for specific instructions on how to use the CET.
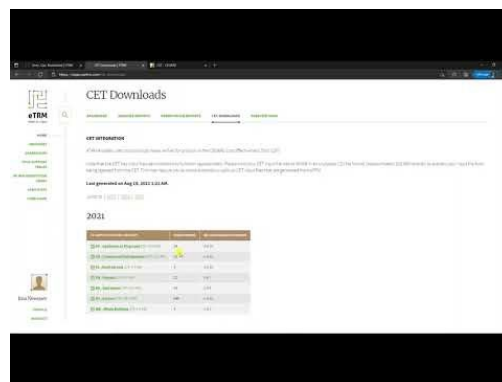
Download the All Permutations Report

The All Permutations Report is a downloadable listing of all permutations of all published measures in the eTRM. This video explains how to find and download the All Permutations Report.

The All Permutations report falls into two, mutually exclusive groups (note that each report may contain more than one file since there is a limit of 1 million rows per ,csv file):
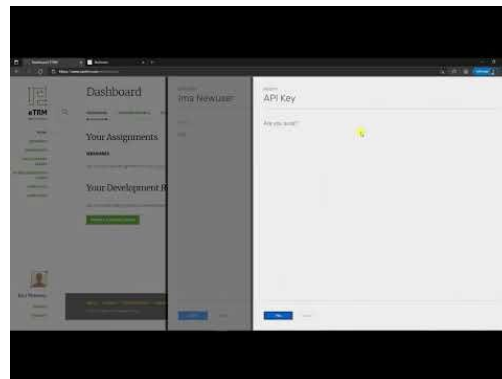
Expired – Includes all permutations that expired before Jan 1st of the current program year.

Active or Future – Includes all permutations that are active as of Jan 1st of the current program year or that will be active in the future.
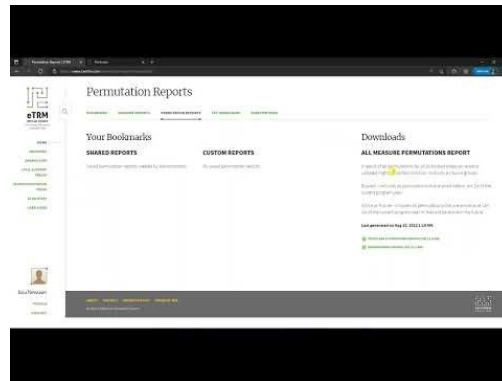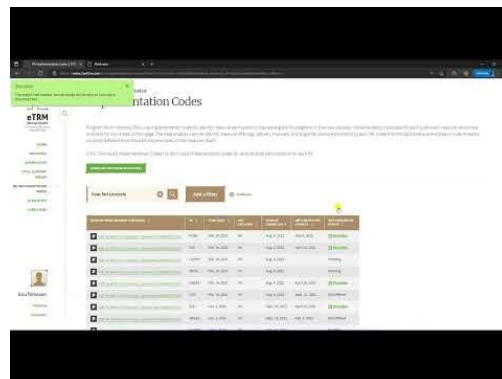

Generate an API Key

This video explains how to generate a unique API Key to enable consumption of eTRM data in external applications.

Check if PA Implementation Codes are Available for Download

This video explains how to find and download implementation codes and associated permutation data for measure version permutations that are eligible in a specific PA service area.

CPUC-Approved Parameters and Values

This section will familiarize Base Users with the CPUC Support Tables and how the eTRM Shared Data Library is synchronized to contain CPUC-approved current and future values.

Learn about CPUC Support Tables
This video introduces the CPUC Support Tables, how the eTRM Shared Data Library is updated from the CPUC Support Tables and explains the CPUC Change Log.

Measure Contributors

This section is intended for a Base User who is/will be assigned one of the following measure contributor roles: Measure Developer, Measure Reviewer, Measure Manager, Cal TF Staff Reviewer, CPUC Reviewer, and CPUC SME Reviewer.

Click the following link for a YouTube playlist with all of the videos that are currently available for Measure Contributors, the complete list of videos in the Measure Contributors Playlist is below:

Assign a User or Take Assignment of a Measure

Access and Use the Measure Log and Characterization Review Comments

Import and Update Dependencies

Create a Value Table

Configure Value Table Columns in a Characterization Section

Add PA Implementation Codes to a Measure

System and CPUC Administrators

This section is intended for System and CPUC Administrators.

Click the following link for a YouTube playlist with all of the videos that are currently available for System and CPUC Administrators, the complete list of videos in the Measure Contributors Playlist is below:

Change Measure Start and End Dates

How to Publish a Measure

Add and Maintain Shared Data