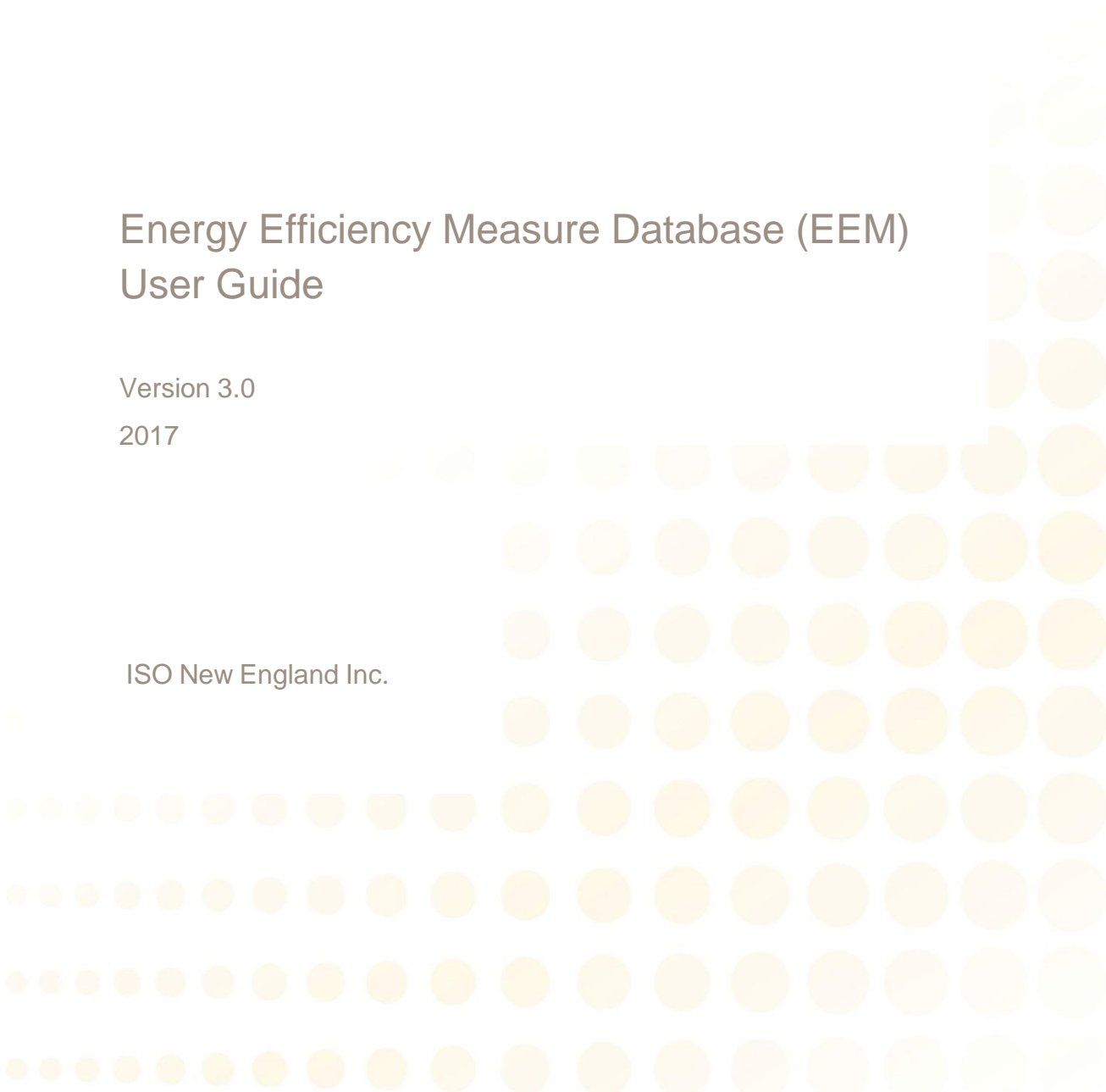




Energy Efficiency Measure Database (EEM) User Guide

Version 3.0
2017

ISO New England Inc.





About this user guide

The Energy Efficiency Measure Database User Guide is grouped into independent sections arranged by topic and user role. This guide details the EEM Database user interface for Lead Participants to create, view and edit their energy efficiency measure information. It is not necessary to read the guide from beginning to end.

You may:

- Select a topic from the [How to:](#) list on page 8.
- Start with an [Overview](#) on page 9.
- Select a [Relevant EEM Role](#) from the list on page 65.



CAUTION

- ❖ Though we strive to maintain this document, the screen shots in this guide may not fully reflect the current production environment.
- ❖ Do not rely only on this user guide for information or requirements regarding demand resources and demand assets registration or market participation as the Market Rule and Manuals serve that function.
- ❖ Please consult:
 - the *ISO New England Inc. Transmission, Markets and Services Tariff* (“Tariff”) at:
<https://www.iso-ne.com/participate/rules-procedures/tariff>:
 - Section I – General Terms and Conditions
 - Section I.2.2 – Definitions
 - Section III – Market Rule 1
 - Section III.13 – Forward Capacity Market
 - the relevant *ISO New England Manuals* at:
<https://www.iso-ne.com/participate/rules-procedures/manuals>
 - M-RPA Registration and Performance Auditing
 - M-MVDR Measurement and Verification of Demand Reduction Value from Demand Resources
 - M-20 Forward Capacity Market (FCM)
 - M-28 Market Rule 1 Accounting
 - ISO New England Operating Procedures at:
<https://www.iso-ne.com/participate/rules-procedures/operating-procedures>
 - ISO New England Planning Procedures at:
<https://www.iso-ne.com/participate/rules-procedures/planning-procedures>
 - ISO New England training materials at:
<https://www.iso-ne.com/participate/training>

Change Summary

Revision	Date	Comments
Version 1.0	January 14, 2015	Initial release
Version 2.0	February 24, 2015	Updates to reflect first release to production environment
Version 3.0	June 1, 2017	Updates including CSV Upload capability and requirement that EEM is source of record for monthly reporting

Table of Contents

1	Overview of the Energy Efficiency Measure Database	7
2	How to:	8
2.1	Get started	8
2.1.1	Overview	9
2.1.2	Accessing the Energy Efficiency Measure Database User Interface	10
2.1.3	EEM User Interface	13
2.2	Manage Energy Efficiency Measures.....	14
2.2.1	Measure Detail Overview and Concepts	15
2.2.1.1	Versioning.....	15
2.2.1.2	First Month in Market/Measure Expiration Date	16
2.2.1.3	Measure Detail Modification State.....	16
2.2.1.4	ISO Approval Process/Pending Measure Detail Records	16
2.2.1.5	No Deleting of a Measure Detail.....	17
2.2.2	Add Measure Detail	18
2.2.2.1	Manual Entry	18
2.2.2.2	CSV Upload	24
2.2.3	Measure Detail Search	29
2.2.4	View Measure Detail.....	34
2.2.5	View Measure Detail History.....	37
2.2.6	Update Measure Detail	40
2.2.6.1	Manual Entry	40
2.2.6.2	CSV Update.....	46
2.2.7	View Pending Changes	51
2.2.8	View Pending Measure Detail	54
2.2.9	CSV Download.....	57
2.3	Demand Reduction Reporting	60
2.3.1	Demand Reduction Reporting Requirement	60
2.3.2	Demand Reduction Supporting Document	60
3	Customer Support.....	62
3.1	By Internet	62
3.2	By Telephone	62
3.3	By Email	63
3.4	Ask ISO.....	63
4	Links.....	64
4.1	ISO New England Home Page.....	64
4.2	ISO New England Training Page	64
4.3	ISO New England FAQ Page	64
4.4	SMD Site for ISO Applications	64
4.5	SMD Site for ISO Sandbox Applications.....	64
4.6	ISO New England Glossary and Acronyms	64
5	Reference Tables.....	65
5.1	Table 1: EEM Security Roles	65

5.2 Table 2: EEM Fields, Definitions and Validation Rules..... 66
5.3 Table 3: Sectors/End Uses 69

1 Overview of the Energy Efficiency Measure Database

The Energy Efficiency Measure Database (EEM) records and maintains detailed measure level data for On-Peak and Seasonal Peak Demand Resources participating in the Forward Capacity Market with energy efficiency measures. This data is utilized on an ongoing basis by ISO-NE for existing capacity qualification, performance verification and auditing, trending and analysis, system planning, and market monitoring.

EEM is available to Lead Participants as an internet-based tool for:

- Entering new energy efficiency measure data
- Updating existing energy efficiency measure data
- Generating specific reports relating to energy efficiency measure data

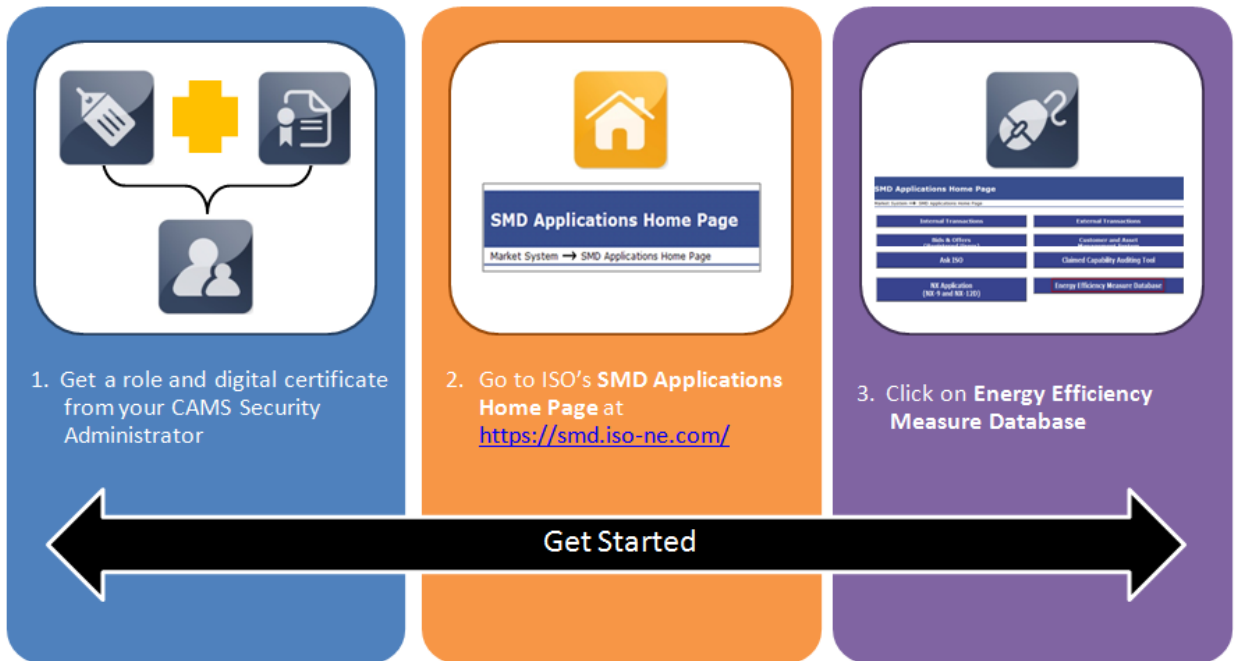
Note that beginning June 1, 2017, EEM became the primary source of energy efficiency On-Peak and Seasonal Peak asset reduction values for monthly reporting in CAMS.

Users can interface with EEM via either the user interface or via Web Services. This user guide covers the EEM user interface system functionality. Web Services functionality is covered in the following documents available on ISO New England's website at:
<https://www.iso-ne.com/participate/support/upload-download>.

- Energy Efficiency Measures (EEM) Web Services Data Exchange Specification and
- EEM Web Services API Documentation (WADL, XSD)

2 How to:

2.1 Get started



This section applies to the following EEM roles:

- ✓ External EEM Maintainer
- ✓ External EEM Viewer

See Table 5.1: [EEM Security Roles](#) (page 65) for a summary of user roles

This section covers the following topics:

- ❖ [Overview](#) (page 9)
- ❖ [Accessing the Energy Efficiency Measure Database](#) (page 10)
- ❖ [EEM User Interface](#) (page 13)

2.1.1 Overview

2.1.1.1 CAMS Security Administrator (SA)

- Access to EEM is managed through the Customer and Asset Management System (CAMS).
- Your company's Security Administrator (SA) is responsible for assigning roles per your company's internal procedures and controls.
- The SA is also responsible for issuing digital certificates to users, as required (e.g., a customer may already have a digital certificate if they already have access to another ISO SMD application).
- For details on managing access, SAs can refer to the "CAMS User Guide for Digital Certificates" which is available by contacting ISO-NE Customer Support.

2.1.1.2 Browser Navigation

- ISO recommends using the navigation buttons within EEM. Navigation using the browser Back button or the keyboard backspace will take you out of EEM and back to the previously opened web page.

2.1.1.3 Online CAMS Frequently Asked Questions

- See the "Customer and Asset and Management System (CAMS)" section on ISO New England's website FAQ page, located at:
<https://www.iso-ne.com/participate/support/faq/cams>

2.1.1.4 ISO New England Glossary and Acronyms

- For a full list of ISO New England terms and acronyms, see the Glossary and Acronyms listing on ISO New England's website at:
<https://www.iso-ne.com/participate/support/glossary-acronyms>

2.1.2 Accessing the Energy Efficiency Measure Database User Interface

- **I do not have an EEM role or have not installed a digital certificate. How do I access the Energy Efficiency Measure Database user interface?**

To get an EEM role and digital certificate:

1. Contact your company's Security Administrator (SA) to request access to EEM.
 - a. To learn who at your company is an SA, contact ISO New England Customer Support at (413) 540-4220 or via e-mail at custserv@iso-ne.com.
2. Your SA will assign you a specific EEM role.
3. Your SA will issue you a digital certificate if you do not already have one.
4. ISO New England will email you instructions for installing the certificate on your computer.
 - a. See "Install a digital certificate" in the CAMS User Guide for Digital Certificates which is available by contacting ISO-NE Customer Support or your SA.
 - b. You will need the "PIN #" or "Pickup Password" from your SA to complete the installation process.
5. After you have installed your digital certificate, you may access the EEM database through the SMD Applications Homepage or the SMD Applications Sandbox Homepage based on your EEM role.

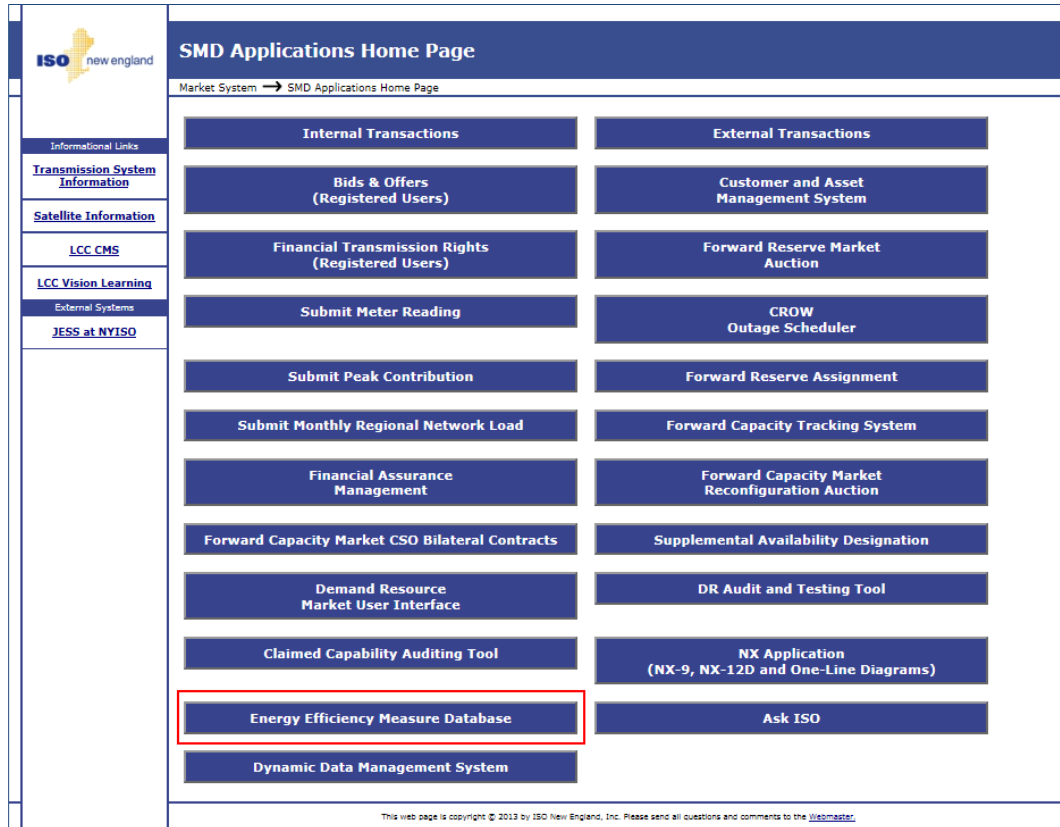


IMPORTANT

- ❖ It may take up to two hours for the system to implement a new CAMS role.

- **I have an EEM role and have installed my digital certificate. How do I access the Energy Efficiency Measure Database user interface?**

1. For the EEM Production environment navigate to the ISO New England SMD Applications Home Page at: <https://smd.iso-ne.com/>.
2. Click on “Energy Efficiency Measure Database”:



IMPORTANT

- ❖ The EEM Database Sandbox is a separate and independent environment that requires separate EEM roles and is accessed via the following link: <https://sandboxsmd.iso-ne.com/>.
- ❖ The SMD Applications Sandbox Home Page uses different fonts, shapes and a red background to differentiate it from the Production SMD Applications Home Page shown above.

3. The Energy Efficiency Measure Database Search screen displays by default:

When the Search screen is opened before any Measure Details have been added to the database, it will be blank as shown above. Once Measure Details have been added, the Search screen will display the first page of all the Measure Details belonging to the Lead Participant matching the certificate used.

2.2 Manage Energy Efficiency Measures

This section applies to the following EEM roles:

- ✓ External EEM Maintainer
- ✓ External EEM Viewer

This section covers the following topics:

- ❖ [Measure Detail Overview and Concepts](#) (page 15)
- ❖ [Add Measure Detail](#) (page 18)
- ❖ [Measure Detail Search](#) (page 29)
- ❖ [View Measure Detail](#) (page 34)
- ❖ [View Measure Detail History](#) (page 37)
- ❖ [Update Measure Detail](#) (page 40)
- ❖ [View Pending Changes](#) (page 51)
- ❖ [View Pending Measure Detail](#) (page 54)
- ❖ [CSV Download](#) (page 57)

This section of the guide explains the processes for managing energy efficiency Measure Details within the user interface. Topics covered include creating and updating Measure Details, including those that require ISO-NE approval, the process of searching for Measure Details, and producing CSV file downloads based on the search results. To access EEM, see “[Accessing the Energy Efficiency Measure Database](#)” on page 10.

2.2.1 Measure Detail Overview and Concepts

A Measure Detail is a component of an existing On-Peak or Seasonal Peak Measure registered in the Customer and Asset Management System (CAMS). It contains detailed measure level data that better describes its part of the CAMS Measure. A single CAMS Measure is generally comprised of many Measure Detail records stored in EEM. There are several key concepts that are important to understand when creating or maintaining a Measure Detail.

2.2.1.1 Versioning

There will only be one version of a Measure Detail effective at any given time. Each Measure Detail version has a Record Begin Date which is when the set of data associated with that version became effective, and a Record End date which is the end of the effective period for that set of data. The Record Begin Date is set to the system time when a Measure Detail record is created or updated. When an update is done, the existing record will have its Record End Date set to the Record Begin Date of the new set of Measure Detail data. This versioning scheme provides the ability to store a searchable history of changes to a Measure Detail. The History tab will display the various versions associated with the Measure Detail (see [“View Measure Detail History”](#) on page 37).

Measure Detail ID	Record Begin Date	Record End Date	LP Measure Detail ID	Measure Detail Name	Installation Date	First Month in Market	Life	Measure Expiration Date	Summer kW	Winter kW	Measure (ID)	Program Name	End Use	Retail Customer Name	Aggregat Count	Updated By
XXXXXX	01/09/2015		XXXXXXXX ...		11/12/2013	09/01/2014		XXXXXXXXXX	5.4	4	XXXXXXXXXX ...	XXXXXXXXXX ...	Lighting		1	XXXXXXXXXX ...
XXXXXX	01/06/2015	01/09/2015	XXXXXXXXXX ...		11/12/2013	09/01/2014		XXXXXXXXXX	5.4	4	XXXXXXXXXX ...	XXXXXXXXXX ...	Lighting		1	XXXXXXXXXX ...
XXXXXX	12/01/2014	01/06/2015	XXXXXXXXXX ...		11/12/2013	09/01/2014		XXXXXXXXXX	5	4	XXXXXXXXXX ...	XXXXXXXXXX ...	Lighting		1	XXXXXXXXXX ...



IMPORTANT

- ❖ Record Begin Date and Record End Date are independent of First Month in Market and Measure Expiration Date, which are driven by Installation Date and Measure Life.
- ❖ The History tab will display the versions of the Measure Detail.
- ❖ The As of Date in the search screen may be used to view a specific version. See [“Measure Detail Search”](#) on page 29 for instructions on searching measure detail data.

2.2.1.2 First Month in Market/Measure Expiration Date

First Month in Market (also known as First Month of Savings) is determined by the EEM system at the time of Measure Detail creation by taking the greater of:

- The first of the month following the user provided Installation Date, or
- The date found by subtracting 70 days from the current system time and taking the top of the month within which this date falls.

These calculations model the customer data submission deadlines for initial settlement and data reconciliation (e.g., resettlement).

The Measure Expiration Date is determined by the EEM system by the following process:

- The Measure Life in years (one decimal point allowed) is converted to months. The whole number of months is used and any decimal values are truncated. For example: 1.9 years x 12 = 22.8 months = 22 months in the market.
- To get the Measure Expiration Date, the calculated number of months is added to the Installation Date and recorded as the first of the month. This is the Measure Expiration Date and the month is the last month in market.
- Example:
 - Measure Detail installed June 25, 2015 with a 1.9 year life
 - July 2015 is First Month in Market
 - Measure Expiration Date is April 1, 2017
 - April 2017 is last month in market
 - 22 months of performance in the FCM

The Measure Expiration Date and the First Month in Market will be recalculated and may change if a user modifies the Installation Date.

2.2.1.3 Measure Detail Modification State

Measure Details can be in two modification states during their lifetime: Open or Closed, as defined below. These states are used to determine whether modifications to certain fields (such as Monthly kW Summer and Monthly kW Winter) require ISO approval.

- **Open:** The resettlement data correction deadline for the First Month in Market has *not* passed.
- **Closed:** The resettlement data correction deadline for its First Month in Market has passed.

2.2.1.4 ISO Approval Process/Pending Measure Detail Records

In certain cases (Installation Date is more than three years prior to the date of Measure Detail entry, monthly kW Summer or Winter values are being modified for a Measure Detail that is Closed, etc.) the Measure Detail record will be stored in a Pending status. When a Measure Detail is Pending, no further edits can be made and the measure must be reviewed and approved by ISO before becoming effective. Users have the ability to view and cancel Pending records through the User

Interface if additional edits are required. Measure Details or changes to a Measure Detail that are in a Pending status and either cancelled by the LP or rejected by ISO are not searchable through the UI and are not recorded in the Measure Detail History. When an ISO analyst approves or rejects a pending Measure Detail, the ISO analyst will notify the LP of the disposition of the change. (See [“View Pending Changes”](#) on page 51 and [“View Pending Measure Detail”](#) on page 54.)

2.2.1.5 No Deleting of a Measure Detail

Once a Measure Detail is submitted and/or approved in the Production environment, it cannot be deleted from the database. If a Measure Detail is erroneously submitted and/or approved, both the Summer and Winter kW must be set to zero and the Measure Life set to the minimum allowed to remove the contribution of this Measure Detail from all past and future performance and capacity calculations.

2.2.2 Add Measure Detail

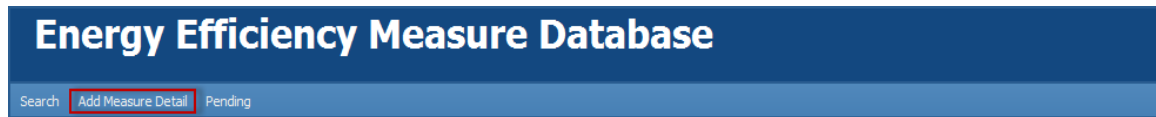
This section covers the process of adding a new Measure Detail to the system.

- ❖ Role that can perform this task:
 - External EEM Maintainer

See Table 2: [EEM Fields, Definitions and Validation Rules](#) on page 66 for an overview of the requirements of every database field.

2.2.2.1 Manual Entry

1. Launch the EEM user interface application. See the “[Accessing the Energy Efficiency Measure Database](#)” section on page 10.
2. Click on “Add Measure Detail” in the menu bar:



3. The Measure Detail screen is displayed and is ready for data entry. Required fields are highlighted in red:

A screenshot of the "Measure Detail" form in the Energy Efficiency Measure Database application. The form is titled "Energy Efficiency Measure Database" and has a navigation bar with "Search", "Add Measure Detail", and "Pending". Below the navigation bar, there are three tabs: "Measure Detail", "Pending", and "History". The "Measure Detail" tab is active. The form is divided into several sections: "Basic", "CAMS Fields", "Retail Customer", "Reference Documentation", and "Misc". The "Basic" section contains fields for Lead Participant, ISO Measure Detail ID, LP Measure Detail ID, Measure Detail Name, Distribution Company, Installation Date, First Month in Market, Measure Life (yrs), Measure Expiration Date, Program Name, Sector/End Use, Custom End Use, Aggregation, Number of Aggregation, Monthly kW Summer, and Monthly kW Winter. The "CAMS Fields" section contains fields for Measure, Asset, Resource, and Load Zone. The "Retail Customer" section contains fields for Retail Customer Name, Street, City, State, and Zip. The "Reference Documentation" section contains fields for Reference Document Name and Measure Reference Code. The "Misc" section contains fields for Date Updated, Updated By, and Comments. The "Updated By" field is populated with "EEM External EEM Maintainer 2 (9999995)". The "Comments" field is empty. The form has a "Submit" button and a "Cancel" button at the bottom right.



IMPORTANT

- ❖ Fields are highlighted in red at the beginning of the creation process to indicate they are required fields for all Measure Detail configurations.
- ❖ Some fields are only required for certain Measure Detail data configurations.
- ❖ If a field becomes required based on the entered data, it will become highlighted in red.

4. Enter data in each field based on following rules and validations:

Basic

- **Lead Participant**: Not editable. Displays Customer Name and ID for logged in external user.
- **ISO Measure Detail ID**: Not editable. System generated after successful creation of Measure Detail. Each ISO Measure Detail ID is unique throughout the EEM database system.
- **LP Measure Detail ID**: Required. Alphanumeric values accepted. Limited to 100 characters. Must be unique to the Lead Participant. Used during the Measure Detail creation process for measures created by either the user interface or uploaded through web services in an attempt to limit duplicate Measure Detail records and provide Participant with a key field to match with their database. The LP Program Manager determines the format the creation of this field. Since the search will return partial matches based on the search string, the LP database administrator must select the format for the creation of this field as well as the search string required for any Measure Detail.
- **Measure Detail Name**: Required. Alphanumeric values accepted. Limited to 100 characters. Special characters such as commas and double quotation marks should not be used.
- **Distribution Company**: Required if Aggregation is 'N' and either Monthly kW Summer or Monthly kW Winter is greater than or equal to 10kW. Only numeric values accepted. Request the numeric code for a specific distribution company through an Ask ISO Issue.
- **Installation Date**: Required. Must be a valid date in MM/DD/YYYY format, after June 16, 2006 – the initial qualification date for the Forward Capacity Market and prior to the current system date. If more than three years prior to the current system date, the new Measure Detail will be put into Pending and will require ISO approval before being applied (see [“ISO Approval Process/Pending Measure Detail Records”](#) on page 16).

- **First Month in Market**: Not editable. System generated using Installation Date and system date. See “[First Month in Market/Measure Expiration Date](#)” on page 16.
- **Measure Life (yrs)**: Required. Must be numeric, with at most one decimal place. Cannot be greater than ISO defined maximum (currently 30 years).
- **Measure Expiration Date**: Not editable. System generated using Installation Date and Measure Life (yrs). See “[First Month in Market/Measure Expiration Date](#)” on page 16.
- **Program Name**: Required. Alphanumeric values accepted. Limited to 100 characters.
- **Sector/End Use**: Required. Value must be chosen from drop-down list. Each Sector has a “Custom Measures” option. See Table 3: [Sectors/End Uses](#) on page 69 for the full list.
- **Custom End Use**: Required if a “Custom Measures” option is chosen for Sector/End Use. Limited to 100 characters.
- **Aggregation**: Required. Limited to ‘Y’ and ‘N’. Defaults to ‘N’. Yes is used when multiple end uses are aggregated into a single Measure Detail.
- **Number of Aggregation**: Required. Only editable if Aggregation value is ‘Y’. Must be greater than zero. Defaults to 1 if Aggregation = N. Rounds to the nearest whole number using standard rounding rules. Limited to seven digits.
- **Monthly kW Summer**: Required. Only numeric values accepted. If Aggregation value is ‘Y’, the kW value divided by Number of Aggregation must be less than 10kW. Entered value is rounded to three decimal places using standard rounding rules.
- **Monthly kW Winter**: Required. Only numeric values accepted. If Aggregation value is ‘Y’, the kW value divided by Number of Aggregation must be less than 10kW. Entered value is rounded to three decimal places using standard rounding rules.

CAMS Fields

- **Measure**: Required. Value must be chosen from a drop-down list. List contains CAMS measures that are On-Peak or Seasonal Peak that belong to the Lead Participant of the logged in user.
- **Asset**: Not editable. System generated based on value chosen in Measure drop-down list.
- **Resource**: Not editable. System generated based on value chosen in Measure drop-down list.
- **Load Zone**: Not editable. System generated based on value chosen in Measure drop-down list.

Retail Customer

- **Retail Customer Name**: Required if Aggregation is ‘N’ and either Monthly kW Summer or Monthly kW Winter is greater than or equal to 10kW. Alphanumeric values accepted. Limited to 100 characters.
- **Street**: Required if Aggregation is ‘N’ and either Monthly kW Summer or Monthly kW Winter is greater than or equal to 10kW. Alphanumeric values accepted. Limited to 50 characters.
- **City**: Required if Aggregation is ‘N’ and either Monthly kW Summer or Monthly kW Winter is greater than or equal to 10kW. Alphanumeric values accepted. Limited to 50 characters.

- **State:** Required if Aggregation is 'N' and either Monthly kW Summer or Monthly kW Winter is greater than or equal to 10kW. Limited to the six New England states. Value must be chosen from a drop-down list.
- **Zip:** Required if Aggregation is 'N' and either Monthly kW Summer or Monthly kW Winter is greater than or equal to 10kW. Must contain exactly five digits.

Reference Documentation

- **Reference Document Name:** Required. Alphanumeric values accepted. Limited to 100 characters.
- **Measure Reference Code:** Required. Alphanumeric values accepted. Limited to 100 characters.

Misc

- **Date Updated:** Not Editable. Generated by EEM using the system date and time of the Measure Detail creation. See "[Versioning](#)" on page 15.
- **Updated By:** Not editable. Generated by EEM using the user name associated with the certificate of the logged in user.
- **Comments:** Optional on data entry but required for data updates. Alphanumeric values accepted. Limited to 4,000 characters.

5. Click the "Submit" or "Cancel" button.

- **Submit:**
 - If there are validation errors, a message will be displayed asking the user to correct the indicated validation errors and try again:

The screenshot displays the 'Energy Efficiency Measure Database' web application interface. The main form is divided into several sections: 'Basic', 'CAMS Fields', 'Retail Customer', 'Reference Documentation', and 'Misc'. The 'Basic' section includes fields for Lead Participant, ISO Measure Detail ID, LP Measure Detail ID, Measure Detail Name, Distribution Company, Installation Date (12/01/2014), First Month in Market, Measure Life (yrs) (22), Measure Expiration Date, Program Name, Sector/End Use (COMMERCIAL - Custom Measures (Large)), Custom End Use, Aggregation (N), Number of Aggregation (1), Monthly kW Summer (33), and Monthly kW Winter (23). The 'CAMS Fields' section includes Measure, Asset, Resource, and Load Zone. The 'Retail Customer' section includes Retail Customer Name, Street, City, State, and Zip. The 'Reference Documentation' section includes Reference Document Name and Measure Reference Code. The 'Misc' section includes Date Updated, Updated By (EEM External EEM Maintainer 2 (09999925)), and Comments. A validation error message box is overlaid on the form, stating 'Please correct the indicated validation errors and try again'. The 'Submit' and 'Cancel' buttons are visible at the bottom right of the form.

- If the entered Installation Date is more than three years prior to the current system date, the new Measure Detail will be put into Pending and will require ISO approval before being applied:

The screenshot shows the 'Energy Efficiency Measure Database' interface. The top navigation bar includes 'Search', 'Add Measure Detail', and 'Pending'. Below this, there are tabs for 'Measure Detail', 'Pending', and 'History'. The 'Measure Detail' tab is active, showing a form with various input fields. The 'Installation Date' is set to 12/01/2010. An 'Info' dialog box is overlaid on the form, displaying the message: 'Placed insert on hold awaiting approval'. The dialog box has an 'OK' button. At the bottom right of the form, there is a 'Cancel' button.

- Otherwise, if there are no validation errors, a message will be displayed informing the user that the data was successfully added and the user will be brought to the Measure Detail tab for the just created Measure Detail:

The screenshot shows the 'Energy Efficiency Measure Database' interface. The top navigation bar includes 'Search', 'Add Measure Detail', and 'Pending'. Below this, there are tabs for 'Measure Detail', 'Pending', and 'History'. The 'Measure Detail' tab is active, showing a form with various input fields. The 'Installation Date' is set to 12/01/2010. An 'Info' dialog box is overlaid on the form, displaying the message: 'Data has been successfully added'. The dialog box has an 'OK' button. At the bottom right of the form, there is an 'Edit' button.

2.2.2.2 CSV Upload

Multiple new Measure Details can be added simultaneously using the CSV Upload function. Up to 50 records may be uploaded at a time.

1. Prepare a file in CSV format for upload. Specify values for column fields in the following order.
 - **CAMS Measure ID**: Required. This must be for an On-Peak or Seasonal Peak Measure belonging to the Lead Participant of the logged in user.
 - **Measure Detail ID**: Leave blank. A system generated number will be provided once the Detail data is successfully uploaded.
 - **Lead Participant ID**: Required. Only numeric values accepted.
 - **LP Measure Detail ID**: Required. Alphanumeric values accepted. Limited to 100 characters. Must be unique to the Lead Participant. Used during the Measure Detail creation process for measures created by either the user interface or uploaded through web services in an attempt to limit duplicate Measure Detail records and provide Participant with a key field to match with their database. The LP Program Manager determines the format the creation of this field. Since the search will return partial matches based on the search string, the LP database administrator must select the format for the creation of this field as well as the search string required for any Measure Detail.
 - **Measure Detail Name**: Required. Alphanumeric values accepted. Limited to 100 characters.
 - **Distribution Company ID**: Required if Aggregation is 'N' and either Monthly kW Summer or Monthly kW Winter is greater than or equal to 10kW. Only numeric values accepted. Request the numeric code for a specific distribution company through an Ask ISO Issue.
 - **Measure Life (yrs)**: Required. Must be numeric, with at most one decimal place. Cannot be greater than ISO defined maximum (currently 30 years).
 - **Program Name**: Required. Alphanumeric values accepted. Limited to 100 characters.
 - **Sector Type**: Required. See Table 3: [Sectors/End Uses](#) on page 69 for the full list of eligible options. Must match one of the options on Table 3 completely, including capitalization.
 - **End Use Type**: Required. See Table 3: [Sectors/End Uses](#) on page 69 for the full list of eligible options. Must match one of the options on Table 3 completely, including capitalization.
 - **Custom End Use**: Required if a "Custom Measures" option is chosen for End Use. Limited to 100 characters.
 - **Aggregation Flag**: Required. Limited to 'Y' and 'N'. Yes is used when multiple end uses are aggregated into a single Measure Detail.
 - **Summer kW**: Required. Only numeric values accepted. If Aggregation value is 'Y', the kW value divided by Number of Aggregation must be less than 10kW. Entered value is rounded to three decimal places using standard rounding rules.
 - **Winter kW**: Required. Only numeric values accepted. If Aggregation value is 'Y', the kW value divided by Number of Aggregation must be less than 10kW. Entered value is rounded to three decimal places using standard rounding rules.
 - **Retail Customer Name**: Required if Aggregation is 'N' and either Monthly kW Summer or Monthly kW Winter is greater than or equal to 10kW. Alphanumeric

- values accepted. Limited to 100 characters.
- **Street:** Required if Aggregation is 'N' and either Monthly kW Summer or Monthly kW Winter is greater than or equal to 10kW. Alphanumeric values accepted. Limited to 50 characters.
 - **City:** Required if Aggregation is 'N' and either Monthly kW Summer or Monthly kW Winter is greater than or equal to 10kW. Alphanumeric values accepted. Limited to 50 characters.
 - **State:** Required if Aggregation is 'N' and either Monthly kW Summer or Monthly kW Winter is greater than or equal to 10kW. Limited to the six New England states. Must contain exactly two letters.
 - **Postal Code:** Required if Aggregation is 'N' and either Monthly kW Summer or Monthly kW Winter is greater than or equal to 10kW. Must contain exactly five digits.
 - **Reference Doc Name:** Required. Alphanumeric values accepted. Limited to 100 characters.
 - **Reference Code:** Required. Alphanumeric values accepted. Limited to 100 characters.
 - **Comments:** Optional for initial entry but required for data updates. Alphanumeric values accepted. Limited to 4,000 characters.
 - **Installation Date:** Required. Must be a valid date in MM/DD/YYYY format after June 16, 2006 – the initial qualification date for the Forward Capacity Market – and prior to the current system date. If more than three years prior to the current system date, the new Measure Detail will be put into Pending and will require ISO approval before being applied (see [“ISO Approval Process/Pending Measure Detail Records”](#) on page 16).
 - **Aggregation Count:** Required. Must be '1' if Aggregation value is 'N'. Must be greater than zero. Rounds to the nearest whole number using standard rounding rules. Limited to seven digits.



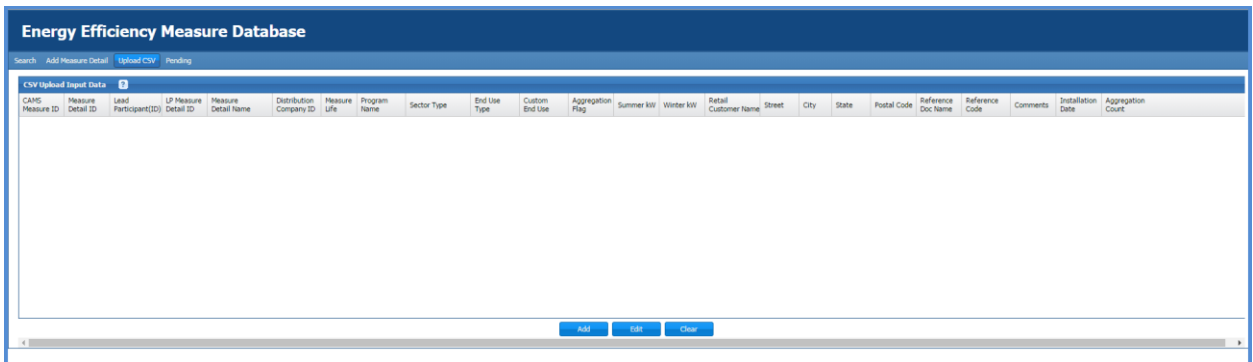
IMPORTANT

- ❖ Do not include column headings in the CSV file that will be uploaded. Doing so will prevent the upload of data.
- ❖ Do not use special characters in the Measure Detail Name field as these can create errors when exporting data from EEM.

2. Launch the EEM user interface application. See the “[Accessing the Energy Efficiency Measure Database](#)” section on page 10.
3. Click on “Upload CSV” in the menu bar:

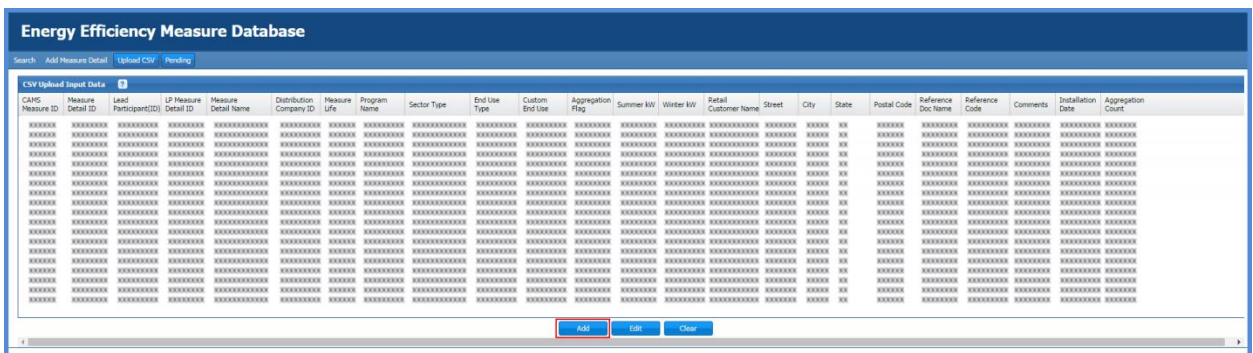


4. The CSV Upload Input Data grid will display, showing the column headings described in step 1 above:

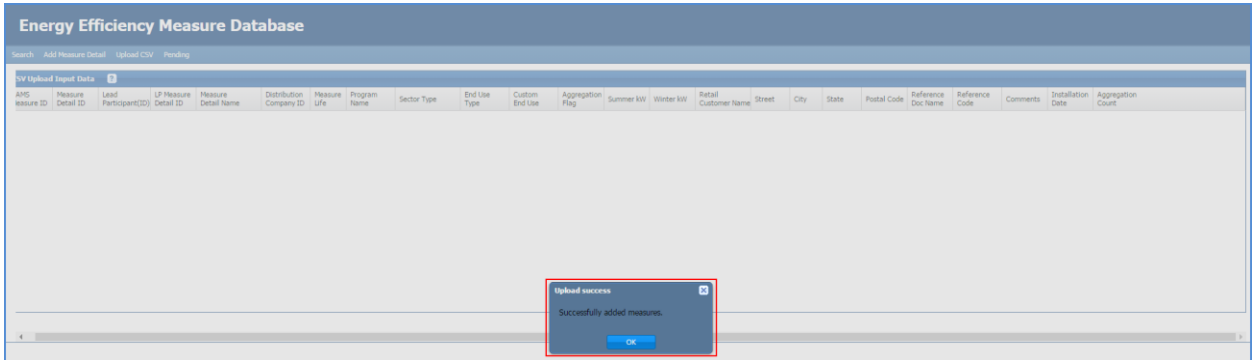


5. Drag and drop the file intended for upload directly into the blank table body on the CSV Upload Input Data screen. The file data will populate on this screen momentarily. Once this has occurred, click the “Add” button.

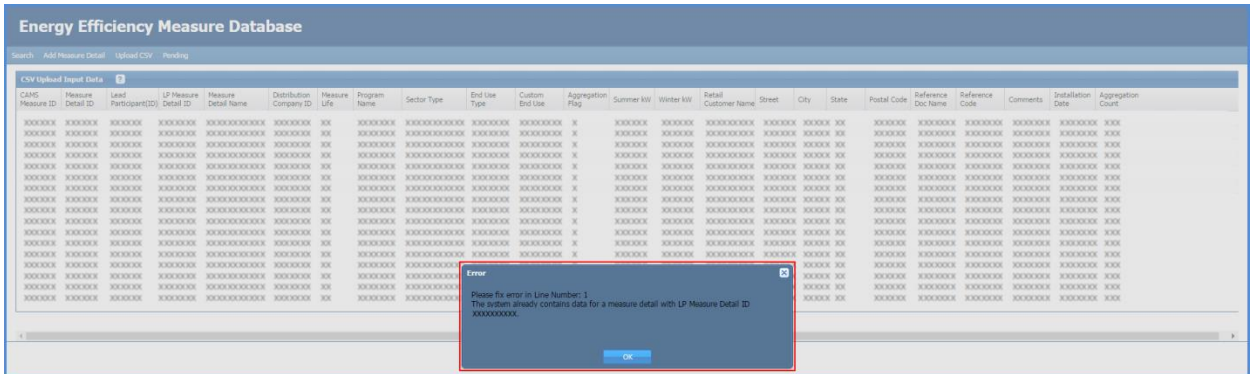
- The “Clear” button may be used at any time to remove uploaded data before it is added to the database.



- If there are no validation errors, all data that was previously in the data upload grid will disappear and a success message will be shown indicating that these Measure Details have been uploaded.

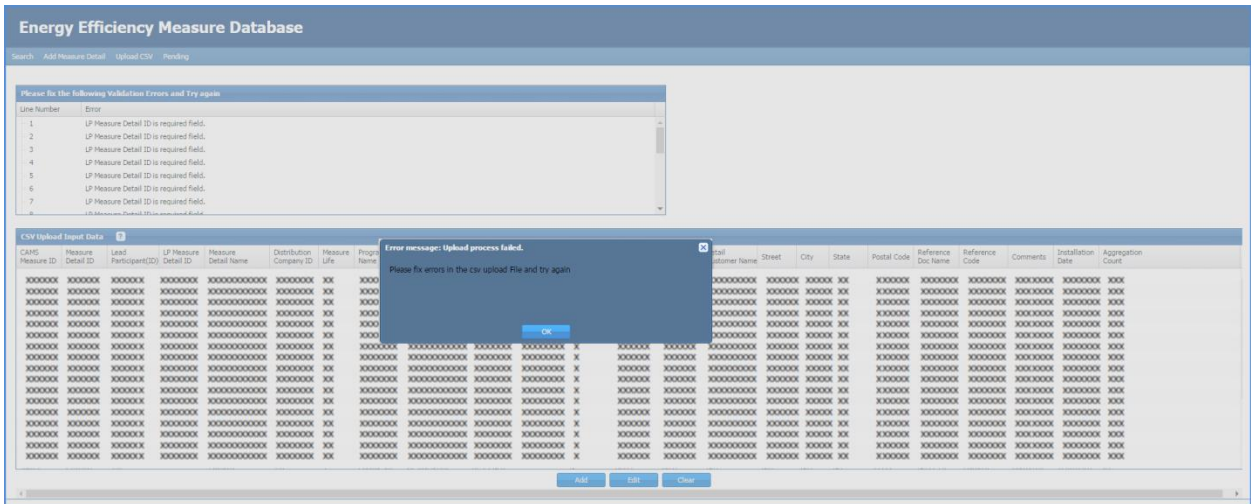


- If there are problems with the file, the user may receive an error message similar to this one:



- Click "OK" to be taken back to the data upload screen.

8. To review any errors in the upload file, select “Edit”. A list of formatting errors will appear above the table of uploaded data, along with an additional error message.



- Click “OK” on the error message to review the list of formatting errors.
9. Data cannot be edited directly on the CSV Upload Input Data screen. When review of the list of errors is completed and the CSV file is corrected, click the “Clear” button to remove all data from the upload grid. Re-upload the entire file, including data that was originally correct, by dragging and dropping the corrected file, then selecting the “Add” button.
 10. If you still receive an error message after correcting all formatting errors and re-uploading a corrected file, there may be validation errors in the EEM database. Some Measure Details may have been uploaded before an error was detected causing this upload to terminate. If you are unable to find an error in your file, or otherwise unable to upload your own file, reach out to ISO New England Customer Service for additional assistance.



IMPORTANT

- ❖ New Measure Detail Data and updates to existing Measure Detail Data must be uploaded in separate files.
- ❖ It is not possible to upload two separate CSV files at the same time. Attempting to drag a second file into the upload window will overwrite the original data.

2.2.3 Measure Detail Search

This section covers the process of searching for Measure Details.

- ❖ Roles that can perform this task:
 - External EEM Maintainer
 - External EEM Viewer
1. Launch the EEM user interface application. See the “[Accessing the Energy Efficiency Measure Database](#)” section on page 10.
 2. The application opens to the Search page by default (note that the As Of Date is prepopulated to the current date by default):

The screenshot displays the 'Energy Efficiency Measure Database' search interface. At the top, there are navigation links: 'Search', 'Add Measure Detail', and 'Pending'. Below this is the 'Search Criteria' section, which includes various input fields: 'As Of Date' (12/11/2014), 'Retail Customer Name', 'Program Name', 'Market Month', 'ISO Measure Detail ID', 'Asset ID', 'Reference Code', 'Min Installation', 'Lead Participant', 'Resource ID', 'City', 'Max Installation', 'LP Measure Detail ID', 'Load Zone ID', 'State', 'Min Expiration', and 'Sector/End Use'. There are 'Search' and 'Reset' buttons below the criteria. The 'Search Results' section features a table with columns: 'Lead Participant(ID)', 'Measure Detail', 'Measure Detail Name', 'Installation Date', 'First Month in Market', 'Life', 'Measure Expl Date', 'Summer kW', 'Winter kW', 'Load Zone(ID)', 'Resource(ID)', 'Asset(ID)', 'Program Name', 'End Use', 'Retail Customer Name', and 'Pending Change'. The table contains 98 rows of data. At the bottom of the table, it shows 'Totals: 590.238 650.084'. There are 'View Detail' and 'CSV' buttons below the table. The page footer indicates 'Page 1 of 9' and 'Displaying 1 - 12 of 98'.

3. Enter a value in one or many of the fields in the Search Criteria section:

This screenshot shows the 'Search Criteria' section of the 'Energy Efficiency Measure Database' search interface, highlighted with a red rectangular box. It includes the same input fields as the previous screenshot: 'As Of Date' (12/11/2014), 'Retail Customer Name', 'Program Name', 'Market Month', 'ISO Measure Detail ID', 'Asset ID', 'Reference Code', 'Min Installation', 'Lead Participant', 'Resource ID', 'City', 'Max Installation', 'LP Measure Detail ID', 'Load Zone ID', 'State', 'Min Expiration', and 'Sector/End Use'. Below the criteria are 'Search' and 'Reset' buttons.

The following fields are available and add to the granularity of the search:

- **As Of Date:** Required. The search will return all Measure Detail versions that are effective as of this date.
- **ISO Measure Detail ID:** ISO's internal identifier that is unique throughout the EEM system. Must be an integer. Search will only return exact matches.
- **Lead Participant:** The only value available in the drop-down list for external users will be the Customer Name and ID for the logged in external user.
- **LP Measure Detail ID:** Company created unique identifier for the Measure Detail. Alphanumeric values accepted. Since the search will return partial matches based on the search string, the LP database administrator must select the format for the creation of this field as well as the search string required for any Measure Detail.
- **Sector/End Use:** The Sector and End Use combination to be included in search. Value chosen must be from drop-down list. Each Sector has a "Custom Measures" option. See Table 3: [Sectors/End Uses](#) on page 69 for a list of Sectors and End Uses.
- **Retail Customer Name:** Name of Retail Customer to be included in search. Alphanumeric values accepted. Search will return partial matches.
- **Asset ID:** ID of CAMS Asset to be included in the search. Must be an integer. Search will only return exact matches.
- **Resource ID:** ID of CAMS Resource to be included in the search. Must be an integer. Search will only return exact matches.
- **Load Zone ID:** ID of CAMS Load Zone to be included in the search. Must be an integer. Search will only return exact matches.
- **Program Name:** Name of Program to be included in search. Alphanumeric values accepted. Search will return partial matches.
- **Reference Code:** Name of Program to be included in search. Alphanumeric values accepted. Search will return partial matches.
- **City:** Name of the City to be included in search. Alphanumeric values accepted. Search will only return exact matches.
- **State:** Name of the State to be included in search. Alphanumeric values accepted. Searches will only return matches to the two letter abbreviation for a New England state.
- **Market Month:** When Market Month is set as a search criterion, the search will return unexpired Measure Detail records with a First Month in Market date that is prior or equal to the month chosen as a search criterion. This search calculates the performance value claimed in CAMS.
- **Min Installation:** When Min Installation is set as a search criterion, the search will return Measure Detail records with an Installation Date that is greater than or equal to the date chosen as a search criterion.
- **Max Installation:** When Max Installation is set as a search criterion, the search will return Measure Detail records with an Installation Date that is less than or equal to the date chosen as a search criterion.
- **Min Expiration:** When Min Expiration is set as a search criterion, the search will return Measure Detail records with a Measure Expiration Date that is greater than or equal to the date chosen as a search criterion.
- **Max Expiration:** When Max Expiration is set as a search criterion, the search will return Measure Detail records with a Measure Expiration Date that is less than or equal to the date chosen as a search criterion.

4. Click the “Search” or “Reset” button.

- **Search:**

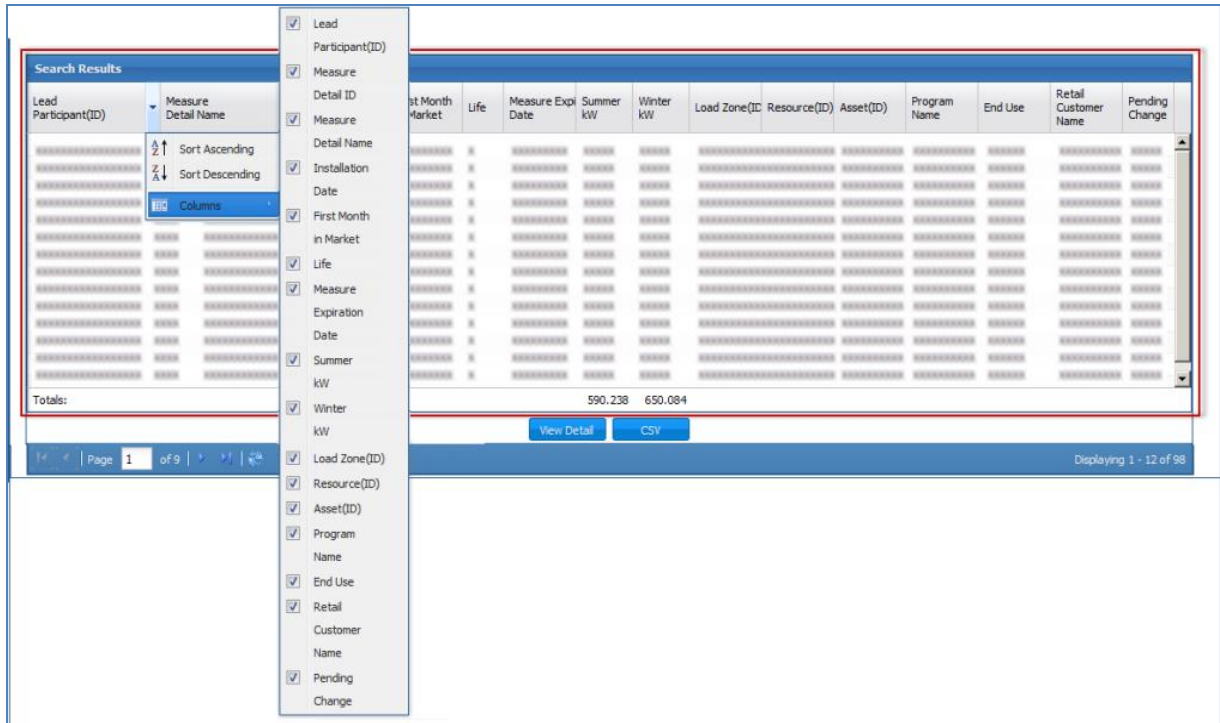
- A search will be performed using the criteria specified. The results of the search will be populated in the Search Results section:

The screenshot shows a table titled "Search Results" with the following columns: Lead Participant(ID), Measure Detail ID, Measure Detail Name, Installation Date, First Month in Market, Life, Measure Expi Date, Summer kW, Winter kW, Load Zone(IC), Resource(ID), Asset(ID), Program Name, End Use, Retail Customer Name, and Pending Change. The table contains multiple rows of placeholder text. At the bottom of the table, there is a "Totals:" row with values 590.238 and 650.084. Below the table are "View Detail" and "CSV" buttons. The footer shows "Page 1 of 9" and "Displaying 1 - 12 of 98".

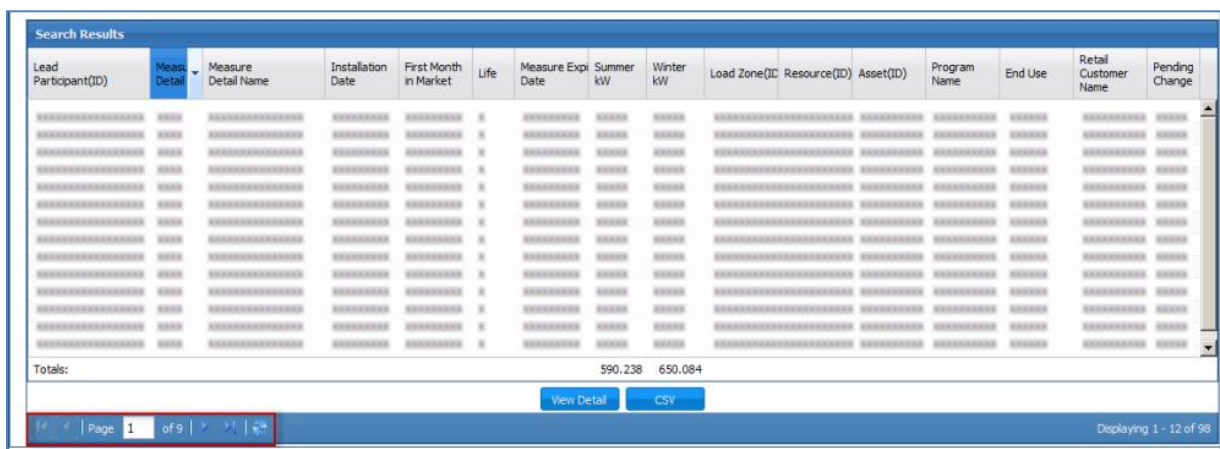
- Below the list of Measure Details is a line labeled “Totals.” The two values displayed are the totals of either the demand reduction or the expired measures total of the Monthly kW Summer and Monthly kW Winter values for all of the Measure Details returned in the search.
- Each column of the search results may be Sorted in Ascending or Descending order by clicking on the arrow that appears in the left of the column header if the mouse cursor is moved over it:

This screenshot is identical to the previous one, but with a dropdown menu open over the "Measure Detail ID" column header. The menu options are "Sort Ascending", "Sort Descending", and "Columns".

- Columns may be added or removed from the search results display by moving the mouse cursor over the Columns menu item and selecting one or more columns by clicking in the box next to the column name.



- Controls are available at the bottom of the Search Results section which allow the user to navigate between the displayed pages of Measure Detail results. Clicking the arrows will move back and forth between the pages and entering a number in the white box next to the Page label will navigate directly to that page.



- Clicking on a Measure Detail to select it and then clicking on the “View Detail” button or double clicking on a Measure Detail will navigate to the Measure Detail tab for the selected Measure Detail. See “[View Measure Detail](#)” on page 34.

- Clicking on the “CSV” button will generate a CSV file containing the current search results for view or download. See “[CSV Download](#)” on page 57.
- **Reset:**
 - The Search Criteria section will be reset to its initial state. The As Of Date field will be set to the current date and the rest of the fields will be cleared. If the Search fields are not reset, the previously entered search parameters are retained for the next Search.

Energy Efficiency Measure Database

Search Add Measure Detail Pending

Search Criteria

As Of Date: 12/11/2014	Retail Customer Name:	Program Name:	Market Month:
ISO Measure Detail ID:	Asset ID:	Reference Code:	Min Installation:
Lead Participant:	Resource ID:	City:	Max Installation:
LP Measure Detail ID:	Load Zone ID:	State:	Min Expiration:
Sector/End Use:			Max Expiration:

Search Reset

2.2.4 View Measure Detail

This section covers the process of viewing Measure Details.

- ❖ Roles that can perform this task:
 - External EEM Maintainer
 - External EEM Viewer
- 1. Launch the EEM user interface application. See the “[Accessing the Energy Efficiency Measure Database](#)” section on page 10.
- 2. The application opens to the Search page by default:

The screenshot displays the 'Energy Efficiency Measure Database' search page. At the top, there is a navigation bar with 'Search', 'Add Measure Detail', and 'Pending' options. Below this is a 'Search Criteria' section with various input fields: 'As Of Date' (12/11/2014), 'Retail Customer Name', 'Program Name', 'Market Month', 'ISO Measure Detail ID', 'Asset ID', 'Reference Code', 'Min Installation', 'Lead Participant', 'Resource ID', 'City', 'Max Installation', 'LP Measure Detail ID', 'Load Zone ID', 'State', 'Min Expiration', 'Sector/End Use', and 'Max Expiration'. There are 'Search' and 'Reset' buttons below the criteria. The 'Search Results' section features a table with columns: Lead Participant(ID), Measure Detail Name, Installation Date, First Month in Market, Life, Measure Expi Date, Summer kW, Winter kW, Load Zone(IC), Resource(ID), Asset(ID), Program Name, End Use, Retail Customer Name, and Pending Change. The table contains multiple rows of placeholder text. At the bottom of the table, it shows 'Totals: 590,238 650,084'. Below the table are 'View Detail' and 'CSV' buttons, and a pagination bar indicating 'Page 1 of 9' and 'Displaying 1 - 12 of 98'.

- Click on a Measure Detail in the Search Results section to select it and then click on the “View Detail” button OR double click on a Measure Detail. This will navigate to the Measure Detail tab for the selected Measure Detail:

- When accessing this page from the Search Results screen, the version of the Measure Detail displayed will be the version that was selected in the Search Results; i.e., if a search was done with an As Of Date in the past, the version that was effective on that date will be displayed.
- When accessing this page after adding or updating a Measure Detail, the version of the Measure Detail displayed will be the version that was just created or updated.
- The “Edit” button is only available to users with the External EEM Maintainer role.
- The “Edit” button is only available when viewing the most recent version of the Measure Detail.
- Clicking the “Edit” button will make the fields editable for update. See [“Update Measure Detail”](#) on page 40.



IMPORTANT

- ❖ External EEM users can only view data for Measure Details for which they are the Lead Participant. This means the CAMS Measure to which the Measure Detail is associated is mapped to an Asset which is mapped to a Resource for which the logged in user's company is the Lead Participant.

2.2.5 View Measure Detail History

This section covers the process of viewing the history for a Measure Detail.

- ❖ Roles that can perform this task:
 - External EEM Maintainer
 - External EEM Viewer
- 1. Launch the EEM user interface application. See the “[Accessing the Energy Efficiency Measure Database](#)” section on page 10.
- 2. The application opens to the Search page by default:

The screenshot displays the 'Energy Efficiency Measure Database' interface. At the top, there are navigation links for 'Search', 'Add Measure Detail', and 'Pending'. Below this is a 'Search Criteria' section with various input fields: 'As Of Date' (12/11/2014), 'Retail Customer Name', 'Program Name', 'Market Month', 'ISO Measure Detail ID', 'Asset ID', 'Reference Code', 'Min Installation', 'Lead Participant', 'Resource ID', 'City', 'Max Installation', 'LP Measure Detail ID', 'Load Zone ID', 'State', 'Min Expiration', and 'Sector/End Use'. There are 'Search' and 'Reset' buttons. Below the search criteria is a 'Search Results' section with a table. The table has columns: Lead Participant(ID), Measure Detail (with a dropdown arrow), Measure Detail Name, Installation Date, First Month in Market, Life, Measure Expi Date, Summer kW, Winter kW, Load Zone(ID), Resource(ID), Asset(ID), Program Name, End Use, Retail Customer Name, and Pending Change. The table contains multiple rows of data. At the bottom of the table, there is a 'Totals' row showing '590.238' and '650.084'. Below the table are 'View Detail' and 'CSV' buttons. At the very bottom, there is a pagination bar showing 'Page 1 of 9' and 'Displaying 1 - 12 of 98'.

- 3. Click on a Measure Detail in the Search Results section to select it and then click on the “View Detail” button OR double click on a Measure Detail. This will navigate to the Measure Detail tab for the selected Measure Detail. Click on the History tab:

Energy Efficiency Measure Database

Search Add Measure Detail Pending

Measure Detail Pending History

Basic

Lead Participant:

ISO Measure Detail ID:

LP Measure Detail ID:

Measure Detail Name:

Distribution Company:

Installation Date:

First Month in Market:

Measure Life (yrs):

Measure Expiration Date:

Program Name:

Sector/End Use:

Custom End Use:

Aggregation:

Number of Aggregation:

Monthly kW Summer:

Monthly kW Winter:

CAMS Fields

Measure:

Asset:

Resource:

Load Zone:

Retail Customer

Retail Customer Name:

Street:

City:

State:

Zip:

Reference Documentation

Reference Document Name:

Measure Reference Code:

Misc

Date Updated:

Updated By:

Comments:

[Edit](#)

4. This will display the history for the Measure Detail:

Energy Efficiency Measure Database

External EEM Maintainer 2, EEM (999999508)

Search Add Measure Detail Pending

Measure Detail Pending History

Measure Detail History

Measure Detail ID	Record Begin Date	Record End Date	Status	LP Measure Detail ID	Measure Detail Name	Installation Date	First Month in Market	Life	Measure Expiration Date	Summer kW	Winter kW	Measure (D)	Program Name	End Use	Retail Customer Name	Aggregation Count	Updated By	
	12/11/2014																	EEM External EEM Maintainer 2 (999999508)
	12/07/2014	12/11/2014																EEM External EEM Maintainer 2 (999999508)
	11/07/2014	12/07/2014																EEM ISO EEM Maintainer (999999501)

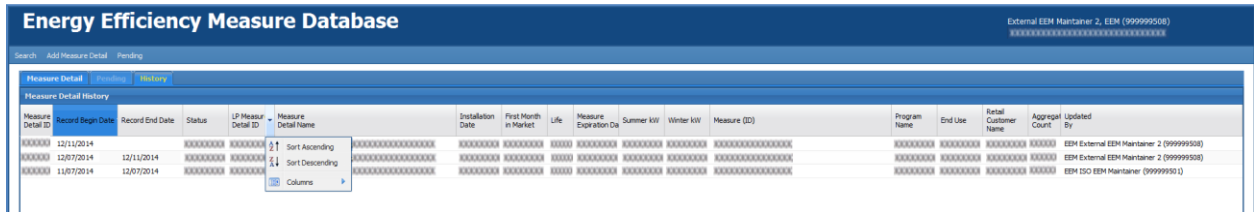
5. The Measure Detail versions are sorted by Record Begin Date in descending order (newest version first).

6. The following columns are present in the history view:

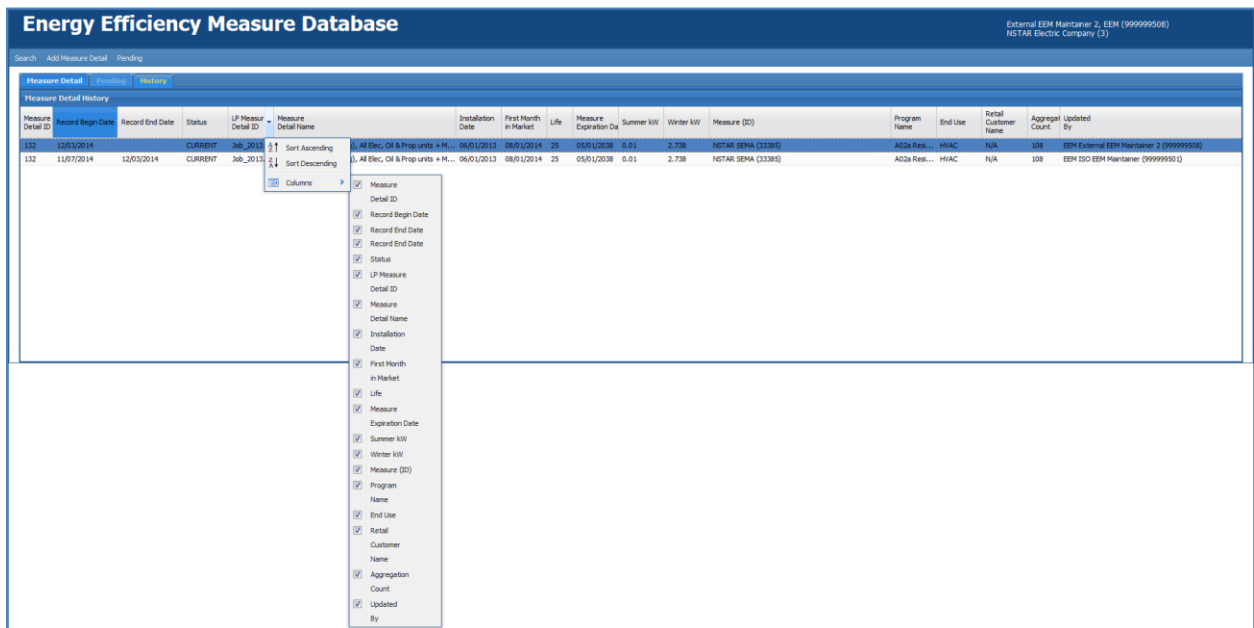
- Measure Detail ID
- Record Begin Date
- Record End Date
- Status
- LP Measure Detail ID
- Measure Detail Name
- Installation Date
- First Month in Market
- Measure Life
- Measure Expiration Date

- Summer kW
- Winter kW
- CAMS Measure Name (ID)
- Program Name
- End Use
- Retail Customer Name
- Aggregation Count
- Updated By

7. Each column of the History display may be Sorted in Ascending or Descending order by clicking on the arrow that appears in the left of the column header if the mouse cursor is moved over it:



8. Columns may be added or removed from the History display by moving the mouse cursor over the Columns menu item and selecting one or more columns by clicking in the box next to the column name:



2.2.6 Update Measure Detail

This section covers the process of updating a Measure Detail.

- ❖ Role that can perform this task:
 - External EEM Maintainer

2.2.6.1 Manual Entry

1. Launch the EEM user interface application. See the “[Accessing the Energy Efficiency Measure Database](#)” section on page 10.
2. The application opens to the Search page by default:

- Click on a Measure Detail in the Search Results section to select it and then click on the “View Detail” button OR double click on a Measure Detail. This will navigate to the Measure Detail tab for the selected Measure Detail:

Energy Efficiency Measure Database

Search Add Measure Detail Pending

Measure Detail Pending History

Basic

Lead Participant: [dropdown]
 ISO Measure Detail ID: [text]
 LP Measure Detail ID: [text]
 Measure Detail Name: [text]
 Distribution Company: [text]
 Installation Date: [calendar] [clear]
 First Month in Market: [calendar] [clear]
 Measure Life (yrs): [text]
 Measure Expiration Date: [calendar] [clear]
 Program Name: [text]
 Sector/End Use: [dropdown]
 Custom End Use: [text]
 Aggregation: [dropdown]
 Number of Aggregation: [text]
 Monthly kW Summer: [text]
 Monthly kW Winter: [text]

CAMS Fields

Measure: [dropdown]
 Asset: [text]
 Resource: [text]
 Load Zone: [text]

Retail Customer

Retail Customer Name: [text]
 Street: [text]
 City: [text]
 State: [dropdown]
 Zip: [text]

Reference Documentation

Reference Document Name: [text]
 Measure Reference Code: [text]

Misc

Date Updated: [calendar] [clear]
 Updated By: [text]
 Comments: [text area]

Edit

- Click the “Edit” button to make the fields editable for update:

Energy Efficiency Measure Database

Search Add Measure Detail Pending

Measure Detail Pending History

Basic

Lead Participant: [dropdown]
 ISO Measure Detail ID: [text]
 LP Measure Detail ID: [text]
 Measure Detail Name: [text]
 Distribution Company: [text]
 Installation Date: [calendar] [clear]
 First Month in Market: [calendar] [clear]
 Measure Life (yrs): [text]
 Measure Expiration Date: [calendar] [clear]
 Program Name: [text]
 Sector/End Use: [dropdown]
 Custom End Use: [text]
 Aggregation: [dropdown]
 Number of Aggregation: [text]
 Monthly kW Summer: [text]
 Monthly kW Winter: [text]

CAMS Fields

Measure: [dropdown]
 Asset: [text]
 Resource: [text]
 Load Zone: [text]

Retail Customer

Retail Customer Name: [text]
 Street: [text]
 City: [text]
 State: [dropdown]
 Zip: [text]

Reference Documentation

Reference Document Name: [text]
 Measure Reference Code: [text]

Misc

Date Updated: [calendar] [clear]
 Updated By: [text]
 Comments: [text area]

Submit Cancel

5. Field data is available for updates based on following rules and validations:

Basic

- **Lead Participant**: Not editable. Displays Customer Name and ID for logged in external user.
- **ISO Measure Detail ID**: Not editable. Each ISO Measure Detail ID is unique throughout the EEM database system.
- **LP Measure Detail ID**: Must be unique to the Lead Participant. Company created unique identifier for the Measure Detail. Alphanumeric values accepted. Since the search will return partial matches based on the search string, the LP database administrator must select the format for the creation of this field as well as the search string required for any Measure Detail. Limited to 100 characters.
- **Measure Detail Name**: Alphanumeric values accepted. Limited to 100 characters.
- **Distribution Company**: Required if Aggregation is 'N' and either Monthly kW Summer or Monthly kW Winter is greater than or equal to 10kW. Only numeric values accepted.
- **Installation Date**: Must be a valid date in MM/DD/YYYY format. If being modified for a Measure Detail that is "Closed" (see "[Measure Detail Modification State](#)" on page 16), a Comment is required to be entered in the "Comments" field and the Measure Detail will be moved to Pending (see "[ISO Approval Process/Pending Measure Detail Records](#)" on page 16). It will require ISO approval before the change is applied.
- **First Month in Market**: Not editable. System generated using Installation Date and system date. See "[First Month in Market/Measure Expiration Date](#)" on page 16.
- **Measure Life (yrs)**: Must be numeric, with at most one decimal place. Cannot be greater than ISO defined maximum (currently 30 years). If being modified for a Measure Detail that is "Closed" (see "[Measure Detail Modification State](#)" on page 16), a Comment is required to be entered in the "Comments" field and the Measure Detail will be moved to Pending (see "[ISO Approval Process/Pending Measure Detail Records](#)" on page 16). It will require ISO approval before the change is applied.
- **Measure Expiration Date**: Not editable. System generated using Installation Date and Measure Life (yrs). See "[First Month in Market/Measure Expiration Date](#)" on page 16.
- **Program Name**: Alphanumeric values accepted. Limited to 100 characters.
- **Sector/End Use**: Value chosen from drop-down list. See Table 3: [Sectors/End Uses](#) on page 69 for a list of Sectors and End Uses.
- **Custom End Use**: Required if a "Custom Measures" option is chosen for Sector/End Use. Limited to 100 characters.
- **Aggregation**: Limited to 'Y' and 'N'. Defaults to 'N'.
- **Number of Aggregation**: Only editable if Aggregation value is 'Y'. Must be greater than zero. Defaults to 1 if Aggregation = N. Rounds to the nearest whole number using standard rounding rules. Limited to seven digits.
- **Monthly kW Summer**: Only numeric values accepted. If Aggregation value is 'Y', the kW value divided by Number of Aggregation must be less than 10kW. Entered value is rounded to three decimal places using standard rounding rules. If being modified for a Measure Detail that is "Closed" (see "[Measure Detail Modification State](#)" on page 16), a Comment is required to be entered in the "Comments" field and the Measure Detail will be moved to Pending (see "[ISO Approval Process/Pending](#)

[Measure Detail Records](#)” on page 16). It will require ISO approval before the change is applied.

- **Monthly kW Winter:** Only numeric values accepted. If Aggregation value is ‘Y’, the kW value divided by Number of Aggregation must be less than 10kW. Entered value is rounded to three decimal places using standard rounding rules. If being modified for a Measure Detail that is “Closed” (see “[Measure Detail Modification State](#)” on page 16), a Comment is required to be entered in the “Comments” field and the Measure Detail will be moved to Pending (see “[ISO Approval Process/Pending Measure Detail Records](#)” on page 16). It will require ISO Approval before the change is applied.

CAMS Fields

- **Measure:** Required. Value chosen from a drop-down list. If being modified for a Measure Detail that is “Closed” (see “[Measure Detail Modification State](#)” on page 16), a Comment is required to be entered in the “Comments” field and the Measure Detail will be moved to Pending (see “[ISO Approval Process/Pending Measure Detail Records](#)” on page 16). It will require ISO approval before the change is applied.
- **Asset:** Not editable. System generated based on value chosen in Measure drop-down list.
- **Resource:** Not editable. System generated based on value chosen in Measure drop-down list.
- **Load Zone:** Not editable. System generated based on value chosen in Measure drop-down list.

Retail Customer

- **Retail Customer Name:** Required if Aggregation is ‘N’ and either Monthly kW Summer or Monthly kW Winter is greater than or equal to 10kW. Alphanumeric values accepted. Limited to 100 characters.
- **Street:** Required if Aggregation is ‘N’ and either Monthly kW Summer or Monthly kW Winter is greater than or equal to 10kW. Alphanumeric values accepted. Limited to 50 characters.
- **City:** Required if Aggregation is ‘N’ and either Monthly kW Summer or Monthly kW Winter is greater than or equal to 10kW. Alphanumeric values accepted. Limited to 50 characters.
- **State:** Required if Aggregation is ‘N’ and either Monthly kW Summer or Monthly kW Winter is greater than or equal to 10kW. Limited to the six New England states. Value must be chosen from a drop-down list.
- **Zip:** Required if Aggregation is ‘N’ and either Monthly kW Summer or Monthly kW Winter is greater than or equal to 10kW. Must contain exactly five digits.

Reference Documentation

- **Reference Document Name:** Alphanumeric values accepted. Limited to 100 characters.
- **Measure Reference Code:** Alphanumeric values accepted. Limited to 100 characters.

Misc

- **Date Updated:** Not Editable. Generated by EEM using the system date and time of the Measure Detail update. See “[Versioning](#)” on page 15.

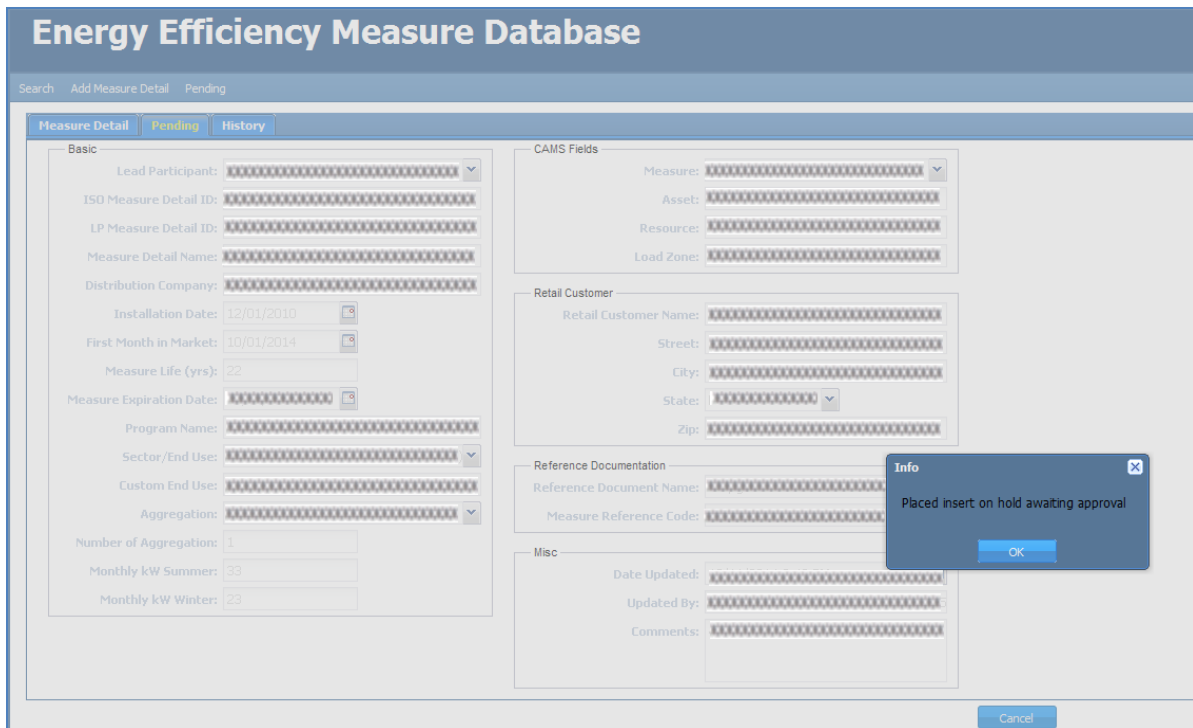
- **Updated By:** Not editable. Generated by EEM using the user name associated with the certificate of the logged in user.
- **Comments:** Required if the Measure Detail is “Closed” (see “[Measure Detail Modification State](#)” on page 16) and a change was made to Installation Date, Measure Life (yrs), Monthly kW Summer, Monthly kW Winter, or Measure. Limited to 4,000 characters.

6. Click the “Submit” or “Cancel” button.

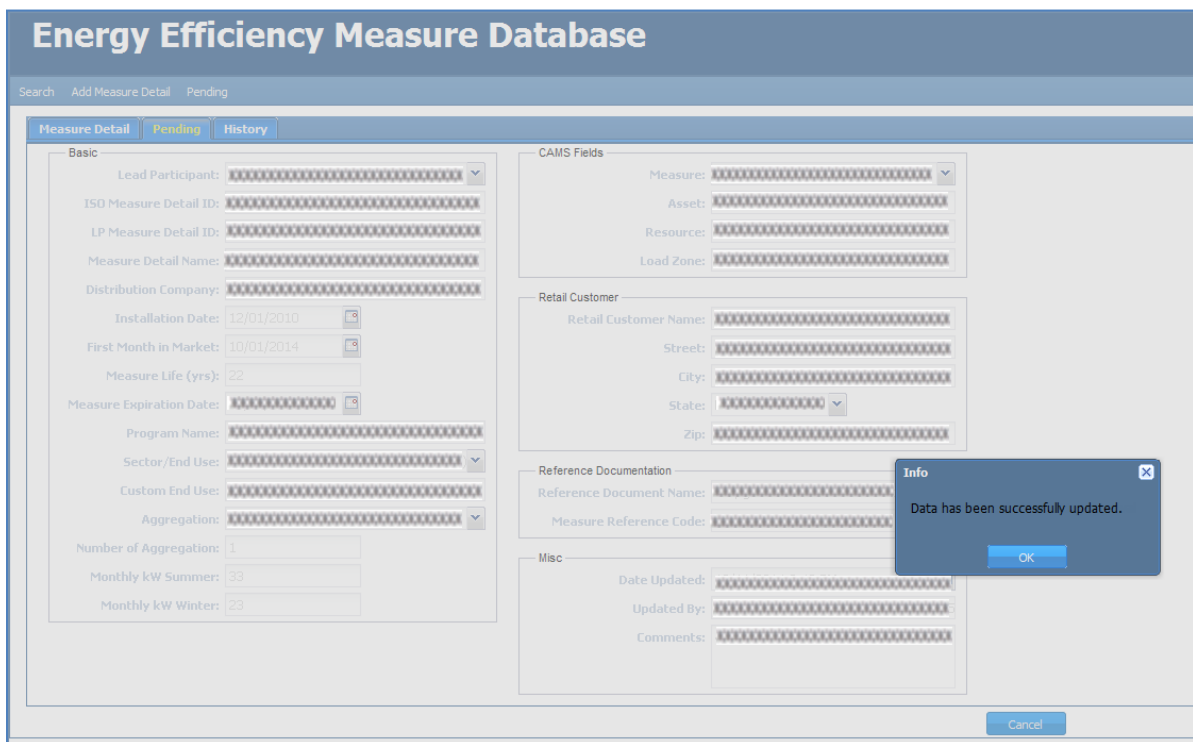
- **Submit:**
 - If there are validation errors, a message will be displayed asking the user to correct the indicated validation errors and try again:

The screenshot displays the 'Energy Efficiency Measure Database' interface. The main form is titled 'Measure Detail' and is divided into several sections: 'Basic', 'CAMS Fields', 'Retail Customer', 'Reference Documentation', and 'Misc'. The 'Basic' section contains fields for Lead Participant, ISO Measure Detail ID, LP Measure Detail ID, Measure Detail Name, Distribution Company, Installation Date (12/01/2014), First Month in Market, Measure Life (yrs) (22), Measure Expiration Dates, Program Name (highlighted in red), Sector/End Use (COMMERCIAL - Custom Measures (Large)), Custom End Use, Aggregation (N), Number of Aggregation (1), Monthly kW Summer (33), and Monthly kW Winter (23). The 'CAMS Fields' section includes Measure, Asset, Resource, and Load Zone. The 'Retail Customer' section includes Retail Customer Name, Street, City, State, and Zip. The 'Reference Documentation' section includes Reference Document Name and Measure Reference Code. The 'Misc' section includes Date Updated, Updated By (EEM External EEM Maintainer 2 (9999999)), and Comments. A 'Validation' dialog box is overlaid on the form, displaying the message: 'Please correct the indicated validation errors and try again'. At the bottom of the form, there are 'Submit' and 'Cancel' buttons.

- If a change was made to Installation Date, Measure Life (yrs), Monthly kW Summer, Monthly kW Winter, or Measure, Measure Detail is be set to Pending and will require ISO approval before changes are applied:



- Otherwise, if there are no validation errors, a message will be displayed informing the user that the data was successfully updated and the user will be brought to the Measure Detail tab for the just updated Measure Detail:



- **Cancel:**
 - Update of Measure Detail is abandoned, the Measure Detail fields are made unavailable for update and the Measure Detail reverts back with no changes.

2.2.6.2 CSV Update

Multiple Measure Details can be updated simultaneously using the CSV Upload function. Up to 50 record revisions may be uploaded at a time.

1. Prepare a file in CSV format for upload. Specify values for fields in the following order using the new data to be added to EEM.
 - **CAMS Measure ID**: Required. This must be for an On-Peak or Seasonal Peak Measure belonging to the Lead Participant of the logged in user.
 - **Measure Detail ID**: Required. Failure to complete this field will result in a new record being created.
 - **Lead Participant ID**: Required. Numeric values accepted.
 - **LP Measure Detail ID**: Required. This must match the original ID uploaded to EEM exactly.
 - **Measure Detail Name**: Required. Alphanumeric values accepted. Limited to 100 characters.
 - **Distribution Company ID**: Required if Aggregation is 'N' and either Monthly kW Summer or Monthly kW Winter is greater than or equal to 10kW. Only numeric values accepted. Request the numeric code for a specific distribution company through an Ask ISO Issue.

- **Measure Life (yrs)**: Required. Must be numeric, with at most one decimal place. Cannot be greater than ISO defined maximum (currently 30 years).
- **Program Name**: Required. Alphanumeric values accepted. Limited to 100 characters.
- **Sector Type**: Required. See Table 3: [Sectors/End Uses](#) on page 69 for the full list of eligible options.
- **End Use Type**: Required. See Table 3: [Sectors/End Uses](#) on page 69 for the full list of eligible options.
- **Custom End Use**: Required if a “Custom Measures” option is chosen for End Use. Limited to 100 characters.
- **Aggregation Flag**: Required. Limited to ‘Y’ and ‘N’. Yes is used when multiple end uses are aggregated into a single Measure Detail.
- **Summer kW**: Required. Only numeric values accepted. If Aggregation value is ‘Y’, the kW value divided by Number of Aggregation must be less than 10kW. Entered value is rounded to three decimal places using standard rounding rules.
- **Winter kW**: Required. Only numeric values accepted. If Aggregation value is ‘Y’, the kW value divided by Number of Aggregation must be less than 10kW. Entered value is rounded to three decimal places using standard rounding rules.
- **Retail Customer Name**: Required if Aggregation is ‘N’ and either Monthly kW Summer or Monthly kW Winter is greater than or equal to 10kW. Alphanumeric values accepted. Limited to 100 characters.
- **Street**: Required if Aggregation is ‘N’ and either Monthly kW Summer or Monthly kW Winter is greater than or equal to 10kW. Alphanumeric values accepted. Limited to 50 characters.
- **City**: Required if Aggregation is ‘N’ and either Monthly kW Summer or Monthly kW Winter is greater than or equal to 10kW. Alphanumeric values accepted. Limited to 50 characters.
- **State**: Required if Aggregation is ‘N’ and either Monthly kW Summer or Monthly kW Winter is greater than or equal to 10kW. Limited to the six New England states. Must contain exactly two letters.
- **Postal Code**: Required if Aggregation is ‘N’ and either Monthly kW Summer or Monthly kW Winter is greater than or equal to 10kW. Must contain exactly five digits.
- **Reference Doc Name**: Required. Alphanumeric values accepted. Limited to 100 characters.
- **Reference Code**: Required. Alphanumeric values accepted. Limited to 100 characters.
- **Comments**: Optional for initial entry but required for data updates. Alphanumeric values accepted. Limited to 4,000 characters.
- **Installation Date**: Required. Must be a valid date in MM/DD/YYYY format, after June 16, 2006 – the initial qualification date for the Forward Capacity Market – and prior to the current system date. If more than three years prior to the current system date, the new Measure Detail will be put into Pending and will require ISO approval before being applied (see “[ISO Approval Process/Pending Measure Detail Records](#)” on page 16).
- **Aggregation Count**: Required. Must be ‘1’ if Aggregation value is ‘N’. Must be greater than zero. Rounds to the nearest whole number using standard rounding rules. Limited to seven digits.



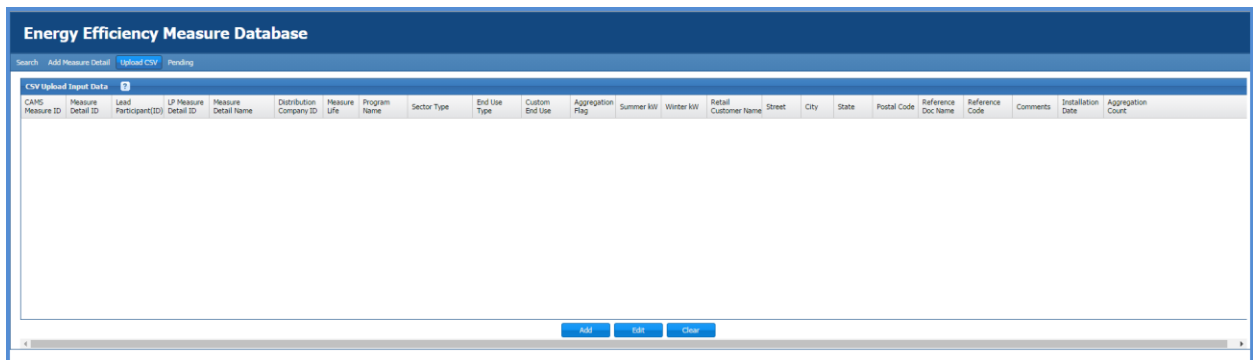
IMPORTANT

- ❖ Do not include column headings in the CSV file that will be uploaded. Doing so will prevent the upload of data.
- ❖ When downloading a CSV of existing Measure Details from the EEM database in order to prepare an update file, be sure to adjust the column order and values to reflect the instructions outlined above.

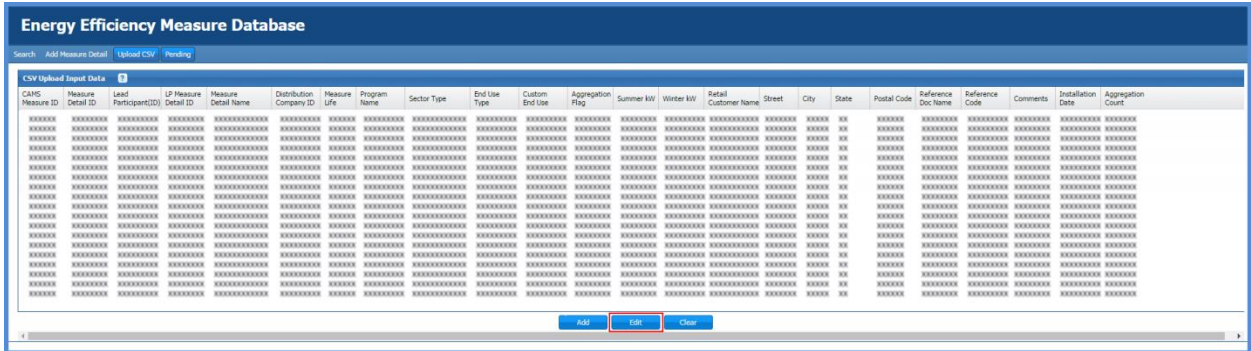
2. Launch the EEM user interface application. See the “[Accessing the Energy Efficiency Measure Database](#)” section on page 10.
3. Click on “Upload CSV” in the menu bar:



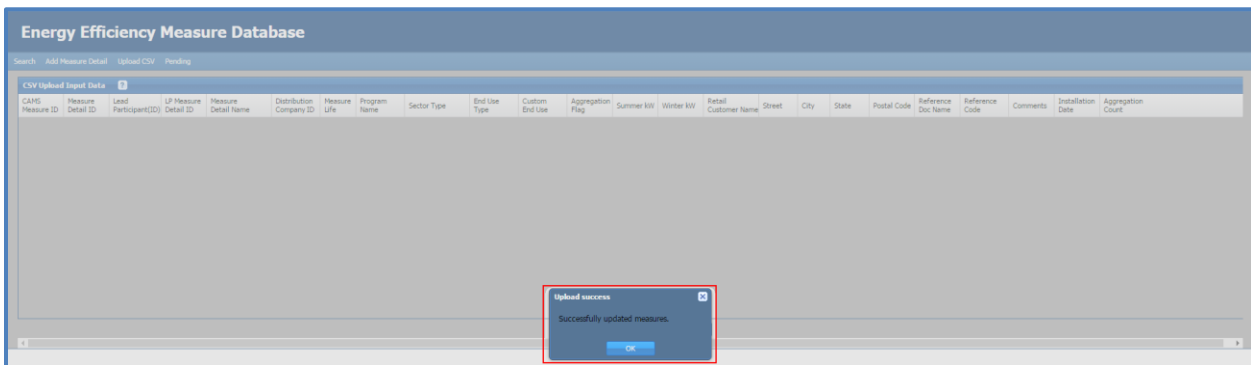
4. A blank CSV Upload Input Data screen is displayed with the column headings outlined in step 1 above.



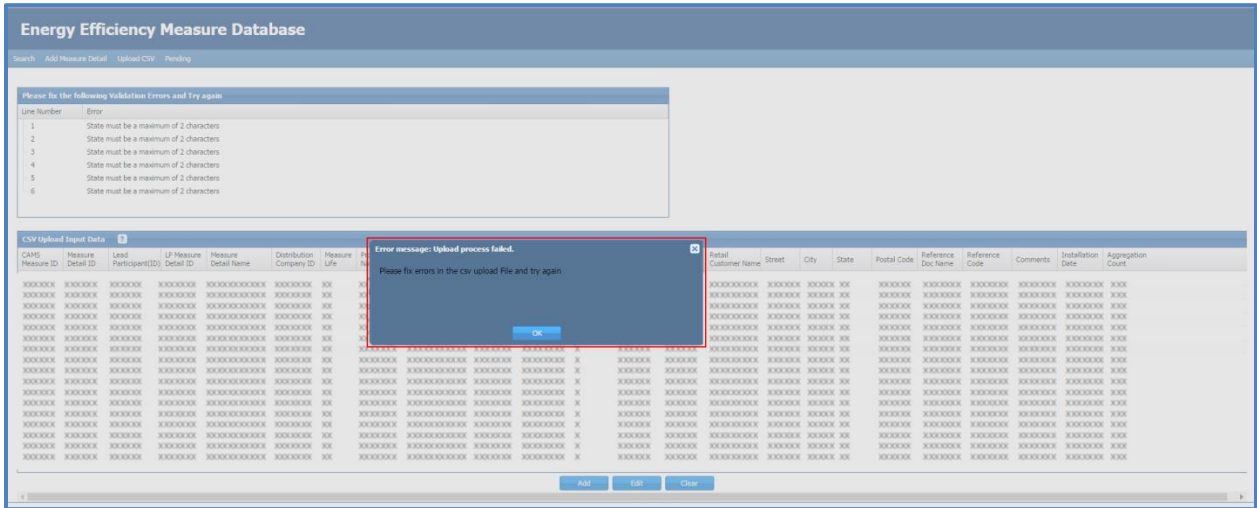
5. Drag and drop the file intended for upload directly into the blank table body on the CSV Upload Input Data screen. The file data will populate on this screen momentarily. Once this has occurred, click the “Edit” button.
 - If the “Add” button is selected, the user will receive an error message. If this occurs, simply close the error message and select “Edit” instead.
 - The “Clear” button may be used at any time to remove uploaded data before it is added to the database.



6. If there are no validation errors, all data that was previously in the data upload grid will disappear and a success message will be shown indicating that these Measure Detail updates have been accepted.



- If there are problems with the file, the user may receive an error message similar to this after clicking “Edit”:



- The box that appears at the top of the screen will list all existing validation errors. Click “OK” on the error message box to review this list.

- Data cannot be edited directly on the CSV Upload Input Data screen. When review of the list of errors is completed and the CSV file is corrected, click the “Clear” button to remove all data from the upload grid. Re-upload the file by dragging and dropping the corrected file, then selecting the “Edit” button.



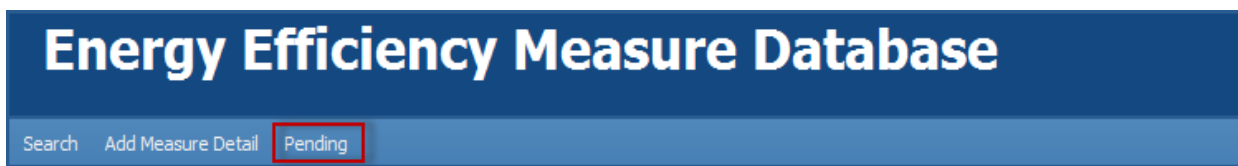
IMPORTANT

- ❖ New Measure Detail Data and updates to existing Measure Detail Data must be uploaded in separate files.
- ❖ It is not possible to upload two separate CSV files at the same time. Attempting to drag a second file into the upload window will overwrite the original data.

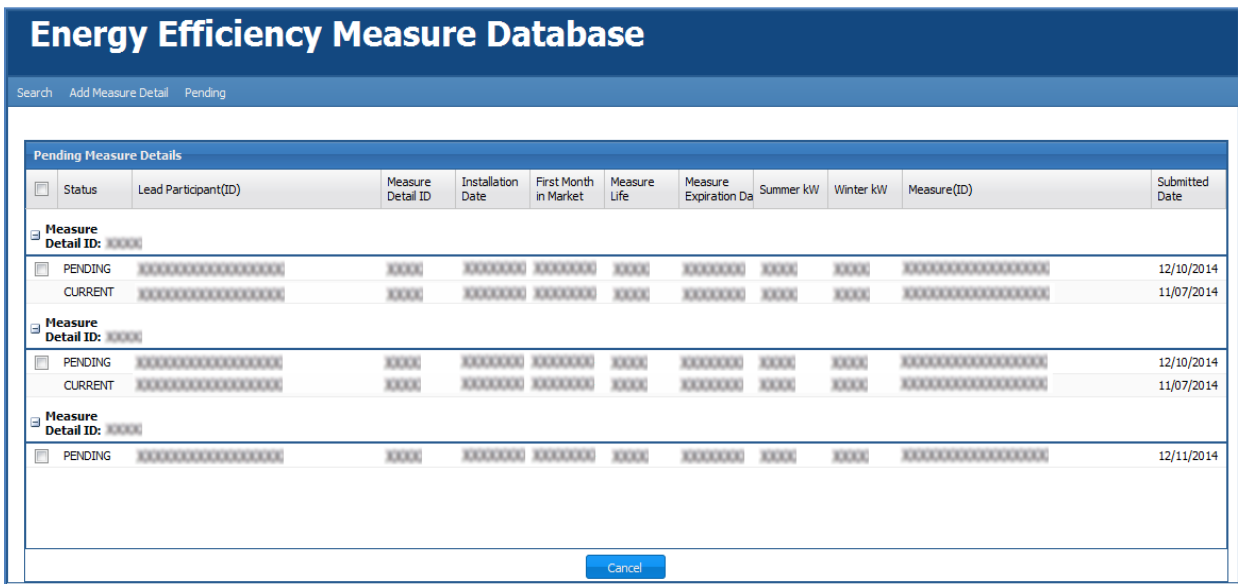
2.2.7 View Pending Changes

This section covers the process of adding, viewing and acting upon Pending changes to Measure Details.

- ❖ Roles that can perform this task:
 - External EEM Maintainer
 - External EEM Viewer (view steps only)
- 1. Launch the EEM user interface application. See the “[Accessing the Energy Efficiency Measure Database](#)” section on page 10.
- 2. Click on “Pending” in the menu bar:



- 3. The Pending Measure Details screen is displayed:



The screenshot displays the 'Pending Measure Details' screen. It features a table with columns for Status, Lead Participant(ID), Measure Detail ID, Installation Date, First Month in Market, Measure Life, Measure Expiration Date, Summer kW, Winter kW, Measure(ID), and Submitted Date. The table is organized into three sections, each starting with a 'Measure Detail ID' header. Each section contains two rows: one for 'PENDING' status and one for 'CURRENT' status. A 'Cancel' button is located at the bottom of the screen.

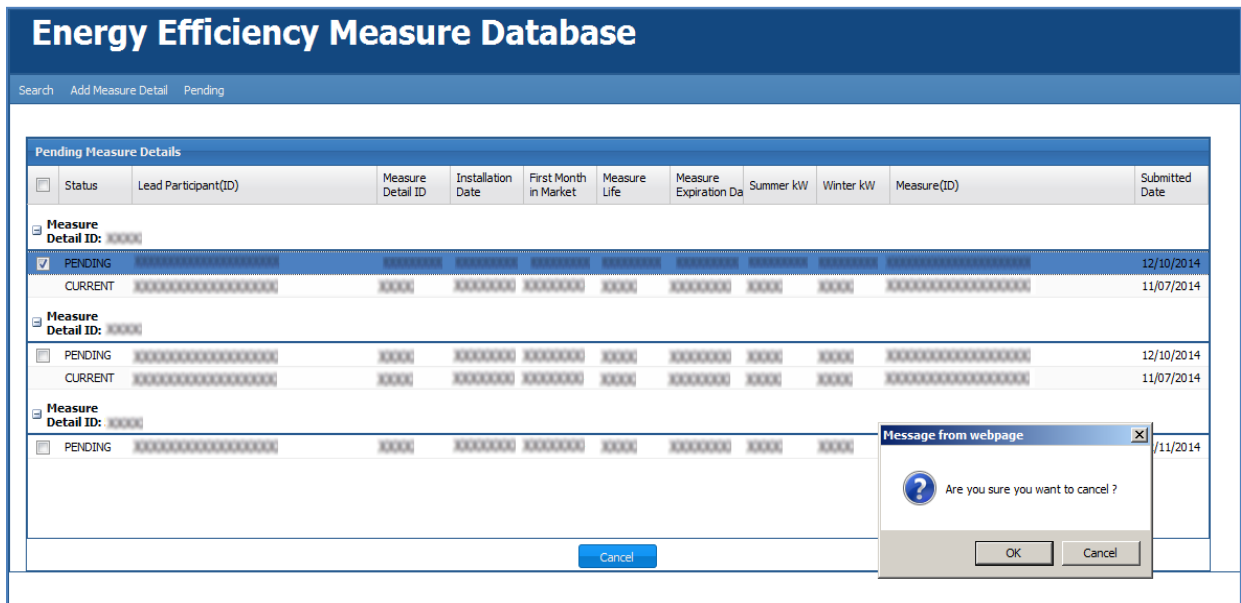
Status	Lead Participant(ID)	Measure Detail ID	Installation Date	First Month in Market	Measure Life	Measure Expiration Date	Summer kW	Winter kW	Measure(ID)	Submitted Date	
Measure Detail ID: XXXX											
<input type="checkbox"/>	PENDING	XXXXXXXXXXXXXXXXXXXX	XXXX	XXXXXXXX	XXXXXXXX	XXXX	XXXXXXXX	XXXX	XXXX	XXXXXXXXXXXXXXXXXXXX	12/10/2014
<input type="checkbox"/>	CURRENT	XXXXXXXXXXXXXXXXXXXX	XXXX	XXXXXXXX	XXXXXXXX	XXXX	XXXXXXXX	XXXX	XXXX	XXXXXXXXXXXXXXXXXXXX	11/07/2014
Measure Detail ID: XXXX											
<input type="checkbox"/>	PENDING	XXXXXXXXXXXXXXXXXXXX	XXXX	XXXXXXXX	XXXXXXXX	XXXX	XXXXXXXX	XXXX	XXXX	XXXXXXXXXXXXXXXXXXXX	12/10/2014
<input type="checkbox"/>	CURRENT	XXXXXXXXXXXXXXXXXXXX	XXXX	XXXXXXXX	XXXXXXXX	XXXX	XXXXXXXX	XXXX	XXXX	XXXXXXXXXXXXXXXXXXXX	11/07/2014
Measure Detail ID: XXXX											
<input type="checkbox"/>	PENDING	XXXXXXXXXXXXXXXXXXXX	XXXX	XXXXXXXX	XXXXXXXX	XXXX	XXXXXXXX	XXXX	XXXX	XXXXXXXXXXXXXXXXXXXX	12/11/2014

- 4. Each row in the display is organized by the Measure Detail ID and contains two sub-rows. The first row is the pending values, and the second row is the current values. The exception to this is if a Measure Detail was placed into pending upon creation. In this case there will be only one sub-row.
- 5. Double clicking on a Measure Detail with a status of “PENDING” will navigate to the Pending tab for the selected Measure Detail (see “[View Pending Measure Detail](#)” on page 54). Double

clicking on a Measure Detail with a status of “CURRENT” will navigate to the Measure Detail tab for the selected Measure Detail (see “[View Measure Detail](#)” on page 34).

NOTE: The following steps only apply to an External EEM Maintainer.

6. Each row has a checkbox in the first column. Clicking on the checkbox selects the Measure Detail for action.
7. The header row contains a checkbox that serves as a “Select All” and “Select None” option.
8. The display contains the following columns:
 - Status
 - Lead Participant Name (ID)
 - Measure Detail ID
 - Installation Date
 - First Month in Market
 - Measure Life
 - Measure Expiration Date
 - Summer kW
 - Winter kW
 - Measure (ID)
 - Submitted Date – The system time at which the change that caused this pending record was made.
9. Clicking the “Cancel” button (External EEM Maintainer only) will display a confirmation dialog:



10. Upon confirmation that the user wants to continue with the Cancel operation, the Measure Detail associated with each checked row is left intact and the Pending version of the Measure Detail is discarded.

11. After Cancelling a set of changes, a Success or Failure message appears and the display is refreshed with any remaining Pending changes:

Energy Efficiency Measure Database

Search Add Measure Detail Pending

Pending Measure Details

<input type="checkbox"/>	Status	Lead Participant(ID)	Measure Detail ID	Installation Date	First Month in Market	Measure Life	Measure Expiration Date	Summer kW	Winter kW	Measure(ID)	Submitted Date
Measure Detail ID: XXXX											
<input type="checkbox"/>	PENDING	XXXXXXXXXXXXXXXXXXXX	XXXX	XXXXXXXXXX	XXXXXXXXXX	XXXX	XXXXXXXXXX	XXXX	XXXX	XXXXXXXXXXXXXXXXXXXX	12/10/2014
<input type="checkbox"/>	CURRENT	XXXXXXXXXXXXXXXXXXXX	XXXX	XXXXXXXXXX	XXXXXXXXXX	XXXX	XXXXXXXXXX	XXXX	XXXX	XXXXXXXXXXXXXXXXXXXX	11/07/2014
Measure Detail ID: XXXX											
<input type="checkbox"/>	PENDING	XXXXXXXXXXXXXXXXXXXX	XXXX	XXXXXXXXXX	XXXXXXXXXX	XXXX	XXXXXXXXXX	XXXX	XXXX	XXXXXXXXXXXXXXXXXXXX	12/11/2014

Cancel

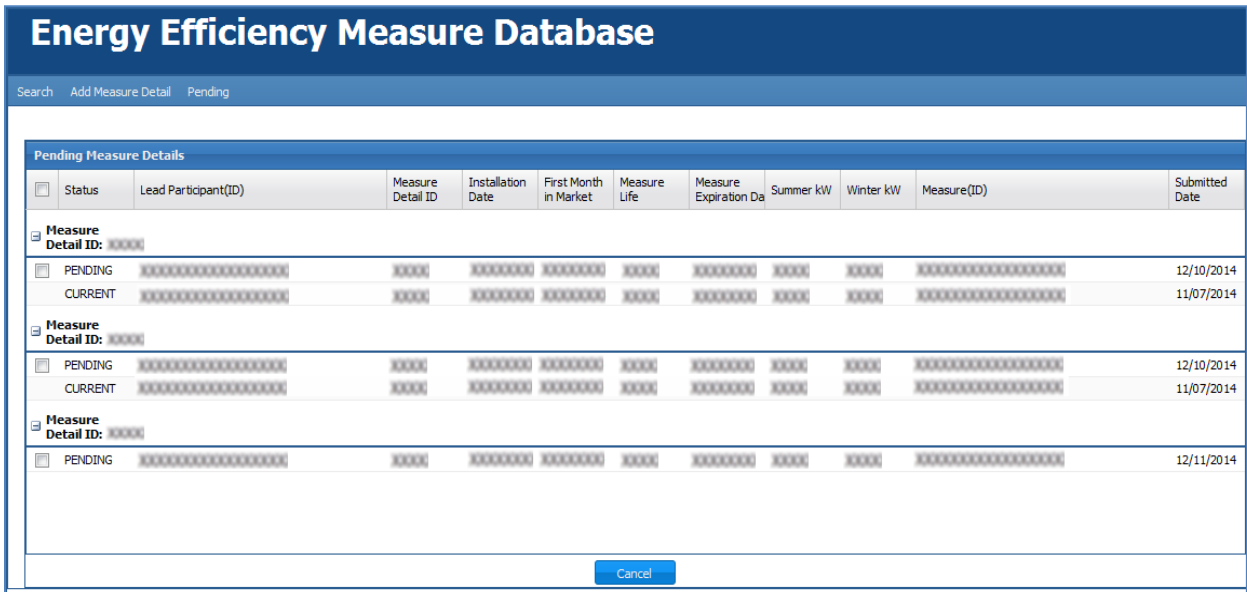
2.2.8 View Pending Measure Detail

This section covers the process of viewing the pending version of a Measure Detail.

- ❖ Roles that can perform this task:
 - External EEM Maintainer
 - External EEM Viewer (view steps only)
- 1. Launch the EEM user interface application. See the “[Accessing the Energy Efficiency Measure Database](#)” section on page 10.
- 2. Click on “Pending” in the menu bar:



- 3. The Pending Measure Details screen is displayed:



4. Double click on a Measure Detail with a status of “PENDING” to navigate to the Pending tab for the selected Measure Detail:

The screenshot displays the 'Energy Efficiency Measure Database' interface. At the top, there is a navigation bar with 'Search', 'Add Measure Detail', and 'Pending' buttons. Below this, a tabbed interface shows 'Measure Detail', 'Pending', and 'History' tabs, with 'Pending' currently selected. The main content area is divided into several sections:

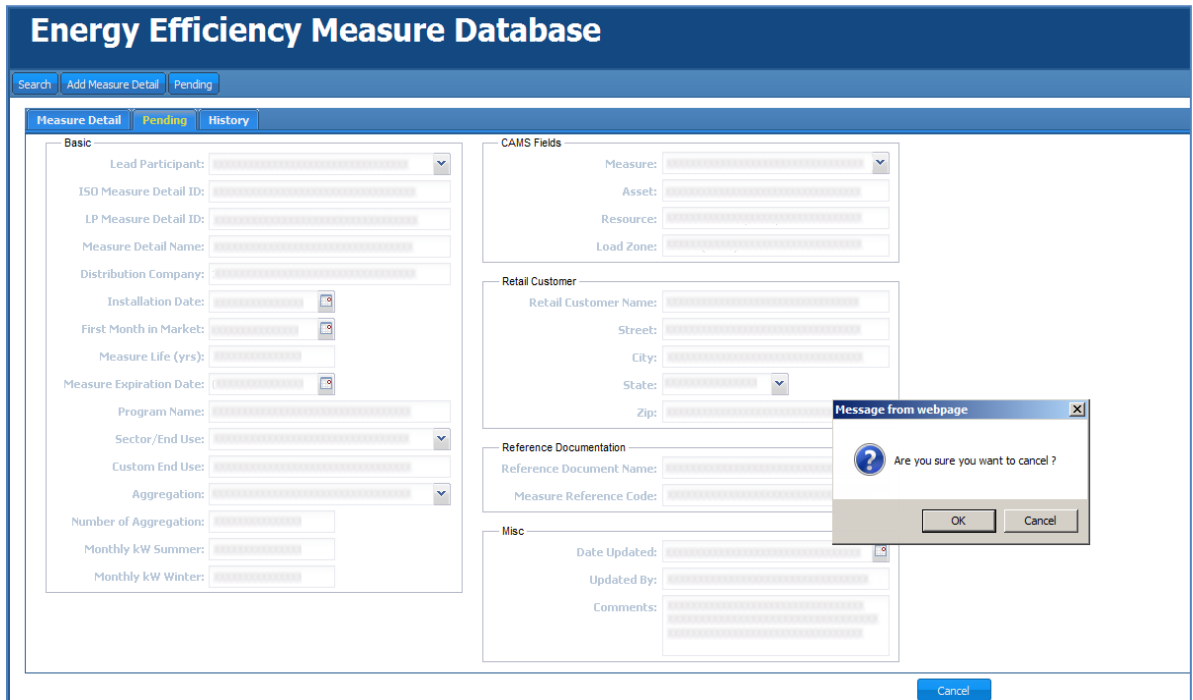
- Basic:** Includes fields for Lead Participant (dropdown), ISO Measure Detail ID, LP Measure Detail ID, Measure Detail Name, Distribution Company, Installation Date, First Month in Market, Measure Life (yrs), Measure Expiration Date, Program Name, Sector/End Use (dropdown), Custom End Use, Aggregation (dropdown), Number of Aggregation, Monthly kW Summer, and Monthly kW Winter.
- CAMS Fields:** Includes fields for Measure (dropdown), Asset, Resource, and Load Zone.
- Retail Customer:** Includes fields for Retail Customer Name, Street, City, State (dropdown), and Zip.
- Reference Documentation:** Includes fields for Reference Document Name and Measure Reference Code.
- Misc:** Includes fields for Date Updated, Updated By, and a multi-line Comments field.

A 'Cancel' button is located at the bottom right of the form area.

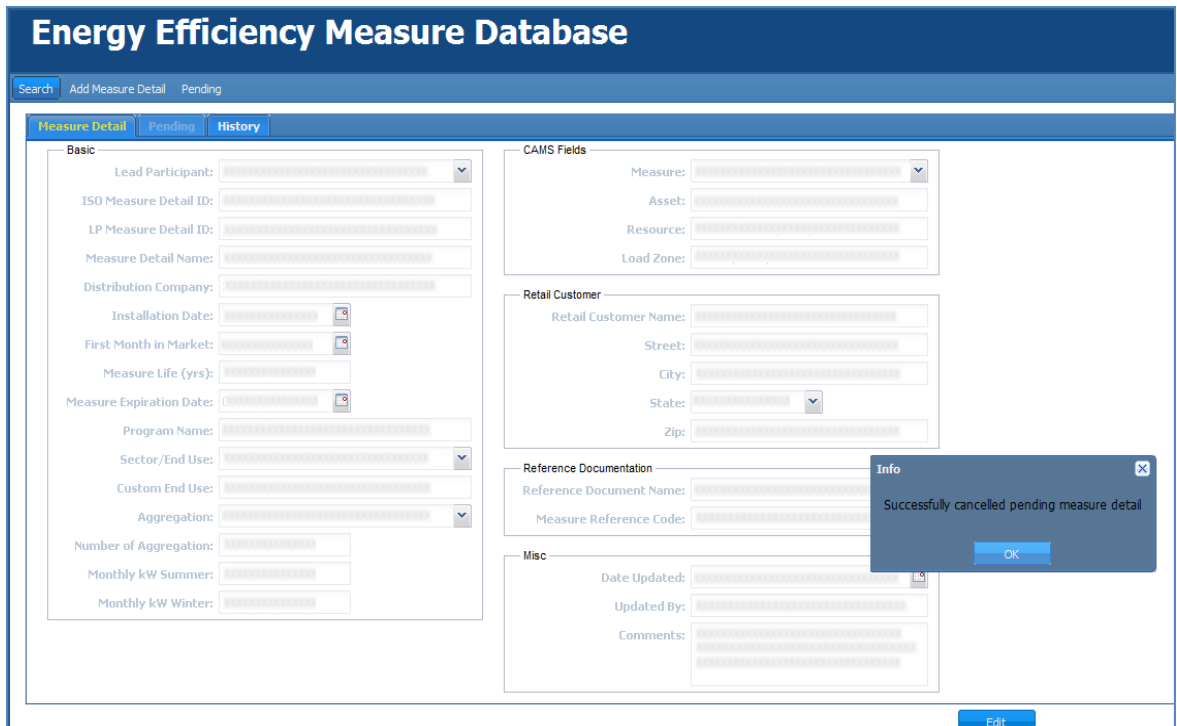
NOTE: The following steps only apply to an External EEM Maintainer.

5. The “Cancel” button is used to cancel an update request prior to ISO review.

6. Clicking the “Cancel” button displays a confirmation dialog:



7. Upon confirmation of the cancel, the Pending record is discarded, leaving the current version of the Measure Detail record intact. The “Measure Detail” tab is displayed with the current Measure Detail data (the current record is unaffected – see “[View Measure Detail](#)” on page 34):



2.2.9 CSV Download

This section covers the process of generating a CSV file containing search results for view or download.

- ❖ Roles that can perform this task:
 - External EEM Maintainer
 - External EEM Viewer

1. Launch the EEM user interface application. See the “[Accessing the Energy Efficiency Measure Database](#)” section on page 10.
2. The application opens to the Search page by default:

3. Select the Search criteria desired. (See “[Measure Detail Search](#)” on page 29.) If no limiting Search criteria are selected, the CSV file will include all Measure Details currently in the database matching the Lead Participant certificate used.
4. Clicking on the “CSV” button opens a dialog box giving the user the option to Open or Save a CSV file:

The screenshot displays the 'Energy Efficiency Measure Database' web application. At the top, there are navigation links for 'Search', 'Add Measure Detail', and 'Pending'. Below this is a 'Search Criteria' form with various input fields: 'As Of Date' (12/11/2014), 'Retail Customer Name', 'Program Name', 'Market Month', 'ISO Measure Detail ID', 'Asset ID', 'Reference Code', 'Min Installation', 'Lead Participant', 'Resource ID', 'City', 'Max Installation', 'LP Measure Detail ID', 'Load Zone ID', 'State', 'Min Expiration', and 'Sector/End Use'. There are 'Search' and 'Reset' buttons below the form.

The 'Search Results' section shows a table with columns: Lead Participant(ID), Measure Detail, Measure Detail Name, Installation Date, First Month in Market, Life, Measure Expi Date, Summer kW, Winter kW, Load Zone(ID), and Res. The table contains several rows of placeholder text. Below the table, there are 'Totals:' and 'View Detail' and 'CSV' buttons.

A 'File Download' dialog box is open, asking 'Do you want to open or save this file?'. The file name is 'measuredetails.csv', the type is 'Microsoft Office Excel Comma Separated Values File', and it is from 'iso-ne.com'. There are 'Open', 'Save', and 'Cancel' buttons. A warning message at the bottom of the dialog states: 'While files from the Internet can be useful, some files can potentially harm your computer. If you do not trust the source, do not open or save this file. [What's the risk?](#)'

5. The CSV downloaded contains all records matched by the search criteria, regardless of pagination. The following fields are included in the CSV download:

- Lead Participant ID
- Measure Detail ID
- Record Begin Date
- Record Date
- Lead Participant Measure Detail ID
- Measure Detail Name
- Measure ID
- Distribution Company ID
- Aggregation Flag
- Number of Aggregation
- Installation Date
- First Month in Market
- Measure Life
- Measure Expiration Date
- Program Name
- Sector

- End Use
- Custom End Use
- Asset ID
- Resource ID
- Load Zone ID
- Retail Customer Name
- Street
- City
- State
- Zip
- Reference Document Name
- Measure Reference Code
- Monthly kW Summer
- Monthly kW Winter
- Updated By
- Updated Date



IMPORTANT

- ❖ If Measure Detail Data is downloaded from EEM in order to make edits and then re-upload with changes, make sure that the columns are re-ordered to match the format outlined in [“CSV Upload”](#) on page 24.

2.3 Demand Reduction Reporting

On June 1, 2017, EEM became the primary source of energy efficiency On-Peak and Seasonal Peak asset demand reduction values as reported in CAMS.

2.3.1 Demand Reduction Reporting Requirement

Participants must report demand reduction values for all months for each energy efficiency On-Peak and Seasonal Peak asset through CAMS as outlined in *ISO New England Manual for Market Rule 1 Accounting, M-28*.

Demand reduction values must be submitted for both initial and final settlement for each month, and a supporting document is required with each submission outlining the calculation used to arrive at the entered value. Data submissions for initial settlement are due by 13:00 on the third business day after the last operating day of the settlement month; the data reconciliation submittal deadline is at 17:00 on the 70th calendar day after day 1 of the month following the settlement month.

Prior to June 1, 2017, a variety of supporting documents were acceptable to confirm the submitted value. Beginning June 1, 2017, the kW totals for each asset contained in the EEM became the only acceptable source for data submissions. Supporting documents are still required, but the only acceptable submissions are screenshots from the EEM reflecting the entered values.



IMPORTANT

- ❖ Starting on June 1, 2017, the demand reduction kW value entered in CAMS for each asset must match the appropriate seasonal kW value for the asset in EEM.

2.3.2 Demand Reduction Supporting Document

Beginning June 1, 2017, the only acceptable supporting documents that may be submitted with demand reduction values in CAMS are screenshots from EEM. The following steps should be taken to capture the correct values in a screenshot.

3 Customer Support

3.1 By Internet



<https://www.iso-ne.com/participate/support>

3.2 By Telephone



Days of Operation

During Regular Business Hours, Monday through Friday: 8:00 A.M. to 5:00 P.M. ET:
(413) 540-4220

The Customer Support Hotline is **NOT** staffed on the following days:

- New Year's Day
- Martin Luther King Day
- Presidents' Day
- Good Friday
- Memorial Day
- Independence Day
- Labor Day
- Columbus Day
- Veterans Day
- Thanksgiving Day
- Day after Thanksgiving
- Christmas Day

For after-hours business emergencies, contact Customer Support at **(877) 226-4814** (pager).

3.3 By Email



custserv@iso-ne.com

3.4 Ask ISO



Ask ISO is available to market participants who have a valid digital certificate and who have been assigned the role of “Ask ISO / External User” by their Security Administrator.

Ask ISO is located at: <https://www.iso-ne.com/about/contact/customer-support>.

4 Links

4.1 ISO New England Home Page

<https://www.iso-ne.com>

4.2 ISO New England Training Page

<https://www.iso-ne.com/participate/training>

4.3 ISO New England FAQ Page

<https://www.iso-ne.com/participate/support/faq>

4.4 SMD Site for ISO Applications

<https://smd.iso-ne.com/>

4.5 SMD Site for ISO Sandbox Applications

<https://sandboxsmd.iso-ne.com/>

4.6 ISO New England Glossary and Acronyms

<https://www.iso-ne.com/participate/support/glossary-acronyms>

5 Reference Tables

5.1 Table 1: EEM Security Roles

CAMS Role	Activities Allowed	Pertinent Sections in User Guide
External EEM Viewer	<ul style="list-style-type: none"> • Search for data for any Measure Detail that the Lead Participant owns • View data for any Measure Detail that the Lead Participant owns 	<ul style="list-style-type: none"> • “Get Started” (page 8) • “Manage Energy Efficiency Measures” (page 14) • “Measure Detail Search” (page 29) • “View Measure Detail” (page 34) • “View Measure Detail History” (page 37) • “View Pending Changes” (page 51) • “View Pending Measure Detail” (page 54) • “CSV Download” (page 57)
External EEM Maintainer	<ul style="list-style-type: none"> • Upload/update data for any Measure Detail that the Lead Participant owns • Search for data for any Measure Detail that the Lead Participant owns • View data for any Measure Detail that the Lead Participant owns 	<ul style="list-style-type: none"> • “Get Started” (page 8) • “Manage Energy Efficiency Measures” (page 14) • “Add Measure Detail” (page 18) • “Measure Detail Search” (page 29) • “View Measure Detail” (page 34) • “View Measure Detail History” (page 37) • “Update Measure Detail” (page 40) • “View Pending Changes” (page 51) • “View Pending Measure Detail” (page 54) • “CSV Download” (page 57)

5.2 Table 2: EEM Fields, Definitions and Validation Rules

Field	Definition	Rules
Lead Participant ID	Customer Name and ID for user	Not Editable. System generated.
ISO Measure Detail ID	Each ISO Measure Detail ID is unique throughout the EEM	Not Editable. System generated after successful creation of Measure Detail.
LP Measure Detail ID	Provides participant with key field to match with their database	Required. Alphanumeric values accepted. Limited to 100 characters. Must be unique to Lead Participant.
Record Begin Date	Date the version of the data set for a Measure Detail became effective	System generated using the system date and time at the point that the version of the data was written to the database.
Record End Date	Date the version of the data record for a Measure Detail ends; always null for current version	System generated.
Measure Detail Name	Name of Measure Detail installed	Required. Alphanumeric values accepted. Limited to 100 characters.
Distribution Company ID	ID of distribution company where Measure Detail is located	Required if Aggregation is 'N' and either Monthly kW Summer or Monthly kW Winter \geq 10kW. Only numeric values accepted. Request from ISO if needed.
Installation Date	Date Measure Detail was installed	Required. Must be a valid date in MM/DD/YYYY format, after June 16, 2006 and prior to the current system date. If more than three years prior to the current system date, the new Measure Detail will be put into Pending and will require ISO review before being applied.
First Month in Market	First month savings can be reported for the Measure Detail	Derived by the system based on Measure Installation Date and the initial performance month resettlement date. Always the first day of a month.
Measure Life	Measure Detail life in years	Required. Must be numeric, with at most one decimal place. Cannot be greater than ISO defined maximum (currently 30 years).
Measure Expiration Date	Month, day and year the Measure Detail will have reached its end of useful life	Not editable. System calculated using Installation Date and Measure Life. Set as the first day of the last month that the measure detail contributes to demand reduction.

Field	Definition	Rules
Program Name	Name of the program in which the Measure Detail belongs	Required. Alphanumeric values accepted. Limited to 100 characters.
Sector	Sector applicable to Measure Detail	Required. Limited to values in Table 5.3.
End Use	Describes type of measure	Required. Limited to values in Table 5.3. Custom measure option for each sector.
Custom End Use	Used when Custom End Use is chosen or for elaboration of non-custom Measure Details	Required if a "Custom Measure" option is chosen for End Use. Limited to 100 characters.
Aggregation	Flag that indicates if multiple end uses are aggregated into a single Measure Detail	Required. Limited to 'Y' and 'N'.
Number of Aggregation (Aggregation Count)	Number of end uses aggregated into a single Measure Detail	Required. Only editable if Aggregation value is 'Y'. Must be greater than zero. Defaults to 1 if Aggregation = N. Rounded to the nearest whole number using standard rounding rules. Limited to seven digits.
Monthly kW Summer	Calculated kW savings from Measure Detail for a summer month	Required. Only numeric values accepted. If Aggregation value is 'Y', the kW value divided by Number of Aggregation must be less than 10kW. Rounded to three decimal places using standard rounding rules.
Monthly kW Winter	Calculated kW savings from Measure Detail for a winter month	Required. Only numeric values accepted. If Aggregation value is 'Y', the kW value divided by Number of Aggregation must be less than 10kW. Rounded to three decimal places using standard rounding rules.
CAMS Measure ID	CAMS Measure ID used to represent full set of Measure Details	Required. Alphanumeric values accepted. Must be an On-Peak or Seasonal Peak CAMS measure that belongs to Lead Participant entering Measure Detail.
Asset	CAMS Asset associated with the Measure Detail	Not editable. System generated based on value chosen for CAMS Measure ID.
Resource	CAMS Resource associated with the asset	Not editable. System generated based on value chosen for CAMS Measure ID.
Load Zone	Load Zone where the resource is located	Not editable. System generated based on value chosen for CAMS Measure ID.

Field	Definition	Rules
Retail Customer Name	Name of retail customer for Measure Detail	Required if Aggregation is 'N' and either Monthly kW Summer or Monthly kW Winter >= 10kW. Alphanumeric values accepted. Limited to 100 characters.
Street	Street address where the Measure Detail is located	Required if Aggregation is 'N' and either Monthly kW Summer or Monthly kW Winter >= 10kW. Alphanumeric values accepted. Limited to 50 characters.
City	City where the Measure Detail is located	Required if Aggregation is 'N' and either Monthly kW Summer or Monthly kW Winter >= 10kW. Alphanumeric values accepted. Limited to 50 characters.
State	State where the Measure Detail is located	Required if Aggregation is 'N' and either Monthly kW Summer or Monthly kW Winter >= 10kW. Limited to the six New England states.
Zip Code	Zip code where the Measure Detail is located	Required if Aggregation is 'N' and either Monthly kW Summer or Monthly kW Winter >= 10kW. Five digits.
Reference Document Name	Name and version of the document from which Measure Detail savings and measure life information is taken	Required. Alphanumeric values accepted. Limited to 100 characters.
Measure Reference Code	Code for Measure Detail as it appears in reference document cited	Required. Alphanumeric values accepted. Limited to 100 characters.
Updated Date	Date that this version of the Measure Detail was created	Not Editable. System generated.
Updated By	The user that created this version of the Measure Detail's data	Not editable. Generated using the name associated with the certificate of the user.
Comments	Free form field for Lead Participant comment entry. The main purpose of this field is expected to be for descriptions of why an update is being done.	Required if the Measure Detail is Closed and a change was made to Installation Date, Measure Life (yrs), Monthly kW Summer, Monthly kW Winter, or Measure. Limited to 4,000 characters.

5.3 Table 3: Sectors/End Uses

SECTOR TYPE	PROGRAM NAME	END USE TYPE
RESIDENTIAL	BEHAVIOR	RES_BEHAVIOR
RESIDENTIAL	CUSTOM MEASURES	RES_CUSTOM
RESIDENTIAL	ENERGY STAR® HOMES	RES_ENERGY_STAR
RESIDENTIAL	ENVELOPE	RES_ENVELOPE
RESIDENTIAL	HOME ENERGY SERVICES	RES_ENERGY_SERVICES
RESIDENTIAL	HOT WATER	RES_HOT_WATER
RESIDENTIAL	HVAC	RES_HVAC
RESIDENTIAL	LIGHTING	RES_LIGHTING
RESIDENTIAL	PROCESS	RES_PROCESS
RESIDENTIAL	REFRIGERATION	RES_REFRIGERATION
LOW INCOME	BEHAVIOR	LOW_BEHAVIOR
LOW INCOME	CUSTOM MEASURES	LOW_CUSTOM
LOW INCOME	HOT WATER	LOW_HOT_WATER
LOW INCOME	ENVELOPE	LOW_ENVELOPE
LOW INCOME	HOME ENERGY SERVICES	LOW_ENERGY_SERVICES
LOW INCOME	HVAC	LOW_HVAC
LOW INCOME	LIGHTING	LOW_LIGHTING
LOW INCOME	PROCESS	LOW_PROCESS
LOW INCOME	REFRIGERATION	LOW_REFRIGERATION
COMMERCIAL	BEHAVIOR	COM_BEHAVIOR
COMMERCIAL	COMPRESSED AIR	COMPRESSED_AIR
COMMERCIAL	CUSTOM MEASURES	COM_CUSTOM
COMMERCIAL	ENVELOPE	COM_ENVELOPE
COMMERCIAL	FOOD SERVICE	COM_FOOD_SERVICE
COMMERCIAL	HOT WATER	COM_HOT_WATER
COMMERCIAL	HVAC	COM_HVAC
COMMERCIAL	LIGHTING	COM_LIGHTING
COMMERCIAL	MOTORS/DRIVES	COM_MOTORS_DRIVES
COMMERCIAL	PROCESS	COM_PROCESS
COMMERCIAL	REFRIGERATION	COM_REFRIGERATION