



# Energy Efficiency Measure Database (EEM)

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*Customer Training Webinar*

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# Disclaimer for Customer Training

ISO New England (ISO) provides training to enhance participant and stakeholder understanding.

Because not all issues and requirements are addressed by the training, participants and other stakeholders should not rely solely on this training for information but should consult the effective [Transmission, Markets and Services Tariff](#) (“Tariff”) and the relevant [Market Manuals](#), [Operating Procedures](#) and [Planning Procedures](#) (“Procedures”). Training examples are provided for illustrative purposes only. Company names and numerical values used are fictitious.

In case of a discrepancy between training provided by ISO and the Tariff or Procedures, the meaning of the Tariff and Procedures shall govern.

# Before We Begin

***Today's presentation*** is available on the  
ISO website ([www.iso-ne.com](http://www.iso-ne.com)) at:

**Participate > Training > Training Materials**

[Document Title: Energy Efficiency Measure Database Presentation](#)

- WebEx recording of this session will be posted to the same location within 5 business days
- Questions & Answers
- Evaluation

# Objectives

**At the completion of this training, you will be able to use EEM to:**

- Understand data elements & validations
- Enter new data
- Update existing data
- Generate reports



# Agenda

- Overview
- Security and application access
- Measure detail concepts
- Data fields and validations
- User interface
- Web services
- Cutover and implementation considerations



# ENERGY EFFICIENCY MEASURE DATABASE

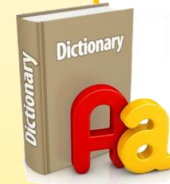
## *Overview*



# What is EEM?

## EEM

EEM is a database that contains detailed measure level data for On-Peak and Seasonal Peak Demand Resources participating in FCM with energy efficiency.



# EEM Data Utilization by ISO

- Performance verification
- Existing capacity qualification
- Auditing
- Trending and analysis
- System planning
- Market monitoring
- Participant data needs



# Tariff References

- **Section I – General Terms and Conditions**
- **Section I.2.2 – Definitions**
- **Section III.13 – Forward Capacity Market**
  - III.13.1.4.3.1 Measurement and Verification Documents Applicable to On-Peak Demand Resources, and Seasonal Peak Demand Resources.
  - III.13.1.4.3.1.4 Record Requirement of Retail Customers Served.



<http://www.iso-ne.com/participate/rules-procedures/tariff>



# Manual References

Relevant *ISO New England Manuals* are located at:

<http://www.iso-ne.com/participate/rules-procedures/manuals>

- **M-MVDR Measurement and Verification of Demand Reduction Value from Demand Resources**
  - Section 12.2 (1) and (2) contain specific data requirements
  - EEM data may support the monthly supporting documentation requirements in Section 13.2 (5)
- **M-RPA Registration and Performance Auditing**
- **M-20 Forward Capacity Market (FCM)**
- **M-28 Market Rule 1 Accounting**

# Interactions With EEM

Lead participants access EEM to interact with energy efficiency measure data such as:

- **Entering new data**
- **Updating existing data**
- **Generating reports**



# Connecting to EEM

- Two methods:
  - User interface
  - Web services
- Documentation for both interfaces:
  - [http://www.iso-ne.com/static-assets/documents/2015/01/eem\\_database\\_user\\_guide.pdf](http://www.iso-ne.com/static-assets/documents/2015/01/eem_database_user_guide.pdf)
  - <http://www.iso-ne.com/participate/support/upload-download>



# Questions



# SECURITY & APPLICATION ACCESS

*EEM*



# Accessing EEM Overview

Contact your company's  
Security Administrator (SA)

SA assigns you an EEM role

SA issues digital certificate

Install digital certificate

Go to Sandbox or SMD EEM

# Application Access



- Managed through Customer and Asset Management System (CAMS)
- Lead Participant's Security Administrator (SA):
  - Assigns roles (detailed next)
  - Issues digital certificates to users that don't already have one



*EEM, CAMS, and other User Guides:*

<http://www.iso-ne.com/participate/support/user-guides>



# User Roles

## Viewer

- Read-only access
- View information
  - User interface
  - Web services

## Maintainer

- Read-write access
- Create, edit, view measure info
  - User interface
  - Web services



*There are separate Viewer and Maintainer roles available for both the Sandbox and Production EEM.*

# Environments

## Sandbox

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

***Available now***

Used for:

- Testing code
- Employee training

## Production

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

***Available Feb 24, 2015***

Used for:

- System of record
- Use with validated code only



*All measure details installed after June 16, 2006 whose measure lives have not expired as of June 1, 2015 are required.*

# Questions



# MEASURE DETAIL CONCEPTS

*EEM*



# Measure Detail Overview

- Underlie existing On-Peak or Seasonal Peak Measures registered in the Customer and Asset Management System
- Contains detailed measure level data for a single measure or an allowed aggregation of measures such as:
  - Installation date
  - Measure life
  - Summer and winter savings, etc.
- If a measure detail needs to be changed, a new version is created
  - This occurs after ISO review of the change if the change requires ISO review


# Versioning



**Only one version of a Measure Detail is effective at any given time.**

- *Record Begin Date* is set to the system time when a Measure Detail record is created, updated, or approved.
- *Record End Date* is the end of the effective period for that set of data.
- When an update is performed, the *Record End Date* for the existing record is 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.

# First Month in Market

- First possible month the Measure Detail can be included in the CAMS monthly performance value for an asset
  - Determined by the EEM system at the time of Measure Detail creation by taking the later of:
    - First of the month following the Installation Date
    - Date found by subtracting 70 days from the current system time and taking the first of the month within which this date falls.
-  Calculations model data submission deadlines from M-28.



# Measure Expiration Month

- Last month that a Measure Detail can be included in the CAMS monthly performance value for the asset
- Determined by EEM via the following process:
  - Convert the entered measure life value to months and truncate fractional month to a whole number.  
*For example:* 1.6 years x 12 = 19.2 = 19 month life.
  - Add the calculated month value to the installation date, and round down to the first of the month.
  - *Measure Expiration Date* and the *First Month in Market* may be recalculated if a user modifies the installation date or measure life.
    - May trigger ISO review of the change





# Market Participation Date Range

## Example 1

Measure installed June 5, 2015 with a 5 year life, and reported in EEM on October 1, 2015.

then:

- **July 2015 is first month in market**
  - Measure installed prior to July 2015
  - July 2015 data correction deadline had *not* passed as of October 1 2015.
- **June 2020 is measure expiration month**
  - Measure expiration date is June 5, 2020
- **5 years in market**

## Example 2

Measure installed on June 5, 2015 with a 5 year life, and reported in EEM on November 1, 2016.

then:

- **August 2016 is first month in market**
  - Measure installed prior to July 2015
  - August 2016 data correction deadline had *not* passed as of November 1, 2016.
- **June 2020 is measure expiration month**
  - Reporting date does not change expiration month
- **3 years, 11 months in market**
  - Due to lag between installation and reporting

# No Deleting of a Measure Level Detail

- Once submitted or approved it *cannot be deleted* from the database.
- If erroneously added, it can be modified so that it will *not* affect future reporting.  
*For example:* Both the Summer and Winter kW could be set to zero
- This is a function of the system architecture as well as the need for an audit trail.

# Questions



# DATA FIELDS AND VALIDATIONS

*EEM*



# User Guide



**The EEM User Guide goes into more detail about data fields and validations. Here's the link:**



<http://www.iso-ne.com/participate/support/user-guides>

<b>Field</b>	<b>Definition</b>	<b>Rules</b>
<b>Lead Participant ID</b>	Customer Name and ID for user.	<b>Not Editable.</b> System generated.
<b>ISO Measure Detail ID</b>	Each ISO Measure Detail ID is unique throughout the EEM.	<b>Not Editable.</b> System generated after successful creation of Measure Detail.
<b>LP Measure Detail ID</b>	Provides participant with key field to match with their database.	<b>Required.</b> Alphanumeric values accepted. Limited to 100 characters. Must be unique to Lead Participant.
<b>Record Begin Date</b>	Date the version of the data set for a Measure Detail became effective.	<b>System generated</b> using the system date and time at the point that the version of the data was written to the database.
<b>Record End Date</b>	Date the version of the data set for a Measure Detail expired.	<b>System generated.</b>
<b>Measure Detail Name</b>	Name of Measure Detail installed.	<b>Optional.</b> Alphanumeric values accepted. Limited to 100 characters.
<b>Distribution Company ID</b>	ID of distribution company where Measure Detail is located.	<b>Required if</b> Aggregation is 'N' and either Monthly kW Summer or Monthly kW Winter >= 10kW. Only numeric values accepted.
<b>Installation Date</b>	Date Measure Detail was installed.	<b>Required.</b> 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.

<b><i>Field</i></b>	<b><i>Definition</i></b>	<b><i>Rules</i></b>
<b>First Month in Market</b>	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.
<b>Measure Life</b>	Measure Detail life in years.	<b>Required.</b> Must be numeric, with at most one decimal place. Cannot be greater than ISO defined maximum (currently 30 years).
<b>Measure Expiration Date</b>	Month, day and year the Measure Detail will have reached its end of useful life.	<b>Not editable.</b> System calculated using Installation Date and Measure Life.
<b>Program Name</b>	Name of the program in which the Measure Detail belongs.	<b>Required.</b> Alphanumeric values accepted. Limited to 100 characters.
<b>Sector</b>	Sector applicable to measure detail.	<b>Required.</b> Alphanumeric values accepted.
<b>End Use</b>	Describes type of measure.	<b>Required.</b> Alphanumeric values accepted. Custom measure option for each sector.
<b>Custom End Use</b>	Used when Custom End Use is chosen or for elaboration of non-custom Measure Details.	<b>Required if</b> a “Custom Measure” option is chosen for End Use. Limited to 100 characters.
<b>Aggregation</b>	Flag that indicates if multiple end uses are aggregated into a single Measure Detail.	<b>Required.</b> Limited to “Y” and “N”.

<b>Field</b>	<b>Definition</b>	<b>Rules</b>
<b>Number of Aggregation (Aggregation Count)</b>	Number of end uses aggregated into a single Measure Detail.	<b>Required.</b> 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.
<b>Monthly kW Summer</b>	Calculated kW savings from Measure Detail for a summer month.	<b>Required.</b> 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.
<b>Monthly kW Winter</b>	Calculated kW savings from Measure Detail for a winter month.	<b>Required.</b> 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.
<b>CAMS Measure ID</b>	CAMS Measure ID used to represent full set of Measure Details.	<b>Required.</b> Alphanumeric values accepted. Must be an On-Peak or Seasonal Peak CAMS measure that belongs to Lead Participant entering measure detail.



<b>Field</b>	<b>Definition</b>	<b>Rules</b>
<b>Asset</b>	CAMS Asset associated with the Measure Detail.	<b>Not editable.</b> System generated based on value chosen for CAMS Measure ID.
<b>Resource</b>	CAMS Resource associated with the asset.	
<b>Load Zone</b>	Load Zone where the resource is located.	
<b>Retail Customer Name</b>	Name of retail customer for Measure Detail.	<b>Required if</b> Aggregation is 'N' and either Monthly kW Summer or Monthly kW Winter $\geq$ 10kW. Alphanumeric values accepted. Limited to 100 characters.
<b>Street</b>	Street address where the Measure Detail is located.	<b>Required if</b> Aggregation is 'N' and either Monthly kW Summer or Monthly kW Winter $\geq$ 10kW. Alphanumeric values accepted. Limited to 50 characters.
<b>City</b>	City where the Measure Detail is located.	
<b>State</b>	State where the Measure Detail is located.	<b>Required if</b> Aggregation is 'N' and either Monthly kW Summer or Monthly kW Winter $\geq$ 10kW. Limited to the six New England states.
<b>Zip Code</b>	Zip code where the Measure Detail is located.	<b>Required if</b> Aggregation is 'N' and either Monthly kW Summer or Monthly kW Winter $\geq$ 10kW. Five digits.

<b>Field</b>	<b>Definition</b>	<b>Rules</b>
<b>Reference Document Name</b>	Name and version of the document from which Measure Detail savings and measure life information is taken.	<b>Required.</b> Alphanumeric values accepted. Limited to 100 characters.
<b>Measure Reference Code</b>	Code for Measure Detail as it appears in reference document cited.	<b>Required.</b> Alphanumeric values accepted. Limited to 100 characters.
<b>Updated Date</b>	Date that this version of the Measure Detail was created.	<b>Not Editable.</b> System generated.
<b>Updated By</b>	The user that created this version of the Measure Detail's data.	<b>Not editable.</b> Generated using the name associated with the certificate of the user.
<b>Comments</b>	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.	<b>Required if</b> 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.

# Questions



# USER INTERFACE

*EEM*



# SMD Applications Sandbox Home Page

Market System → SMD Applications Sandbox Home Page

Sandbox Legend

**Production  
Project**

**Internal Transactions**

**External Transactions**

(Includes New Brunswick DA Pnode Change)

**Bids & Offers  
(Registered Users)**

**Demand Resource  
Market User Interface**

**Financial Transmission Rights  
(Registered Users)**

**Forward Reserve Market  
Auction**

**Submit Meter Reading**

**CROW  
Outage Scheduler**

**Submit Peak Contribution**

**Forward Reserve Assignment**

**Submit Monthly Regional Network  
Load**

**NX Application  
(NX-9 and NX-12D)**

**Customer and Asset  
Management System**

**Energy Efficiency Measure  
Database**

## Informational Links

[Transmission System Information](#)

[Satellite Information](#)

[LCC CMS](#)

[LCC Vision Learning](#)

**Internal Transactions**

**Bids & Offers  
(Registered Users)**

**Financial Transmission Rights  
(Registered Users)**

**Submit Meter Reading**

**Submit Peak Contribution**

**Submit Monthly Regional Network Load**

**Financial Assurance  
Management**

**Forward Capacity Market CSO Bilateral Contracts**

**Demand Resource  
Market User Interface**

**Claimed Capability Auditing Tool**

**DR Audit and Testing Tool**

**External Transactions**

**Customer and Asset  
Management System**

**Forward Reserve Market  
Auction**

**CROW  
Outage Scheduler**

**Forward Reserve Assignment**

**Forward Capacity Tracking System**

**Forward Capacity Market  
Reconfiguration Auction**

**Supplemental Availability Designation**

**NX Application  
(NX-9 and NX-12D)**

**Energy Efficiency Measure Database (EEM)**



# User Interface – Default View

## Energy Efficiency Measure Database

Search Add Measure Detail Pending

**Search Criteria**


<b>As Of Date:</b> 01/27/2015	<b>Retail Customer Name:</b> <input type="text"/>	<b>Program Name:</b> <input type="text"/>	<b>Market Month:</b> <input type="text"/>
<b>ISO Measure Detail ID:</b> <input type="text"/>	<b>Asset ID:</b> <input type="text"/>	<b>Reference Code:</b> <input type="text"/>	<b>Min Installation:</b> <input type="text"/>
<b>Lead Participant:</b> <input type="text"/>	<b>Resource ID:</b> <input type="text"/>	<b>City:</b> <input type="text"/>	<b>Max Installation:</b> <input type="text"/>
<b>LP Measure Detail ID:</b> <input type="text"/>	<b>Load Zone ID:</b> <input type="text"/>	<b>State:</b> <input type="text"/>	<b>Min Expiration:</b> <input type="text"/>
<b>Sector/End Use:</b> <input type="text"/>			<b>Max Expiration:</b> <input type="text"/>

Search Reset

**Search Results**

Lead Participant(ID)	Measure Detail ID	Measure Detail Name	Installation Date	First Month in Market	Life	Measure Expiration Date	Summer kW	Winter kW	Load Zone(IC)	Resource(ID)	Asset(ID)	Program Name	End Use	Retail Customer Name	Pending Change

**Only use the EEM navigation buttons.**



Using the web browser's buttons will cause an early exit from the application.

Totals: 26759.... 35278....

View Detail CSV

# Add Measure Detail

## Energy Efficiency Measure Database

Search Add Measure Detail Pending

Search Criteria

As Of Date: 03/2015  
Retail Customer Name:   
Asset ID:   
Resource ID:   
LP Measure Detail ID:   
Reference Code:   
City:   
Sector/End Use:

# Energy Efficiency

Search Add Measure Detail Pending

Search Criteria

Market Month:   
Min Installation:   
Max Installation:   
Min Expiration:   
Max Expiration:

Search Results

Lead Participant(ID)	Measure Detail ID	Measure Detail Name
Commercial Lighting C...	1881	LED Lighting
Commercial Lighting...	1882	Non-Sensit Special...
Commercial Lighting...	1883	Non-Sensit Special...
Commercial Lighting...	1884	LED CFL
Commercial Lighting...	1885	LED Dimmable CFL
Commercial Lighting...	1886	Non-Sensit Special...
Commercial Lighting...	1887	LED CFL
Commercial Lighting...	1888	LED CFL
Commercial Lighting...	1889	LED CFL

Program Name	End Use	Retail Customer Name	Pending Change
LED CFL	Lighting	WELLS...	Yes
LED CFL	Lighting	...	Yes
LED CFL	Lighting	...	Yes
LED CFL	Lighting	...	Yes
LED CFL	Lighting	...	Yes
LED CFL	Lighting	...	Yes
LED CFL	Lighting	...	Yes
LED CFL	Lighting	...	Yes
LED CFL	Lighting	...	Yes
LED CFL	Lighting	...	Yes

Program Name	End Use	Retail Customer Name	Pending Change
LED CFL	Lighting	WELLS...	Yes
LED CFL	Lighting	...	Yes
LED CFL	Lighting	...	Yes
LED CFL	Lighting	...	Yes
LED CFL	Lighting	...	Yes
LED CFL	Lighting	...	Yes
LED CFL	Lighting	...	Yes
LED CFL	Lighting	...	Yes
LED CFL	Lighting	...	Yes
LED CFL	Lighting	...	Yes



# Energy Efficiency Measure Database

Search  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: N

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:

Reference Code:

Date Updated:

Updated By:

Comments:

**Required fields have a red border.**

**Some CAMS fields are only required in certain configurations.**

Submit

Cancel

# Validation Errors

## 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: N

CAMS Fields

Measure:

Asset:

Resource:

Load Zone:

Customer Name:

Street:

City:

State:

Zip:

Reference Documentation

Reference Document Name:

Measure Reference Code:

**Validation** ✕

Please correct the indicated validation errors and try again

OK

# Successful Entry of Measure Details

## Energy Efficiency Measure Database

Search Add Measure Detail Pending

**Measure Detail** Pending History

**Basic**

Lead Participant: [text box]

ISO Measure Detail ID: [text box]

LP Measure Detail ID: [text box]

Measure Detail Name: [text box]

Distribution Company: [text box]

Installation Date: 12/01/2010 [calendar icon]

First Month in Market: 10/01/2014 [calendar icon]

Measure Life (yrs): 22 [text box]

Measure Expiration Date: [text box] [calendar icon]

Program Name: [text box]

Sector/End Use: [dropdown menu]

Custom End Use: [text box]

Aggregation: [dropdown menu]

Number of Aggregation: 1 [text box]

Monthly kW Summer: 11 [text box]

Monthly kW Winter: 3 [text box]

**CAMS Fields**

Measure: [dropdown menu]

Asset: [text box]

Resource: [text box]

Load Zone: [text box]

**Retail Customer**

Retail Customer Name: [text box]

Street: [text box]

City: [text box]

State: [dropdown menu]

Zip: [text box]

**Reference Documentation**

Reference Document Name: [text box]

Measure Reference Code: [text box]

**Misc**

Date Updated: [text box]

Updated By: [text box]

Comments: [text box]

**Info** [close icon]

Data has been successfully added

OK

Edit



# Search Filters

## Energy Efficiency Measure Database

[Search](#) [Add Measure Detail](#) [Pending](#)

**Search Criteria**

<b>As Of Date:</b> <input type="text" value="01/27/2015"/>	<b>Retail Customer Name:</b> <input type="text"/>	<b>Program Name:</b> <input type="text"/>
<b>ISO Measure Detail ID:</b> <input type="text"/>	<b>Asset ID:</b> <input type="text"/>	<b>Reference Code:</b> <input type="text"/>
<b>Lead Participant:</b> <input type="text"/>	<b>Resource ID:</b> <input type="text"/>	<b>City:</b> <input type="text"/>
<b>LP Measure Detail ID:</b> <input type="text"/>	<b>Load Zone ID:</b> <input type="text"/>	<b>State:</b> <input type="text"/>
<b>Sector/End Use:</b> <input type="text"/>		

**Market Month:**

**Min Installation:**

**Max Installation:**

**Min Expiration:**

**Max Expiration:**

**Search Results**

Lead Participant(ID)	Measure Detail ID	Measure Detail Name	Installation Date	First Month in Market	Life	Measure Expiration Date	Summer kW	Winter kW	Load Zone(IC)	Resource(ID)	Asset(ID)	Program Name	End Use	Retail Customer Name	Pending Change
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
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...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Totals: 26759.... 35278....

# Search Filter Descriptions



Name	Description
<b><i>Market Month</i></b>	Records with a First Month in Market date that is prior or equal to the month chosen as a search criterion that have not reached their expiration date
<b><i>Min Installation</i></b>	Records with an Installation Date that is later than or equal to the date chosen as a search criterion
<b><i>Max Installation</i></b>	Records with an Installation Date that is earlier than or equal to the date chosen as a search criterion
<b><i>Min Expiration</i></b>	Records with a Measure Expiration Date that is later than or equal to the date chosen as a search criterion
<b><i>Max Expiration</i></b>	Records with a Measure Expiration Date that is earlier than or equal to the date chosen as a search criterion

# Measure Detail Search

Search Results			
Lead Participant(ID)	Measure Detail ID	Measure Detail Name	Installation Date
...	...	...	...
...	...	...	...
...	...	...	...
...	...	...	...
...	...	...	...
...	...	...	...
...	...	...	...
...	...	...	...
...	...	...	...
...	...	...	...
...	...	...	...
...	...	...	...

**Search Results**

- Sort Ascending
- Sort Descending
- Columns





# Selecting Details to View

## Energy Efficiency Measure Database

Search Add Measure Detail Pending

**Search Criteria**

**As Of Date:** 01/27/2015

**Retail Customer Name:**

**ISO Measure Detail ID:**

**Asset ID:**

**Lead Participant:**

**Resource ID:**

**LP Measure Detail ID:**

**Load Zone ID:**

**Sector/End Use:**

- Lead Participant(ID)
- Measure Detail ID
- Measure Detail Name
- Installation Date
- First Month in Market
- Life Expiration Date
- Measure Summer kW
- Measure Winter kW
- Load Zone(ID)
- Resource(ID)
- Asset(ID)
- Program Name
- End Use
- Retail Customer Name
- Pending Change

<b>Program Name:</b> <input type="text"/>	<b>Reference Code:</b> <input type="text"/>	<b>City:</b> <input type="text"/>						
<input type="button" value="Reset"/>								
Summer kW	Winter kW	Load Zone(IC)	Resource(ID)	Asset(ID)	Program Name	End Use	Retail Customer Name	Pending Change

Use the checkboxes to select which columns to view



**Search Results**

Lead Participant(ID)	Measure Detail ID	Measure Detail Name	Installation Date	First Month in Market

Totals:

Sort Ascending

Sort Descending

Columns



# Measure Detail CSV

## Energy Efficiency Measure Database

Search Add Measure Detail Pending

### Search Criteria

As Of Date: <input type="text" value="01/28/2015"/>	Retail Customer Name: <input type="text"/>	Program Name: <input type="text"/>	Market Month: <input type="text"/>
ISO Measure Detail ID: <input type="text"/>	Asset ID: <input type="text"/>	Reference Code: <input type="text"/>	Min Installation: <input type="text"/>
Lead Participant: <input type="text"/>	Resource ID: <input type="text"/>	City: <input type="text"/>	Max Installation: <input type="text"/>
LP Measure Detail ID: <input type="text"/>	Load Zone ID: <input type="text"/>	State: <input type="text"/>	Min Expiration: <input type="text"/>
Sector/End Use: <input type="text"/>			Max Expiration: <input type="text"/>

Search

Reset

### Search Results

Lead Participant(ID)	Measure Detail ID	Measure Detail Name	Installation Date	First Month in Market	Life	Measure Expiration Date	Summer kW	Winter kW	Load Zone(IC)	Resource(ID)	Asset(ID)	Program Name	End Use	Retail Customer Name	Pending Change

Click on the CSV button to generate a file containing the current search results.

View Detail

CSV

# View a Selected Measure Detail

## Energy Efficiency Measure Database

Search Add Measure Detail Pending

**Search Criteria**

As Of Date: 01/28/2015	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

**Search Results**

Lead Participant(ID)	Measure Detail ID	Measure Detail Name	Installation Date	First Month in Market	Life	Measure Expiration Date	Summer kW	Winter kW	Load Zone(IC)	Resource(IC)	Retail	Ending
United Illuminating Co...	1881	LED OFFICE	06/01/2013	06/01/2014	10	05/01/2024	8.2	8.225	CT (0000)	LED (0000)		ng
Commercial Light an...	1882	New General Special...	07/01/2013	07/01/2014	5	07/01/2018	-8.002	-8.125	CT (0000)	CLMP (0...		
Commercial Light an...	1883	New General Special...	07/01/2013	07/01/2014	5	06/01/2018	-8.000	-8.000	CT (0000)	CLMP (0...		
Commercial Light an...	1884	LED OFFICE	06/01/2013	06/01/2014	6	07/01/2017	-8.000	-8.100	CT (0000)	CLMP (0...		
Commercial Light an...	1885	LED Commercial Bldg	07/01/2013	07/01/2014	6	06/01/2019	-8.000	-8.125	CT (0000)	LED (0000)		
Commercial Light an...	1886	New General Special...	06/01/2013	06/01/2014	10	05/01/2023	-8.025	-8.125	CT (0000)	CLMP (0...		
Commercial Light an...	1887	LED OFFICE	06/01/2013	06/01/2014	6	07/01/2019	-8.000	-8.125	CT (0000)	CLMP (0...		
Commercial Light an...	1888	LED OFFICE	06/01/2013	06/01/2014	6	07/01/2019	-8.000	-8.100	CT (0000)	CLMP (0...		
Commercial Light an...	1889	LED OFFICE	06/01/2013	06/01/2014	6	07/01/2017	-8.000	-8.000	CT (0000)	CLMP (0...		
Commercial Light an...	1890	LED Commercial Bldg...	06/01/2013	06/01/2014	10	05/01/2024	-8.025	-8.125	CT (0000)	LED (0000)		
Commercial Light an...	1891	General Specialty CT...	06/01/2013	06/01/2014	6	06/01/2019	-8.000	-8.125	CT (0000)	CLMP (0...		
Commercial Light an...	1892	General Specialty CT...	06/01/2013	06/01/2014	6	06/01/2019	-8.000	-8.125	CT (0000)	CLMP (0...		

- 1. Perform the search
- 2. Highlight the desired Measure Detail
- 3. Click on the View Detail button

Totals: 26759 45278....

View Detail CSV

# View and Update a Measure Detail

- From the Search Results screen, the version of the Measure Detail displayed is the version 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.
- After adding or updating a Measure Detail, the version of the Measure Detail displayed is the version just created or updated.



## **Edit button:**

- Only available to users with the EEM Maintainer role
- Only available when viewing the most recent version of the Measure Detail
- Makes the fields editable for update

# Energy Efficiency Measure Database

Search Add Measure Detail Pending

Measure Detail

Pending

History

## Basic

Lead Participant:	Commercial Light and Power Company, TX
ISO Measure Detail ID:	12345678901234
LP Measure Detail ID:	Commercial Light and Power Company, TX
Measure Detail Name:	Commercial Light and Power Company, TX
Distribution Company:	12345678901234
Installation Date:	12345678901234
First Month in Market:	12345678901234
Measure Life (yrs):	12345678901234
Measure Expiration Date:	12345678901234
Program Name:	Commercial Light and Power Company, TX
Sector/End Use:	Commercial Light and Power Company, TX
Custom End Use:	Commercial Light and Power Company, TX
Aggregation:	Commercial Light and Power Company, TX
Number of Aggregation:	12345678901234
Monthly kW Summer:	12345678901234
Monthly kW Winter:	12345678901234

## CAMS Fields

Measure:	12345678901234
Asset:	Commercial Light and Power Company, TX
Resource:	Commercial Light and Power Company, TX
Load Zone:	Commercial Light and Power Company, TX

## Retail Customer

Retail Customer Name:	1234
Street:	1234
City:	1234
State:	TX
Zip:	1234

## Reference Documentation

Reference Document Name:	1234
Measure Reference Code:	1234

## Misc

Date Updated:	1234
Updated By:	1234
Comments:	This is an initial data point from a pilot program conducted by 12345678901234.

Edit

# 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:

## 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:

Click on the Edit button at the bottom of the page.

Submit Button will appear.  
Some fields can be edited.

Edit

# Pending Status

Changes to the following may change the status to Pending:

- Installation Date
- CAMS Measure
- Measure Life (years)
- Monthly kW Summer
- Monthly kW Winter



ISO review is required before changes are applied.

# Measure Detail Modification State

## OPEN

Data correction deadline for the First Month in Market has ***not*** passed.

## CLOSED

Data correction deadline for its First Month in Market has passed.



**Any changes that impact a *closed* month require an explanatory comment and ISO review.**



# Measure Details in Pending Status

- When in pending status:
  - No further edits can be made
  - Must be reviewed before the changes become effective
  - Users may view and cancel changes
- Measure Level Details cancelled by the LP or rejected by ISO are *not saved* to the database and *not recorded* in the Measure Level Detail History.
- ISO notifies the LP of the disposition of the change (approved/rejected).

## Examples of modifications subject to ISO review

- Installation Date is more than three years prior to the date of Measure Detail entry (this will be suspended during cutover.)
- Monthly kW winter values are being modified for a Measure Detail that is *closed*



# View Pending Changes

## Energy Efficiency Measure Database

Search Add Measure Detail Pending

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

# View Measure Detail History

## Energy Efficiency Measure Database

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 ID	LP Measure Detail ID

# Measure Detail History Example

**Energy Efficiency Measure Database**

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 (ID)	Program Name	End Use	Retail Customer Name	Aggregat Count	Updated By
52000	02/02/2015		CURRENT	ggggggggg...		02/01/2015	03/01/2015	3.1	03/01/2018	1	2	52100-01...	light	Lighting		1	Joseph Sal...
52000	02/02/2015	02/02/2015	CURRENT	ggggggggg...		02/01/2015	03/01/2015	3	01/01/2018	1	2	52100-01...	light	Lighting		1	Joseph Sal...

# Questions



# WEB SERVICES

*EEM*



# Web Services Overview

- Certificate holders with access to the user interface have the same access rights to web services
- Web services accessible to authorized participants through an ISO New England published URL
- Client application that accesses EEM can be written in nearly any modern enterprise technology and language such as Java
- ISO New England gives limited support for Java by providing sample implementations

# Web Services Data Exchange Specification



- Purpose is to help market participants:
  - Develop interfaces that interact and exchange market data with EEM web services
  - Comprehend and construct the market data messages essential for data exchange with EEM
- Explains how to access the EEM web services
- Lays out the format and construction of messages used to exchange data
- Describes authentication and authorization methods used to ensure security
- Contains examples of how to:
  - Code to connect to the web services with a certificate
  - Retrieve the list of Measure Details associated with the company ID the certificate is from

# Questions





# CUTOVER CONSIDERATIONS

*EEM*



# Data Cutover Considerations

- All measures installed since June 16, 2006 that still contribute to CAMS monthly performance values (MPV) must be input into EEM.
- ISO intends to use EEM for reviewing the June 2015 MPV's.
- To the extent that cutover can be completed earlier, it will be useful to compare EEM reporting with other data submitted for the 2015 Existing Capacity Qualification
  - EEM intended to be used for future ExCap qualification cycles
- All web services code should be tested in the EEM Sandbox environment prior to its use with the production system.



Measures installed more than 3 years before the current system date will be set to Pending which may slow the transfer rate and require ISO review to become effective.

# Post-Cutover Expectations

## Participants

- Provide Measure Details in EEM on the same schedule as MPV data is submitted in CAMS
- Report EEM data as it becomes available
  - EEM does not have date-driven restrictions for data entry

## ISO

- Approve or reject pending measures
- Notify participants of actions taken on pending Measure Detail changes
- Compare approved EEM data to CAMS MPV and supporting documents



ISO will **not** use EEM data as a substitute for CAMS MPV submissions.

# Questions



# Customer Support



## Ask ISO (preferred)

- Self-service interface for submitting inquiries
- Accessible through the SMD Applications Homepage
- Requires a valid digital certificate with the role of Ask ISO/External User (Contact your security administrator for assistance)

### Other Methods of Contacting Customer Support

Method	Contact Information	Availability
Email	<a href="mailto:custserv@iso-ne.com">custserv@iso-ne.com</a>	Anytime
Phone*	(413) 540-4220	Monday through Friday 8:00 a.m. to 5:00 p.m. (EST)
Pager (emergency inquiries)	(877) 226-4814	Outside of regular business hours

\* Recorded/monitored conversations

# Evaluations

