Passive Demand Resources
Registration & Auditing

On-Peak and Seasonal Peak Demand Resources

Trista Ristvedt
Analyst, Asset Registration & Auditing
Introduction
<table>
<thead>
<tr>
<th>Acronyms</th>
<th>Full Form</th>
<th>Acronyms</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATT</td>
<td>demand response audit test tool</td>
<td>LM</td>
<td>load management</td>
</tr>
<tr>
<td>BLTS</td>
<td>baseline telemetry system</td>
<td>MPV</td>
<td>monthly performance values</td>
</tr>
<tr>
<td>CAMS</td>
<td>Customer Asset Management System</td>
<td>PFP</td>
<td>pay for performance</td>
</tr>
<tr>
<td>CSO</td>
<td>capacity supply obligation</td>
<td>PRD</td>
<td>price-responsive demand</td>
</tr>
<tr>
<td>DG</td>
<td>distributed generation</td>
<td>RTDR</td>
<td>real-time demand response</td>
</tr>
<tr>
<td>DRA</td>
<td>demand response asset</td>
<td>RTU</td>
<td>remote terminal unit</td>
</tr>
<tr>
<td>DRI</td>
<td>demand response integration</td>
<td>SA</td>
<td>security administrator</td>
</tr>
<tr>
<td>DRMUI</td>
<td>demand response market user interface</td>
<td>SMD</td>
<td>Standard Market Design</td>
</tr>
<tr>
<td>DRWG</td>
<td>Demand Resources Working Group</td>
<td>SMS</td>
<td>Settlements Market System</td>
</tr>
<tr>
<td>EE</td>
<td>energy efficiency</td>
<td>SSO</td>
<td>single sign-on</td>
</tr>
<tr>
<td>EEM</td>
<td>energy efficiency measure database</td>
<td>UI</td>
<td>user interface</td>
</tr>
<tr>
<td>eMkt</td>
<td>eMarket</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Price-Responsive Demand Training

<table>
<thead>
<tr>
<th>Release Date</th>
<th>Training Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct 23, 2017</td>
<td>Demand Resources Working Group: <a href="#">Fully Integrated Price Responsive Demand Presentation</a></td>
</tr>
<tr>
<td>Nov 7, 2017</td>
<td><a href="#">Price-Responsive Demand Overview</a></td>
</tr>
<tr>
<td>March 8, 2018</td>
<td><a href="#">Q1 Settlements Forum</a></td>
</tr>
<tr>
<td>March 22, 2018</td>
<td><a href="#">Demand Response Registration</a></td>
</tr>
<tr>
<td>March 27, 2018</td>
<td><a href="#">Demand Response Auditing</a></td>
</tr>
<tr>
<td>Today</td>
<td><a href="#">Passive Demand Resource Registration and Auditing</a></td>
</tr>
</tbody>
</table>
Purpose

Prepare lead market participants to use redesigned user interfaces for registering and auditing on-peak and seasonal peak demand resources that will go into effect with price-responsive demand (PRD) and pay for performance (PFP) on June 1, 2018
Objectives

After watching this presentation you will be able to:

• Enroll a passive asset in the new Customer Asset Management System (CAMS) environment
• Schedule an audit, check audit status, and verify audit results in the new demand response audit and testing tool (ATT) environment
• Understand changes for uploading measure details to the energy efficiency measure (EEM) database
• Understand how timing of recording monthly performance values (MPVs) in CAMS affects scarcity condition performance scoring
Topics

• Introduction
• PRD Overview
• SMD Homepage
• Enroll a Passive Asset in CAMS
• ATT tasks
• Data Reporting Requirements
• Changes to EE Data Reporting
• Pay for Performance
PRD Overview

Trista Ristvedt
Price Responsive Demand
Project - High Level Timeline
For Participant Use
Updated on 3/20/2018

1/22 - 5/31
Participants Develop Web Services for eMkt and DRMUI
DDE’s complete RTU Programming and Testing

6/1
Go Live!

3/22
Webinar: DRA/DRR Registration

3/27
Webinar: DRR Auditing

3/29
Webinar: CAMS and DR-ATT Changes for On-peak and Seasonal Peak Resources

4/2
CAMS, DRMUI and Meter Reading UI Sandboxes Deployed

4/30
Last day for RTDR audits to be dispatched

5/1
CAMS, ATT, BLTS Migration

5/1 - 5/13
Participants may reconfigure DRA/DRR Mappings in new CAMS

5/14
Network Model Release: Manual RTDR Dispatch Until 6/1

Note: dates are subject to change
What’s Changing for Passive Demand Resources?

• Asset registration steps
• Audit request and review steps
• EEM – CAMS data key
• Timing for submitting performance values
Cutover for Passive Demand Resources

All ready to respond passive assets and on-peak and seasonal peak demand resources existing as of April 1, 2018 will be cutover to new systems with no change to identification numbers or mappings.

- Changes made after April 1 will not be migrated to the new CAMS except for MPV values.

Additionally, cutover data

<table>
<thead>
<tr>
<th>WILL include</th>
<th>Will NOT include</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historical MPV values</td>
<td>Historical service notes</td>
</tr>
<tr>
<td>Historical audit values</td>
<td>As many details as before</td>
</tr>
</tbody>
</table>
Standard Market Design (SMD) Applications

Access & Navigation
Single Sign-On (SSO) Requires a Digital Certificate

Digital certificate required to access SMD applications

• Issued to your company’s security administrator (SA) by ISO
• Your company’s SA assigns your access
  – Demand Response Asset Maintainer role can enroll assets in CAMS
  – EEM Maintainer role can upload to the EEM database
  – Lead Participant Maintainer role can request audits in ATT

SMD applications home page

• SSO page: https://smd.iso-ne.com/

If you don’t know who your company’s security administrator is, call ISO-NE Customer Support
Enroll a Passive Asset in CAMS
Registration Timing

New asset registrations
• Allow 7 business days for review

Once new asset is approved
• Effective as of the next day

Resource mapping changes
• Effective as of the first of a future month
Registration States

- Draft
- Pending
- Approved
- Rejected
- Retired
Change Request States

Created in CAMS for New Registrations and for Asset Updates

- Pending ISO Approval
- Pending Customer Action
- Approved
- Rejected
Generator Option: *Controllable*

If distributed generation or load management asset with a generator is both:

- Registered at the same facility as a demand response asset (DRA)

  *and*

- A controllable generator is indicated

Then 5-minute interval meter data for the controllable generator must be provided along with load data for the DRA
CAMS Demonstration
## Entering MPVs

**Update Monthly Performance Values**

Initial and Final monthly performance values entered for months prior to Jun 1, 2016 must be MWh values and Initial and Final monthly performance values entered for Jun 1, 2016 and later must be MW values.

**Asset ID: 34048**

<table>
<thead>
<tr>
<th>Month - Edit Year</th>
<th>Initial Value (MW/MWh)</th>
<th>Initial Status</th>
<th>Final Value (MW/MWh)</th>
<th>Final Status</th>
<th>Supporting Document</th>
</tr>
</thead>
<tbody>
<tr>
<td>08/01/2017</td>
<td>6.921</td>
<td>Complete Pass</td>
<td></td>
<td></td>
<td>EEM Database Screenshot for Asset 34048 August Performance_09042017_090032.docx</td>
</tr>
<tr>
<td>09/01/2017</td>
<td>6.921</td>
<td>Submit to ISO</td>
<td></td>
<td></td>
<td>EEM Database Screenshot for Asset 34048 September Performance_10032017_094403.docx</td>
</tr>
<tr>
<td>10/01/2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11/01/2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12/01/2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>01/01/2018</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>02/01/2018</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>03/01/2018</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Entering MPVs, Continued

Update Monthly Performance Values

Initial and Final monthly performance values entered for months prior to Jun 1, 2016 must be MWh values and Initial and Final monthly performance values entered for Jun 1, 2016 and later must be MW values.

Asset ID: 34048

<table>
<thead>
<tr>
<th>Month - Year</th>
<th>Initial Value (MW/MWh)</th>
<th>Initial Status</th>
<th>Final Value (MW/MWh)</th>
<th>Final Status</th>
<th>Supporting Document</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug-17</td>
<td>6.921</td>
<td>Complete Pass</td>
<td></td>
<td></td>
<td>EEM Database Screenshot for Asset 34048 August Performance_09042017_090032.docx</td>
</tr>
<tr>
<td>Sep-17</td>
<td>6.921</td>
<td>Submit to ISO</td>
<td></td>
<td></td>
<td>EEM Database Screenshot for Asset 34048 September Performance_10032017_094403.docx</td>
</tr>
<tr>
<td>Oct-17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nov-17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dec-17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan-18</td>
<td></td>
<td></td>
<td></td>
<td>Submit to ISO</td>
<td></td>
</tr>
<tr>
<td>Feb-18</td>
<td></td>
<td></td>
<td></td>
<td>Submit to ISO</td>
<td></td>
</tr>
<tr>
<td>Mar-18</td>
<td></td>
<td>Submit to ISO</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Submit
Questions?
ATT Tasks
Audit Requirements

A **Summer** and **Winter** passive DR audit must be performed for each capacity commitment period in which the resource has a capacity supply obligation (CSO)

If a seasonal audit has not be requested by August 1 or January 1, an audit will be automatically scheduled for those dates
Important Notes About Audits

• May only be requested for an on-peak or seasonal peak demand resource (not assets)
• Approved audit value is valid until end of the next like-season audit period, or next like-season audit
• Must be requested for a business day
• May be requested no more than 30 days in advance

Please note:

• Audits will not be conducted in the month of May, 2018
  – Audit requests made in April, 2018 will be forced to select a June audit date
ATT Audit Process Flow

Submit

Pending ➔ Scheduled ➔ Initial Review In-Progress ➔ Initial Review Complete ➔ Final Review In-Progress ➔ Complete

1.5 business days following last day of the audit month

When data resubmission deadline closes

May Cancel while in ‘Pending’ or ‘Scheduled’ status
(so long as seasonal audit requirement has been met)

Once each asset is either Approved or Deferred

Once each asset is either Approved or Failed
ATT Demonstration
Data Reporting Requirements
Data Requirements

ISO uses the data you submit to:

• Establish seasonal passive DR audit values
• Calculate DR values during scarcity condition in PFP
Data Submissions

Data submissions utilized in performance calculations include

• Energy efficiency
  – MPV values reported in CAMS
  – Must match registered measure detail data in EEM

• Distributed generation & load management
  – Hourly meter data uploaded via the SMS User Interface
Performance Hours

On-peak resources
• Average hourly output or load reduction during on-peak hours

Seasonal peak resources
• Average hourly output or load reduction during seasonal peak hours (or on-peak hours in shoulder months)

<table>
<thead>
<tr>
<th>Demand Resource Type</th>
<th>Performance Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>On-Peak</strong></td>
<td>• H.E. 14:00-17:00 (summer)</td>
</tr>
<tr>
<td></td>
<td>• H.E. 18:00-19:00 (winter)</td>
</tr>
<tr>
<td></td>
<td>• Monday - Friday</td>
</tr>
<tr>
<td></td>
<td>• Non-holidays</td>
</tr>
<tr>
<td><strong>Seasonal Peak</strong></td>
<td>• ≥ 90% of the most recent 50/50 system peak load</td>
</tr>
<tr>
<td></td>
<td>• Monday - Friday</td>
</tr>
<tr>
<td></td>
<td>• Non-holidays</td>
</tr>
</tbody>
</table>
Data Submittal Timeline

Initial data submittal window runs from beginning of obligation month until 13:00 on the second business day following the obligation month.
Changes to EE Data Reporting

MPVs and EEM
Changes to Entering MPVs

Begin entering MPVs into the new CAMS UI as of May 1, 2018

Initial data submittals are due at 1300 on the second business day following the performance month

Continue to upload a screenshot from the EEM environment

• We will verify that this matches your entered value
• Make sure to enter the correct season’s value!

For more information see the Energy Efficiency Measure Database (EEM) User Guide, or view the recorded webinar in ISO-TEN.
Measure ID is the key when uploading data in EEM

<table>
<thead>
<tr>
<th>Registered before May 1, 2018</th>
<th>Registered after May 1, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure ID ≠ CAMS Asset ID</td>
<td>Measure ID = CAMS Asset ID</td>
</tr>
</tbody>
</table>

You can access pre-May 2018 measure IDs in CAMS
Pay for Performance
Passive Demand Capacity Resource Scoring

Pay for Performance

Performance will be measured for all assets mapped to on-peak and seasonal peak demand resources for a scarcity interval during on-peak or seasonal peak hours.

Neutral score will be given for a scarcity interval outside of on peak or seasonal peak hours.

- Neither incentive nor penalty will be assessed.
Implications

In order to receive a non-zero performance score immediately following a scarcity condition:

<table>
<thead>
<tr>
<th>EE Assets (MPV Values)</th>
<th>DG/LM Assets (SMS Hourly Meter Data)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Report initial MPVs at the <em>beginning</em> of the month</td>
<td>• Upload hourly interval data each day for the previous day in SMS</td>
</tr>
<tr>
<td>• Make any corrections in the data submission window following the month</td>
<td></td>
</tr>
</tbody>
</table>
Questions?
Customer Support Information

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)

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

* Recorded/monitored conversations