Aggregated Residential Passive Assets

Initial Registrations & Change Requests in CAMS

Olivia Love
What is an Aggregated Residential Passive Asset?

- A multitude of residential solar installations (i.e. residential rooftop solar) all located within the same load zone and have the same distribution company, that meets the definition of a passive demand capacity resource, specifically an on-peak demand resource.

- The individual residential solar installations are then aggregated to be registered as a singular asset in ISO systems.

**Passive Demand Capacity Resource:** A demand capacity resource principally designed to save electric energy use, which is in place at all times without requiring real-time direction from the ISO (iso-ne.com, Glossary & Acronyms)

**On-Peak Demand Resource:** A type of Demand Capacity Resource and means installed measures (e.g., products, equipment, systems, services, practices and/or strategies) on end-use customer facilities that reduce the total amount of electrical energy consumed during Demand Resource On-Peak Hours, while delivering a comparable or acceptable level of end-use service. Such measures include Energy Efficiency, Load Management, and Distributed Generation (ISO New England Inc. Transmission, Markets, and Services Tariff, Section 1, 2022, p. 70)
Reminder!

A Measurement & Verification Plan must have been submitted and approved during the qualification of the Capacity Resource that will be mapped to the asset. Please verify that this was completed prior to registering the asset.

Measurement & Verification Manual

Please reach out to ISO Participant Support (askiso@iso-ne.com) for additional questions regarding the Measurement & Verification Plan.
INITIAL REGISTRATION

Getting Started
What You Will Need

**Necessary Documents**

- ✓ A representative utility bill
- ✓ *Sample contract
- ✓ Completed Aggregated Residential Passive Asset Template
- ✓ Explanations of specific value calculations
- ✓ Measurement & Verification Plan
- ✓ Other supporting documentation

*Only necessary if this is the first aggregated residential passive asset being registered by the Participant*
Representative Utility Bill

- The bill should be located in the same load zone and have the same distribution company that matches the residential installations comprising the asset.

- This same utility bill will be used for each additional asset registered by the Participant in the same load zone and with the same distribution company that make up one aggregation series.
  - This allows ISO to identify the assets as being linked to one another in CAMS.

Aggregation Series: several assets that each contain installations within the same load zone and distribution company, separated by six month groupings.
Sample Contract

• Only necessary if this is the first aggregated residential passive asset enrollment for a Participant

• The sample contract can be a blank version with no customer information provided
Aggregated Residential Passive Asset Template

- A blank copy of the Aggregated Residential Passive Asset Template can be found on the ISO-NE website
Calculation Explanations

• An explanation of how the **Maximum Interruptible Capacity (MIC)**, **Maximum Generation**, **Maximum Load**, and **Maximum Net Supply** are calculated will need to be uploaded to the asset’s service notes.

Tip: these explanations can be generic (not inclusive of specific numbers), and therefore can be applied to other registrations of this type that use the same calculations. Put these explanations on a PDF or Word file to make it an easier Service Notes upload for future registrations.
Measurement & Verification Plan

• The Measurement and Verification Plan shall be submitted for an On Peak Demand Resource or Seasonal Peak Demand Resource as part of the qualification process for the Forward Capacity Auction pursuant to the requirements of Section III.13.1.4.3 of Market Rule 1 and the ISO New England Manuals. (ISO New England Inc. Transmission, Markets, and Services Tariff, Section 1, 2022, p. 58-59)

• If your M&V document is not readily accessible, you may provide an explanation of how the meter data will be collected for this aggregation as a whole and submitted for every hour of every month, via the asset’s service notes.
Supporting Documentation

• Any other supporting documentation should be uploaded that will be helpful for ISO’s review of the registration (i.e. a document that was used when calculating certain values associated with the asset)
INITIAL REGISTRATION

The Aggregated Residential Passive Asset Template
Reminder!

Before registering the asset in CAMS, please make sure to download a blank version of the Aggregated Residential Passive Asset Template.
Definitions

**Distribution Company Name**: the utility company for the service territory that all of the installations are located within

**Load Zone**: the load zone in which all the listed installation addresses are located within

**Asset Number in Aggregation Series**: a two digit sequential number assigned to each asset that makes up an aggregation series. The number represents a new set of installations within a six month period also located within the same load zone and distribution company

**Data As Of Date**: the date in which the installation data was finalized and submitted to ISO
## Definitions Continued

### General Facility Information

<table>
<thead>
<tr>
<th>Name (Unit)</th>
<th>Address</th>
<th>City</th>
<th>State</th>
<th>Zip Code</th>
<th>Utility Account</th>
<th>MIC (Max Interruptible Capacity)</th>
<th>Nameplate Capability (MW)</th>
<th>Commercial Operation Date</th>
</tr>
</thead>
</table>

1. **Name**: the identifier of the installation assigned and used by the Lead Participant or Utility. If this data is not available, you may leave this field blank.

2. **Address, City, State, Zip Code**: the street number, street name, city, state, and zip code where the installation is located.

3. **Utility Account**: the unique retail account ID of the installation.

4. **MIC**: an estimate of the maximum demand reduction and Net Supply that a Demand Response Asset can deliver, as measured at the Retail Delivery Point.

5. **Nameplate Capability**: the rating of the generator installation as a measure of its ability to produce electricity.

6. **Commercial Operation Date**: the In-Service date of the installation as indicated on the Permission to Operate Letter.
Populating the Aggregated Residential Passive Asset Template

• Installations listed on the Aggregated Residential Passive Asset spreadsheet should:
  ✓ Be solar residential installations only
  ✓ Be in groupings of six (6) month periods based off the installation’s commercial operation dates
  ✓ Be located within the same load zone
  ✓ Have the same distribution company
  ✓ Have a **unique** utility retail account ID
    ▪ The retail account ID should not be a duplicate of any other installations contained on the spreadsheet, or of installations contained on spreadsheets used in previous registrations
INITIAL REGISTRATION

Customer Asset Management System (CAMS) Registration
Reminder!

Before registering the asset in CAMS, please have the following documents available for your use:

**Necessary Documents**

- ✓ A representative utility bill
- ✓ *Sample contract
- ✓ Completed Aggregated Residential Passive Asset Template
- ✓ Explanations of specific value calculations
- ✓ Measurement & Verification Plan
- ✓ Other supporting documentation

*Only necessary if this is the first aggregated residential passive asset being registered by the Participant*
Accessing CAMS

- CAMS can be accessed on the SMD Application Home Page
CAMS Enrollment

• To start the enrollment process of a new Passive Asset, go to Assets → Demand Asset → + Enroll Passive
CAMS Enrollment: Asset Details

Enroll Passive Asset - Enter Asset Details

Asset Details

Requested Operational Date: 09/01/2022
Facilities: Single
Asset Name: Sunny Days Agg SEMA 01
Asset Type: On-Peak Demand Resource
Lead Participant: ISO New England Inc (SOEDS-1)
M.I.C.: 10
Reduction Method: Distributed Generation
Meter Installed and Operational: Yes
Meter Reader: ISO New England Inc
Has Generation: Yes

Next

Cancel
CAMS Enrollment: Asset Details

1. Number of Facilities: should always be “Single”

2. Asset Name: should follow the format of “(Asset Name) nn” where nn is a two digit sequential number beginning with 01 which advances for each asset of this type the participant registers
   • If registering aggregations across multiple load zones, the number sequence should start from 01 when the load zone changes (e.g. NEMA 01 NEMA 02 SEMA 01 SEMA 02)

3. Asset Type: should be “On-Peak Demand Resource”

4. MIC: this value should match the explanation provided for calculating the value.

5. Reduction Method: this value should be “Distributed Generation”

6. Meter Installed and Operational: this value should be “Yes”
CAMS Enrollment: Distribution Company Details

Distribution Company State: must match supplied utility bill

Distribution Company (ID): must match supplied utility bill

Retail Account ID: must follow the format of “(Retail Account ID on supplied utility bill) + nn” where nn is the same two digit suffix from the Asset Name
CAMS Enrollment: Facility Address

The address entered must match the supplied utility bill exactly and should represent an address in the correct Load Zone.

<table>
<thead>
<tr>
<th>Facility Address</th>
<th>Facility Name*</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>52783</td>
</tr>
<tr>
<td>Facility Name*</td>
<td>Sunny Days Agg SEMA 01</td>
</tr>
<tr>
<td>Address Line 1</td>
<td>Address Line 2</td>
</tr>
<tr>
<td>123 Sunshine Blvd</td>
<td>Address Line 2</td>
</tr>
<tr>
<td>City*</td>
<td>State*</td>
</tr>
<tr>
<td>Quincy</td>
<td>MA</td>
</tr>
<tr>
<td></td>
<td>02169</td>
</tr>
</tbody>
</table>
CAMS Enrollment: Confirm Location Details

Keep the “Use this” box checked off

Keep the “Suspect Load Zone” field as “No”
CAMS Enrollment: Single Facility Details

Enter Single Facility Details

Asset Details
- CR ID: 0057
- Asset ID: 73329
- Requested Operational Date: 09/01/2022
- #Facilities: Single

Asset Name: Sunny Days Co. SEMA 01
Asset Type: On-Peak Demand Resource
Lead Participant: ISO New England Inc (50051)
M.I.C.: 13
Reduction Method: Distributed Generation
Meter Installed and Operational: Yes
Has Generation: Yes

Facility Details
- Synchronize to Grid: Yes
- Max Net Supply: 15
- Max Load: 17

Facility Contact (600077985)
- First Name: Ray
- Last Name: Shine
- EMail: Rayofsunshine@iso-ne.com
- Work Phone: 555-555-5555
- Extension: 123
CAMS Enrollment: Single Facility Details

1. Synchronize to Grid: should always be “Yes”

2. Max Net Supply: this value should match the explanation provided for calculating the value.

3. Max Load: this value should match the explanation provided for calculating the value.

4. Facility Contact: the contact information of a member of the Lead Participant should be used
CAMS Enrollment: Generator Details

### Enter Generator Details

<table>
<thead>
<tr>
<th>Asset Details</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CR ID*</td>
<td>9657</td>
</tr>
<tr>
<td>Asset ID*</td>
<td>77329</td>
</tr>
<tr>
<td>Requested Operational Date*</td>
<td>09/01/2022</td>
</tr>
<tr>
<td>#Facilities*</td>
<td>Single</td>
</tr>
<tr>
<td>Asset Name*</td>
<td>Sunny Days Agg SEMA 01</td>
</tr>
<tr>
<td>Asset Type*</td>
<td>On-Peak Demand Resource</td>
</tr>
<tr>
<td>Lead Participant*</td>
<td>ISO New England Inc (50051)</td>
</tr>
<tr>
<td>MJ.C.*</td>
<td>13</td>
</tr>
<tr>
<td>Reduction Method*</td>
<td>Distributed Generation</td>
</tr>
<tr>
<td>Meter Installed and Operational*</td>
<td>Yes</td>
</tr>
<tr>
<td>Meter Reader*</td>
<td>ISO New England Inc</td>
</tr>
<tr>
<td>Has Generation*</td>
<td>Yes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Generator Details</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Generator Name*</td>
<td>Sunny Days Agg SEMA</td>
</tr>
<tr>
<td>In Service Date*</td>
<td>11/30/2019</td>
</tr>
<tr>
<td>Max Generation*</td>
<td>16 MW</td>
</tr>
<tr>
<td>Generator Type*</td>
<td>Photovoltaic</td>
</tr>
<tr>
<td>Fuel Type*</td>
<td>Solar</td>
</tr>
<tr>
<td>Controllable*</td>
<td>No</td>
</tr>
</tbody>
</table>
CAMS Enrollment: Single Facility Details

1. Generator Name: should match the Asset’s name

2. In Service Date: this date should be the earliest Commercial Operation Date on the Aggregated Residential Passive Asset file
   • This date must fall after the New Capacity Qualification Date of the Demand Capacity Resource, as specified in MR-1, III.13.1.10

3. Max Generation: this value should match the explanation provided for calculating the value

4. Generator Type: should always be “Photovoltaic”

5. Fuel Type: should always be “Solar”

5. Controllable: should always be “No”
CAMS Enrollment: Generator Details

The selected Capacity Resource (ID) must have qualified for: 1) the Distributed Generation measure type, and 2) a Capacity Commitment Period in which the residential installation commercial dates fall after the New Capacity Qualification Date, as specified in **MR-1, III.13.1.10**
CAMS Enrollment: Submitting the Asset for Approval

• After reviewing the data entered for the asset registration, submit the asset to ISO for approval.
Click the “Create New” button and follow the instructions to upload the following documents as attachments.

- A representative utility bill
- *Sample contract
- Completed Aggregated Residential Passive Asset Template
- Explanations of specific value calculations
- Measurement & Verification Plan
- Other supporting documentation

*Only necessary if this is the first aggregated residential passive asset being registered by the Participant
UPDATE EXISTING REGISTRATION

Customer Asset Management System (CAMS) Change Requests
Applicable Change Requests Covered in this Presentation

- The following change requests have unique instructions for Aggregated Residential Passive Assets:
  - Maximum Interruptible Capacity (MIC)
  - Maximum Load
  - Maximum Net Supply
  - Maximum Generation
  - Demand Capacity Resource Mapping

For guidance on making update(s) to the asset in CAMS, please refer to the CAMS User Guide for Demand Asset and Demand Resource Maintenance.
UPDATE EXISTING REGISTRATION

Maximum Interruptible Capacity, Maximum Load, Maximum Net Supply, Maximum Generation
What You Will Need

### Necessary Documents

- ✔ Revised Aggregated Residential Passive Asset Template
- ✔ Explanations of specific value calculations
- ✔ Other supporting documentation
Revised Aggregated Residential Passive Asset Template

• Via the asset’s CAMS Service Notes, obtain the previous version of the populated template from when the asset was initially registered

• Remove installations listed on the Aggregated Residential Passive Asset spreadsheet:
  ✓ Delete any installations from the spreadsheet that no longer apply to the registration
  ✓ Update the “Data As Of Date” on the template
Calculation Explanations

• An explanation of how the Maximum Interruptible Capacity (MIC), Maximum Generation, Maximum Load, and Maximum Net Supply are calculated will need to be uploaded to the asset’s service notes
Supporting Documentation

• Any other supporting documentation should be uploaded that will be helpful for ISO’s review of the registration (i.e. a document that was used when calculating certain values associated with the asset)
CAMS Service Notes

After the change request(s) is submitted to ISO for review and approval, click the “Create New” button and follow the instructions to upload the following documents as attachments.

- Revised Aggregated Residential Passive Asset Template
- Explanations of specific value calculations
- Other supporting documentation
UPDATE EXISTING REGISTRATION

Demand Capacity Resource
What You Will Need

- For updates to the Demand Capacity Resource, include an explanation for the Resource re-mapping in the asset’s CAMS Service Notes
Questions?

• Please reach out to ISO Participant Support if you have any questions on the content of this presentation

• Email: AskISO@iso-ne.com

• Call: (413) 540-4220