Load Management Registration Education Session

DR Registration Impacts
RPM Timeline
Registration Time Window
RPM Model and Existing MW Performance
Penalties
Add Backs

June 23, 2016
DRS
• Nominated Capacity amount from retail customers
• RPM credit amount (planned vs existing – pre-registration process)
• Dispatch – who needs to respond and when.
• RPM penalties
  – Daily deficiency
  – Event
  – Test (and retest provisions)
• Energy Settlements
• Expected Load Reductions – Expected RT load reductions to make dispatch decisions
RPM Timeline

- **Base Residual Auction**
  - 3 Years

- **Residual Auction**
  - Second Incremental Auction
  - 3 months
  - June
  - May

- **First Incremental Auction**
  - 20 months
  - 10 months
  - July

- **Second Incremental Auction**
  - 3 months
  - June
  - May

- **Third Incremental Auction**
  - Load Management Registrations
  - EDC PLC calculation
  - Jan.
  - Feb.
  - Conditional Incremental Auction (Effective 12/13 DY)

- **Ongoing Bilateral Market**
• Registration window for upcoming DY open from January thru mid-May
  – EDCs have determined Peak Load Contribution values for upcoming DY

• CSP enters location information into eLRS
  – Includes details about the site, examples:
    • Name and address
    • EDC
    • PLC
  – Includes types of load reduction techniques, examples:
    • HVAC
    • Lighting
    • Backup Generator

• CSP submits the registration (one or more locations) for EDC/PJM review
  – CSP links registration to RPM Resource
• EDC reviews:
  – Account number
  – Peak Load Contribution (PLC)
  – Loss Factor
  – Interval meter (PJM reviews if not EDC meter)
  – Pricing Point
  – RERRA

• EDC review “season” for LM registrations ends on May 31
• RPM Team will model DR resources in eRPM by request
  – Will create one resource per:
    • Zone/LDA
    • Product Type

• After DR Resource is modeled, CSP is responsible for completing the DR Setup in eRPM that links their Existing Pre-registration MW and Planned MW to specific DR resources

• The following link has further instruction on the DR Setup process in eRPM
  
Demand Resources in RPM may be classified as either Planned or Existing

<table>
<thead>
<tr>
<th>Existing</th>
<th>Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Currently have capability to provide reduction in demand and will provide load reduction capability for DY of RPM Auction</td>
<td>I. Do not currently have capability to provide reduction in demand, but is scheduled to be capable of providing such reduction on or before start of DY</td>
</tr>
<tr>
<td>II. Existing MWs based on pre-registrations in eRPM</td>
<td>II. Planned MWs based on DR Sell Offer Plan submittal</td>
</tr>
<tr>
<td>III. No Credit Requirement</td>
<td>III. Credit Requirement is Pre-Clearing BRA Credit Rate * Number of Planned MWs</td>
</tr>
</tbody>
</table>
• Currently have capability to provide reduction in demand and will provide load reduction capability for DY of RPM Auction

• No credit requirement like Planned resources have

• PJM reviews LM registrations for purposes of determining Existing MW quantities for RPM auctions:
  – Review in JAN for 3IA of the upcoming DY
  – Review in APR for BRA for DY three years out
  – Review in JUN for 2IA for the next DY
Pre-registration of a site is required to enable submission of an “Existing” Demand Resource in an RPM auction

- Ensure sites will be available during the DY
- Properly determine credit requirements
- Only currently registered sites can be considered “existing”
How to Pre-Register: Two Step Process

- Pre-Register for 2018/2019 BRA
- Register (PJM will use higher of 15/16 or 14/15) and Select (for 15/16)
  - CSP registers sites as Emergency DR via eLRS:
    - PJM will use the values on the newer of 15/16 or 14/15 registration
      - 15/16 registrations must be in Confirmed status by April 5, 2015
        » Note: submit by 3/22/15 to allow for 10 business day review
      - PJM will supply CSPs with a list of their Confirmed registrations (in eRPM) by COB April 6, 2015
  - CSP (via eRPM) selects those sites that they reasonably believe they will have under contract and will reduce load in 2018/2019 DY. The selected sites form the basis of their Existing Demand Resources to offer into the 2018/2019 BRA
    - Selections must be completed in eRPM by COB April 15, 2015

DR Registration must be in Confirmed status by April 5, 2015
Performance is measured in one of two ways:

- Performance during a mandatory event
  - Reductions are calculated for each registration dispatched for an event
  - Individual reductions are summed to arrive at the total reduction
  - The total reduction is compared to the commitment made in RPM
  - No test is required for a registration if it is part of a mandatory event

- Performance in a Test event
  - Test events are designed to simulate real events
    - Simultaneous reductions by all registrations in the product/zone group
  - Individual reductions are summed to arrive at the total reduction
  - The total reduction is compared to the commitment made in RPM
There are two potential penalties types:

- **Deficiency Penalty**
  - This is a daily penalty charged when registered MW quantity is less than committed MW quantity.
  - The deficient MW quantity is reduced from the commitment for purposes of any performance penalty (below) to avoid double penalty.
  - Penalty starts on June 1.

- **Performance Penalty**
  - This is a penalty charged when reduction MW during a mandatory event or test is less than the committed MW.
• Add backs are MW reduction values calculated using the compliance reduction formulas

• PJM provides the values calculated for 5 CPs to EDCs for their use in PLC determination processes

• The values are calculated for event, test and economic reductions performed during the months of JUN - SEP by locations that are part of LM registrations

• Calculation process occurs in mid to late October

• Values posted in November
Add Back Calculation

• Load Drop used to determine capacity compliance; also determines add back

• Guaranteed Load Drop or Economic Load Reduction (where applicable):
  – Minimum of \( (\text{comparison load} - \text{Load}) \times LF, \text{PLC} - (\text{Load} \times LF) \) 

• Firm Service Level:
  – \( \text{PLC} - (\text{Load} \times LF) \)

• Small Generator (customer PLC < 0.5MW) where load interval metering is not installed
  – Generation output
• Emergency Event
  – CSP submits customer specific compliance data up to 45 days after start of month after the event was called

• Economic Event
  – CSP submits settlement data up to 60 days after the event

• PJM calculates add backs and uses for Forecast

• PJM posts customer specific add backs for 5 CP in eLRS for CSP, EDC and LSE

• EDC downloads add backs for customer specific PLC determination which is due by 1/1