System Operations Report

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MC Webinar
September 14, 2020
Daily Peak Forecast Error (August)

- Error at Peak Hour
- Weekend / Holiday

- Over-forecasting
- Under-forecasting
PJM’s BAAL performance has exceeded the goal of 99% for each month in 2020.
• Three spinning events in the month of July
• Seven reserve sharing events with the Northeast Power Coordinating Council (NPCC)
• The following Emergency Procedures occurred in July:
  – 31 Post-Contingency Local Load Relief Warnings (PCLLRW)
  – 15 Hot Weather Alerts
- Zero spinning events in the month of August
- Five reserve sharing events with the Northeast Power Coordinating Council (NPCC)
- The following Emergency Procedures occurred in August:
  - 24 Post-Contingency Local Load Relief Warnings (PCLLRW)
  - 2 Hot Weather Alerts
The 13-month average forced outage rate is 3.96% or 7,811 MW. The 13-month average total outage rate is 14.12% or 27,824 MW.
Note: “Unplanned Outages” include tripped facilities. One tripping event may involve multiple facilities.
### Spin Response (July)

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
<th>Start Time</th>
<th>End Time</th>
<th>Duration</th>
<th>Region</th>
<th>Tier 1 Estimate (MW)</th>
<th>Tier 1 Response (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>07/06/20</td>
<td>17:22</td>
<td>17:32</td>
<td>00:10</td>
<td>RTO</td>
<td>1464.0</td>
<td>526.1</td>
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<tr>
<td>2</td>
<td>07/23/20</td>
<td>21:03</td>
<td>21:12</td>
<td>00:09</td>
<td>RTO</td>
<td>1562.7</td>
<td>852.8</td>
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<tr>
<td>3</td>
<td>07/25/20</td>
<td>12:39</td>
<td>12:50</td>
<td>00:11</td>
<td>MAD</td>
<td>868.4</td>
<td>421.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
<th>Start Time</th>
<th>End Time</th>
<th>Duration</th>
<th>Region</th>
<th>Tier 2 Assigned (MW)</th>
<th>Tier 2 Response (MW)</th>
<th>Tier 2 Penalty (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>07/06/20</td>
<td>17:22</td>
<td>17:32</td>
<td>00:10</td>
<td>RTO</td>
<td>479.7</td>
<td>415.1</td>
<td>64.6</td>
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<tr>
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<td>21:12</td>
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<td>12:50</td>
<td>00:11</td>
<td>MAD</td>
<td>302.3</td>
<td>264.8</td>
<td>37.5</td>
</tr>
</tbody>
</table>

*Tier 2 Response is equal to Tier 2 Assigned for events less than ten minutes*
PJM experienced no spinning events during the month of August 2020.
Appendix
Goal Measurement: Balancing Authority ACE Limit (BAAL)

• The purpose of the new BAAL standard is to maintain interconnection frequency within a predefined frequency profile under all conditions (normal and abnormal), to prevent frequency-related instability, unplanned tripping of load or generation, or uncontrolled separation or cascading outages that adversely impact the reliability of the interconnection. NERC requires each balancing authority demonstrate real-time monitoring of ACE and interconnection frequency against associated limits and shall balance its resources and demands in real time so that its Reporting ACE does not exceed the BAAL \( (\text{BAAL}_{\text{LOW}} \text{ or } \text{BAAL}_{\text{HIGH}}) \) for a continuous time period greater than 30 minutes for each event.

• PJM directly measures the total number of BAAL excursions in minutes compared to the total number of minutes within a month. PJM has set a target value for this performance goal at 99% on a daily and monthly basis. In addition, current NERC rules limit the recovery period to no more than 30 minutes for a single event.
The 13-month average forced outage rate is 3.96% or 7,811 MW. The 13-month average total outage rate is 14.12% or 27,824 MW.
PCLLRW Count Vs. Peak Load – Daily Values For 13 Months