System Operations Report

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MC Webinar
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February 2023
Hourly Error: **1.53%**  Peak Error: **1.16%**
Daily Peak Forecast Error (February)

- Error at Peak Hour
- Weekend / Holiday

Over-forecasting
Under-forecasting
Actual real-time Demand Response load reductions were less than initial estimates, so unrestricted load (and therefore load forecast error) is also lower than originally reported.
PJM’s BAAL performance has exceeded the goal of 99% for each month in 2022 and 2023.
• 1 Spinning Event
• 4 Shared Reserve Events

• The following Emergency Procedures occurred:
  – 1 Cold Weather Alert
  – 1 Conservative Operations Alert
  – 3 Geomagnetic Disturbance Warnings
  – 2 Post Contingency Local Load Relief Warnings
There were no shortage cases approved for the month of February 2023
The 13-month average forced outage rate is 4.81% or 9,635 MW. The 13-month average total outage rate is 16.30% or 32,753 MW.
2021-2022 Planned Emergency, Unplanned, and Total Outages by Ticket

Note: “Unplanned Outages” include tripped facilities. One tripping event may involve multiple facilities.
PCLLRW Count Vs. Peak Load – Daily Values For 3 Months

- RTO Peak Load
- PCLLRW Count

MW (Thousands) vs. PCLLRW Count

- 12/01/22
- 01/01/23
- 02/01/23
*Response is equal to Assigned for events with duration less than ten minutes

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
<th>Start Time</th>
<th>End Time</th>
<th>Duration</th>
<th>Region</th>
<th>Assigned (MW)</th>
<th>Response (MW)</th>
<th>Penalty (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>02/02/23</td>
<td>06:06:08</td>
<td>06:14:10</td>
<td>00:08:02</td>
<td>RTO</td>
<td>1938.0</td>
<td>1938.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>
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System Operations Report

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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 (BAAL_{LOW} or BAAL_{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 4.81% or 9,635 MW. The 13-month average total outage rate is 16.30% or 32,753 MW.
PCLLRW Count Vs. Peak Load – Daily Values For 13 Months
PROTECT THE
POWER GRID
THINK BEFORE
YOU CLICK!

Be alert to
malicious
phishing emails.

Report suspicious email activity to PJM.
(610) 666-2244 / it_ops_ctr_shift@pjm.com