System Operations Report

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Average Load Forecast Error

February 2024
Hourly Error: 1.26%  Peak Error: 1.07%

[Graph showing error percentages for different months and years, with categories for All Hours, Peak Hours Only, Winter, Summer, 25-month Average.]
Daily Peak Forecast Error (February)

18:00 Day Ahead Forecast Error

-7%  -6%  -5%  -4%  -3%  -2%  -1%  0%  1%  2%  3%  4%  5%  6%  7%

-7%  -6%  -5%  -4%  -3%  -2%  -1%  0%  1%  2%  3%  4%  5%  6%  7%

Error at Peak Hour
Weekend / Holiday

Over-forecasting
Under-forecasting
PJM’s BAAL performance has exceeded the goal of 99% for each month in 2023 and 2024.
Operational Summary (February)

- 3 Shared Reserve events
- 1 Spin Event
- The following Emergency Procedures occurred:
  - 3 Post Contingency Local Load Relief Warnings (PCLLRWs)
• There have been no approved shortage cases for the month of February 2024
The 13-month average forced outage rate is 4.04% or 8,018 MW. The 13-month average total outage rate is 14.58% or 29,169 MW.
Note: “Unplanned Outages” include tripped facilities. One tripping event may involve multiple facilities.
PCLLRW Count Vs. Peak Load – Daily Values For 3 Months

MW (Thousands)

PCLLRW Count

RTO Peak Load

12/01/23
01/01/24
02/01/24
<table>
<thead>
<tr>
<th>Event</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>02/24/24</td>
</tr>
<tr>
<td>Start Time</td>
<td>15:48:08</td>
</tr>
<tr>
<td>End Time</td>
<td>16:00:27</td>
</tr>
<tr>
<td>Duration</td>
<td>00:12:19</td>
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<tr>
<td>Region</td>
<td>RTO</td>
</tr>
<tr>
<td>Resource Type</td>
<td>Gen</td>
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<tr>
<td>Assigned (MW)</td>
<td>2689</td>
</tr>
<tr>
<td>Estimated Expected Response of Assigned Resources (MW)</td>
<td>2689</td>
</tr>
<tr>
<td>Actual Response of Assigned Resources (MW)</td>
<td>964</td>
</tr>
<tr>
<td>Output Increase of Resources without Assignment (MW)</td>
<td>1777</td>
</tr>
<tr>
<td>Percent Response To Estimated Expected Response (%)</td>
<td>36%</td>
</tr>
<tr>
<td>Penalty (MW)</td>
<td>1724</td>
</tr>
</tbody>
</table>
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 4.04% or 8,018 MW. The 13-month average total outage rate is 14.58% or 29,169 MW.
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_cotr_shift@pjm.com