



Item 5.1: System Operations Update

Jeff Billo

Director, Operations Planning

Reliability and Markets Committee Meeting

ERCOT Public

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Highlights, Records and Notifications

- New May Peak Demand Records:

Previous Record (May 29, 2018)	67,265 MW
May 9, 2022	70,703 MW
May 17, 2022	70,805 MW
May 19, 2022	71,159 MW
May 31, 2022	71,688 MW

- A solar generation record of 9,370 MW was set on May 19 at 13:15.
- A wind penetration record of 69.15% was set on Apr. 10 at 01:43.
- A wind generation record of 27,044 MW was set on May 29 at 22:36.
- Issued 1 Advanced Action Notice (AAN) in April and 3 in May for possible future emergency conditions.
- Issued 5 Operating Condition Notices (OCNs) in May for extreme hot weather with forecasted temperatures above 94 degrees in the North Central and South Central weather zones.

Operating Days of Interest: May 9-11

- May 9-11 all rank among the top 10 days with the highest amount of real-time congestion rent over the last 10 years.
- Congestion on these days was primarily caused by high loads and generation outages in the Houston area and the transmission system limiting the amount of lower-cost power that could be imported into the area.

Day	Congestion Rent
May 9	\$96.8 M
May 10	\$65.5 M
May 11	\$59.8 M

Operating Days of Interest: May 13

- 6-12 degrees hotter than normal in the major cities.
- Advance Action Notice (AAN) issued in advance with subsequent Outage Schedule Adjustment (OSA) for one generator due to possible reserve capacity deficiency.
- Total of ~1,450 MW of generation committed for the day through Reliability Unit Commitment (RUC).
- 7 thermal generation forced outages during the day between 11:30 and 16:00 - Total capacity lost ~ 3,100 MW.
- Wind generation was over-forecasted by ~1,100-3,500 MW for 16:00-20:00 compared to 06:00 forecast.
- ERCOT deployed Non-Spin Reserve Service (Offline) from ~14:45 until ~20:00 .
 - Deployment of Non-Spin worked as designed and avoided need for Advisory or Emergency operations.

Operating Days of Interest: June 4

- Event initiated by 345 kV fault in the Odessa area at 12:59.
- Preliminary estimated loss of 2,519 MW of thermal and solar generation.
 - 1,666 MW lost from 14 solar generators.
 - 853 MW lost from 3 thermal generators.
- System frequency declined to 59.706 Hz and recovered in 1 minute 20 seconds.
- 1,227 MW of Responsive Reserve Service (RRS) deployed.
 - Including 1,116 MW of Load Resources.
- NERC Category 3 loss of generation event (> 2,000 MW).
 - ERCOT is coordinating investigation with NERC and TRE.
 - ERCOT has issued RFIs to all affected generators.
- Similar to “Odessa Disturbance” event which occurred May 9, 2021.
 - 9 out of 10 generating sites identified in the NERC Odessa Event report also experienced issues during the June 4 event.

Key Focus Areas

- Summer operations
- Large Flexible Load (LFL) issues
- NPRR1085, Ensuring Continuous Validity of Physical Responsive Capability (PRC) and Dispatch through Timely Changes to Resource Telemetry and Current Operating Plans (COPs)
- Addition of second solar forecast vendor (June 23)
- Gas Coordination