



Item 5: CEO Update

Pablo Vegas

ERCOT President and Chief Executive Officer

Board of Directors Meeting

ERCOT Public

April 18, 2023

Overview

- **Purpose**

This presentation recaps ERCOT's recent Operations activity and highlights strategic areas of focus

- **Voting Items / Requests**

No action is requested of the Board; for discussion only

- **Key Takeaways**

- Increasing frequency of Advanced Action Notices is another indication of the narrowing dispatchable generation reserve relative to demand growth.
- Ancillary services are a critical component in maintaining grid reliability, and ERCOT has the tools necessary in the CURRENT portfolio of services to accomplish this.
- Long-term resource adequacy is the primary ERCOT reliability concern and needs to be addressed with a market-wide solution that incentivizes or obligates new investment in dispatchable generation.

Recent Advanced Action Notices (AANs)

- Issued March 16 (3,071 MWs)
- Issued March 29 (7,808 MWs)
- Due to a possible future Emergency Condition of reserve capacity deficiency
- ERCOT may Delay/Withdraw Approved or Accepted Resource Outages
- ERCOT may seek additional MWs from an Outage Adjustment Evaluation (OAE) and then make the Outage Schedule Adjustment (OSA)

Key Takeaway: AANs are becoming commonplace during traditional “shoulder” months as dispatchable reserves continue to remain relatively static in relation to growing load.

Short-Term Operational Challenges

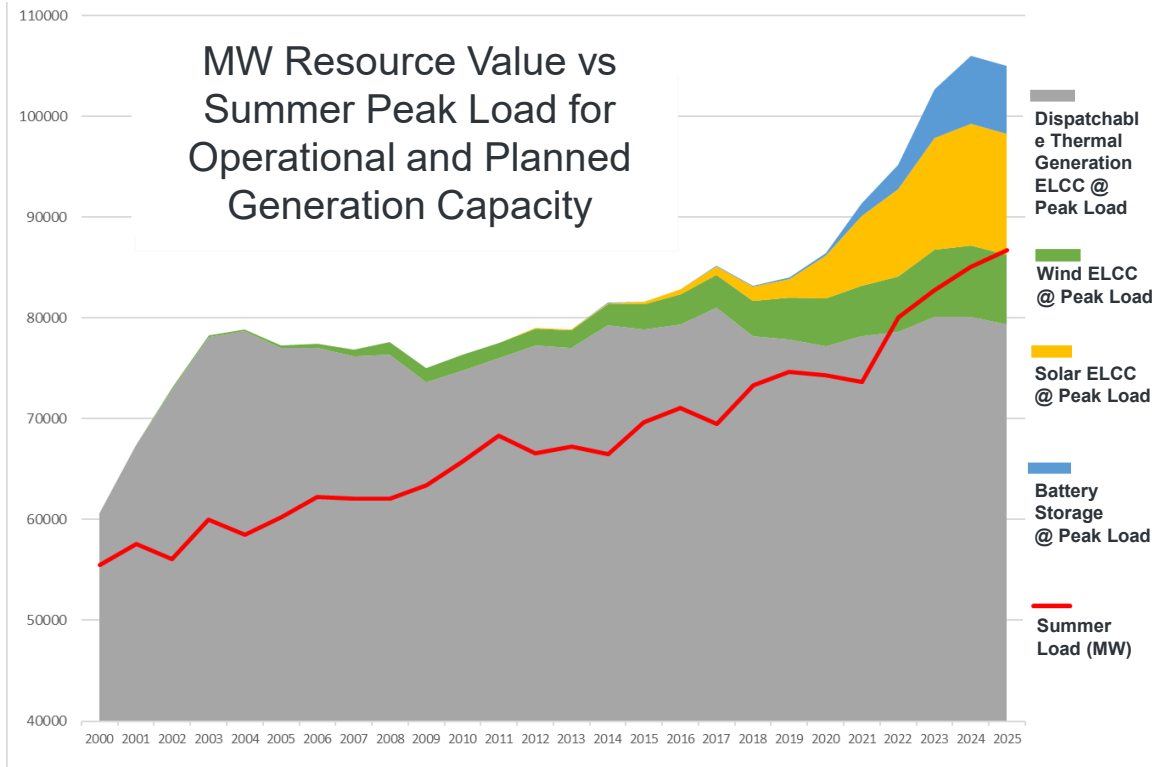
- Managed hourly/daily with specific, precise tools
- Load and generation are constantly changing, due to:
 - Daily load patterns
 - Instantaneous load variation
 - Changes in variable generation output
 - Generators tripping offline

Ancillary Service Products

- **Regulation Service (Reg)**
 - Reserved capacity deployed every 4 seconds to balance supply and demand and maintain frequency close to 60Hz between 5-minute SCED runs
- **Responsive Reserve Service (RRS)**
 - Reserved capacity procured to respond to low frequency events typically triggered by generating unit trips
- **ERCOT Contingency Reserve Service (ECRS) – deploys Summer 2023**
 - Capacity that can be started in 10 minutes to cover forecast errors or ramps and replace deployed reserves
- **Non-Spin Reserve Service**
 - Capacity that can be started in 30 minutes to cover forecast errors, forced outages or ramps, and replace deployed reserves until additional resources can be committed

Key Takeaway: ERCOT has adequate resources in the Ancillary Services portfolio to address the operational flexibility needs of the grid.

Illustration of Long-Term Resource Adequacy Issue (Summer)



Dispatchable Thermal Generation (2000-2008) more than 20,000 MW of net new dispatchable thermal generation added to the grid.

(2008-2022) only 1,500 MW of net new dispatchable thermal generation added.

- 20,925 MW retired
- 22,485 MW added

More than 48,000 MW of net new solar and wind added (2008-2022).

Total Thermal Fleet is 77,040 MW

- 41% is older than 30 years (31,863 MW) (1993)
- 27% is older than 40 years (21,148 MW) (1983)
- 12% is older than 50 years (9,586 MW) (1973)
- 2% is older than 60 years (1,737 MW) (1963)

Key Takeaway: ERCOT needs to implement a market-wide solution to structurally address the long-term trend of static dispatchable generation growth relative to rapidly growing demand. An Ancillary Service alone will not accomplish this.

Employee Recognition

Thank you to the following ERCOT employees for their work on these recent projects: ADER Pilot, QSA, and SharePoint/Intranet!

ADER PILOT PROJECT

Nathan Bigbee
Katherine Gross
Donald House
Steve Krein
Dave Maggio
Nitika Mago
Sai Moorthy
Mark Patterson
Kenneth Ragsdale
Pamela Shaw
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INTRANET/SHAREPOINT FINAL MIGRATION

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QUARTERLY STABILITY ANALYSIS (QSA) QUEUE

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