



Item 6: CEO Board Update – REVISED*

Pablo Vegas
President and Chief Executive Officer

Board of Directors meeting

ERCOT Public
February 27, 2024

*Slide 8 revised 2/26/24 to correct dashboard graphic

Overview

- **Purpose**

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

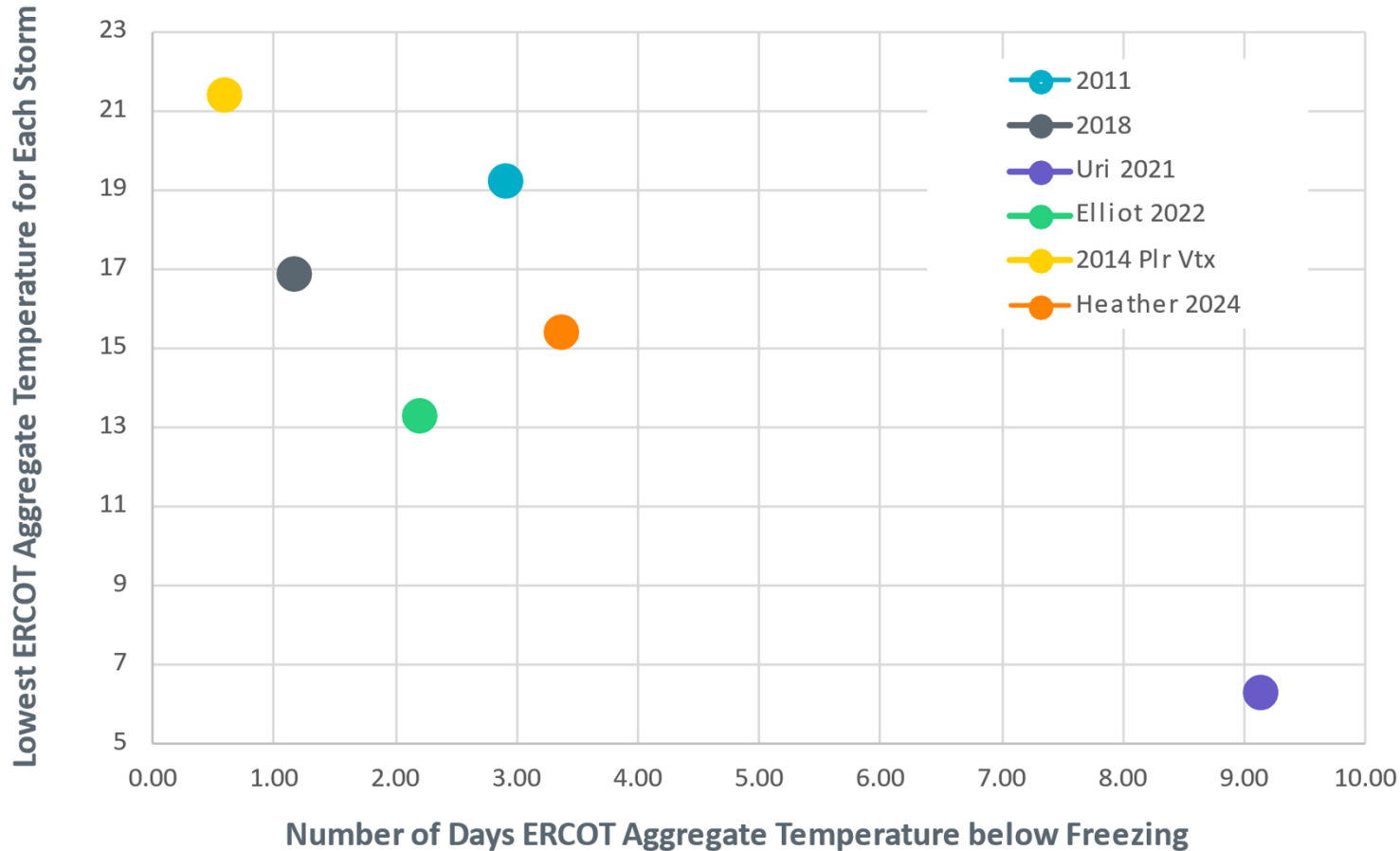
- **Voting Items / Requests**

No action is requested of the Board; for discussion only

- **Key Takeaways**

- The ERCOT grid performed well during Winter Storm Heather in January despite record demand and extended cold periods.
- ERCOT continues to focus on short- and long-term reliability planning, including developing a reliability plan for growth in the Permian Basin and working on new operating guide revisions related to the growing number of Inverter-Based Resources (IBRs) on the system.
- ERCOT added another new dashboard in continued efforts to provide awareness and transparency into the grid.

ERCOT Winter Storm Severity Comparison

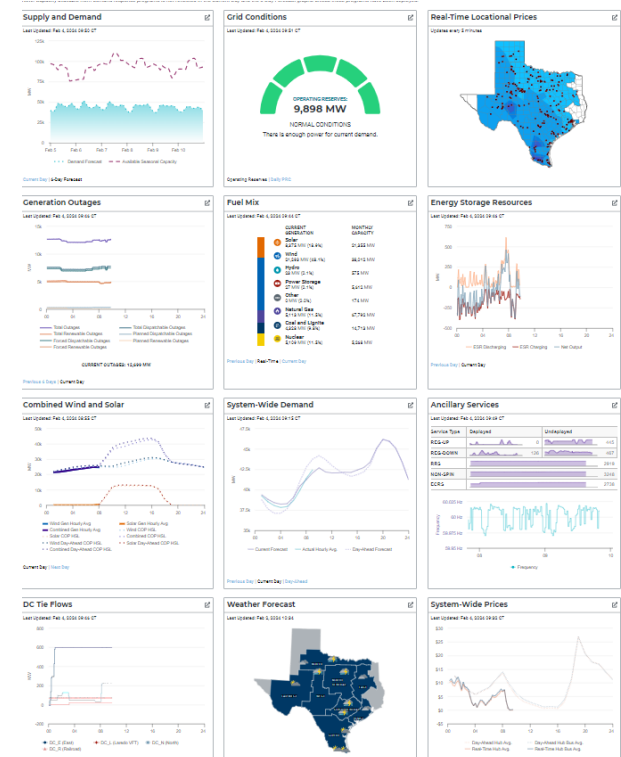


- New all-time winter peak demand record of 78,314 MW set in 7-8 a.m. hour Jan 16
- Passes 74,525 MW set Dec 23, 2022, during W.S. Elliott

Key Takeaways: Key factors contributing to reliable operations throughout W.S. Heather included continued generation resource availability, aided by effective winterization and record solar performance during the daytime, significant conservation appeal response, and effective storm preparation/coordination.

Communications During Winter Storm Heather

Dashboards (Jan 12-17)	Views
Grid & Markets Conditions	1.2 million
ERCOT.com Homepage	835,000
Real-time Locational Prices	639,000
Real-Time Conditions	466,000



Social Media analytics

- Impressions: 4.4 million
- Engagements: 293k
- New followers: 10k

TXANS (TX Advisory & Notification System)

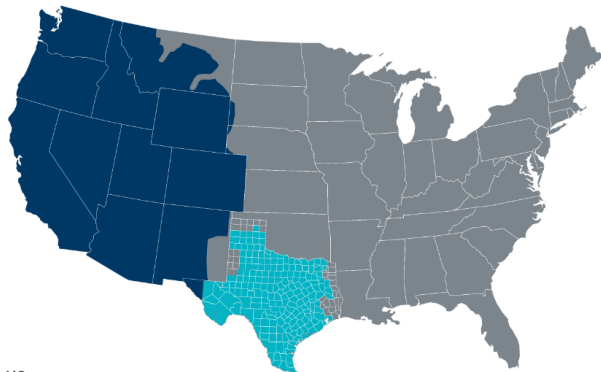
- Weather Watch
- 2 Conservation Appeals for early morning hours
- Gained more than 10k new subscribers



Further Interconnecting ERCOT to Neighboring Grids

Key Considerations

- Transmission Costs
- Economic Costs
- Reliability
- Market Implications



US

Interconnections

● Western Interconnection
Includes El Paso and Far West Texas

● ERCOT Interconnection

● Eastern Interconnection
Includes portions of East Texas and Panhandle region



Key Takeaway: Further interconnecting the ERCOT grid is a complex issue that will require extensive analysis, modeling, and input from policy makers and regulators.

Inverter-Based Resources (IBR)

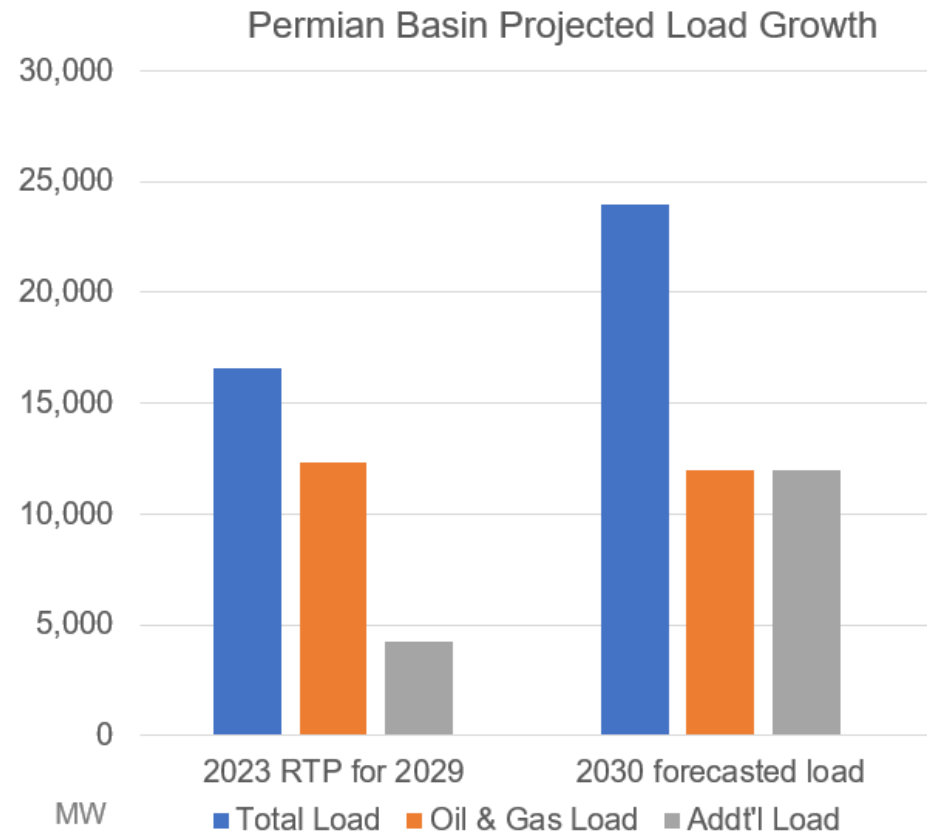
- NOGRR245, now before TAC, proposes changes to IBRs (existing and new) addressing current and future potential operational issues associated with IBRs' frequency and voltage “ride-through” capability.
- The proposed changes establish new ride-through performance requirements consistent with IEEE 2800-2022 standard for new IBRs connecting to the ERCOT system in future years.



Key Takeaway: ERCOT is leading the industry conversation regarding IBR standards and addressing this well ahead of the rest of the nation due to the incredible growth of renewables (solar and wind) and batteries on the system.

Permian Basin Reliability Plan Study Main Objectives

- Address extending transmission service to areas where mineral resources have been found
- Address increasing available capacity to meet forecasted load
- Provide available infrastructure to reduce interconnection times in areas without access to transmission service



Key Takeaway: In the first half of 2024, ERCOT will study the reliability needs stemming from the Permian Basin demand growth and begin to identify transmission projects to address those needs.

Grid Condition Levels Dashboard

Grid Conditions

Last Updated: Feb 12, 2024 16:58 CT



NORMAL CONDITIONS

There is enough power to meet the current demand.

Operating Reserves | [Daily PRC](#)

ERCOT Grid Condition Levels

Texas Advisory and Notification System (TXANS)

Energy Emergency Alert (EEA)

<p>Normal Conditions</p> <p>The grid is operating normally. Supply and demand are balanced.</p> <p>No action needed.</p> <p>Learn more</p>	<p>Weather Watch</p> <p>The grid is operating normally. Supply and demand are balanced, but reserves are dropping.</p> <p>No action needed.</p> <p>Learn more</p>	<p>Energy Emergency Level 1</p> <p>Reserves are below 2,500 MW and expected to remain below for 30 minutes. We have entered into emergency operations. No controlled outages.</p> <p>Conservation is critical.</p> <p>Learn more</p>
<p>Voluntary Conservation Notice</p> <p>Forecasted high demand and lower reserves.</p> <p>Reduce electric use, if safe to do so.</p> <p>Learn more</p>		<p>Energy Emergency Level 2</p> <p>Reserves are below 2,000 MW and expected to remain below for 30 minutes, or frequency has dropped below 59.91 Hz for 15 minutes. No controlled outages at this time, but they are possible.</p> <p>Conservation is very critical.</p> <p>Learn more</p>
<p>Conservation Appeal</p> <p>Demand is higher, reserves are lower with the potential to enter emergency operations.</p> <p>Conserve electric use.</p> <p>Learn more</p>		<p>Energy Emergency Level 3</p> <p>Reserves are below 1,500 MW and expected to remain below for 30 minutes, or frequency has dropped below 59.8 Hz for any period of time. Controlled outages are occurring, which impact all customer classes, including residential, commercial, and industrial.</p> <p>Conservation is very critical. Please continue to conserve electricity when you have power during these controlled outages.</p> <p>Learn more</p>

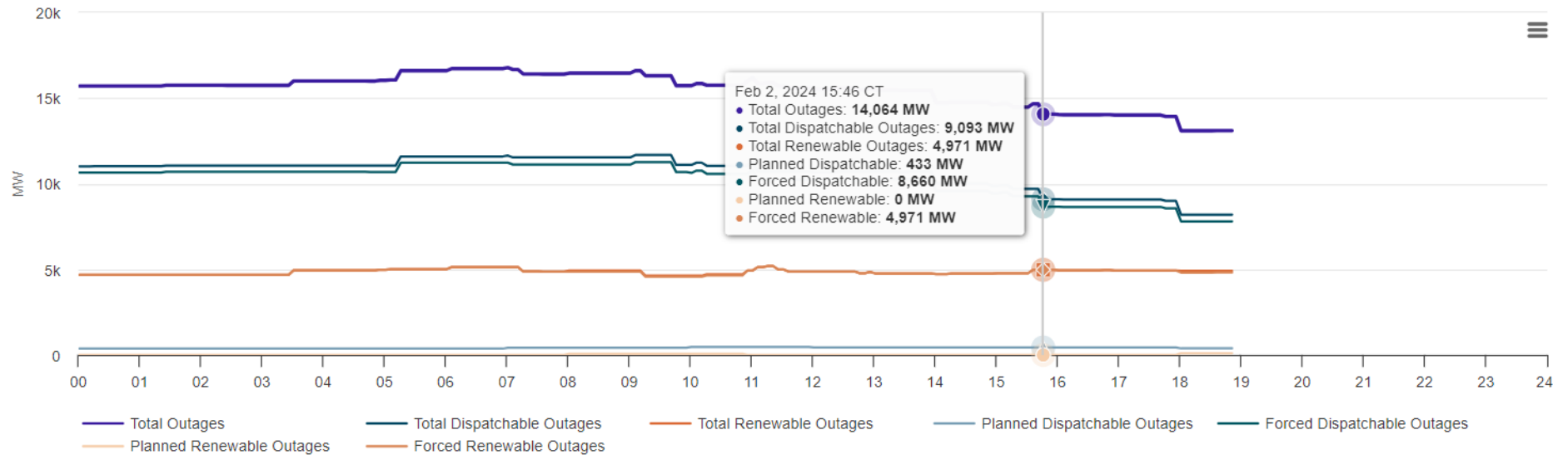
Key Takeaway: The Grid Condition Levels dashboard now has an expandable, printable, downloadable page replacing the old EEA Matrix.

Generation Outages Dashboard

Generation Outages

Generation Outages is a graphical representation of planned and forced generation outages within the ERCOT system.

Last Updated: Feb 2, 2024 18:51 CT



CURRENT OUTAGES: 13,101 MW

[Previous 6 Days](#) | [Current Day](#) | [Outages by Resource Type](#) ▾

Key Takeaway: ERCOT continues to provide access and transparency to grid operations for all stakeholders.



Pengwei Du Named IEEE Fellow

- ERCOT's Pengwei Du, Supervisor, Economic Analysis & Long-Term Planning Studies, was selected into the IEEE Fellow Class of 2024.
- Pengwei was acknowledged for his work in load resource integration and smart grid planning.
- IEEE is the world's largest technical professional organization dedicated to advancing technology, and their acclaimed Fellow program recognizes members with extraordinary accomplishments.



Winter Storm Heather

- ERCOT Employees who worked during the storm
- Public Utility Commission
- Railroad Commission of Texas
- Texas Department of Emergency Management
- Texas Energy Reliability Council

Design Excellence Award

- Facilities lead the project
- Legal
- Finance
- Procurement
- IT
- Internal Audit
- Urban Foundry

Thank you to Kenan Ögelman

Kenan has provided leadership and executive support on a variety of initiatives, including:

- ADER Pilot
- ECRS
- ERS Expansion
- Fast Frequency Response
- Firm Fuel Supply Service
- Loads in Non-Spin
- Lubbock integration into Retail Market
- Performance Credit Mechanism
- Real-Time Co-Optimization
- Scarcity pricing reforms
- Securitization credit and financing after Uri
- Other market reforms considered after Uri

