



Item 5: CEO Board Update – **REVISED***

Pablo Vegas
President and Chief Executive Officer

Board of Directors Meeting

ERCOT Public
April 23, 2024

*Slides 4, 6 & 9 revised 4/24/2024

Overview

- **Purpose**

This presentation highlights ERCOT's planning activities and strategic areas of focus

- **Voting Items / Requests**

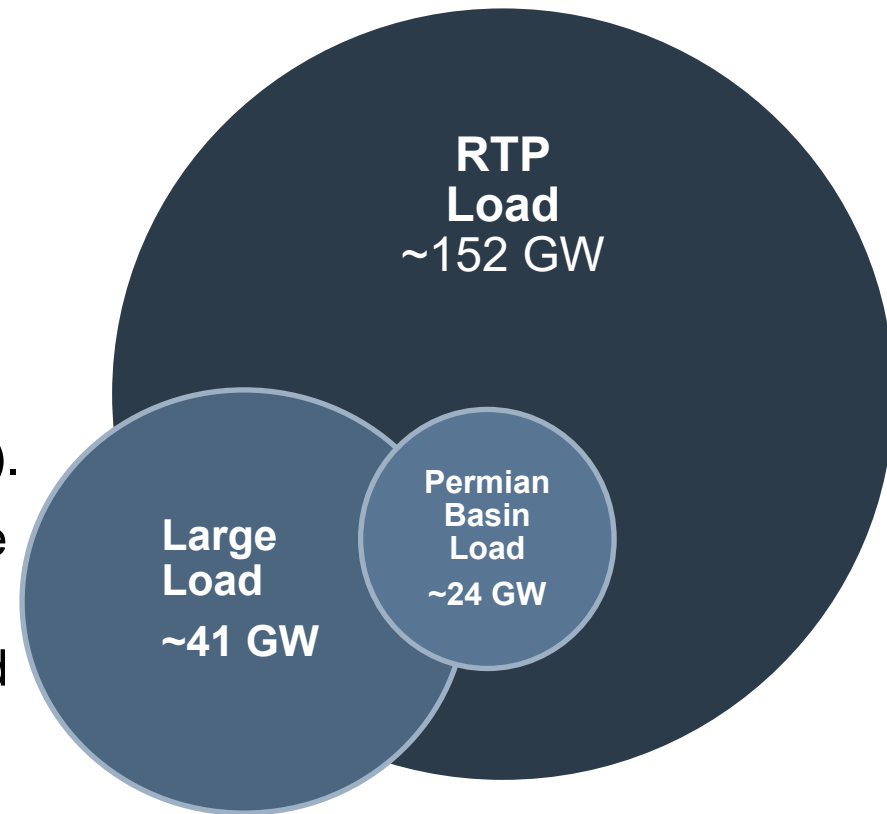
No action is requested of the Board; for discussion only

- **Key Takeaways**

- The ERCOT region is forecasted to experience tremendous electric demand growth in the next 5-7 years, which is driving the need for ERCOT to adapt and plan differently for the future.
- As a result, ERCOT is adapting and entering a new era of planning to address long-term challenges and highlight future opportunities.
- With this new era of planning and the tools from the last two Texas Legislative Sessions, ERCOT is in a better position today than it ever has been to meet today's and tomorrow's challenges.

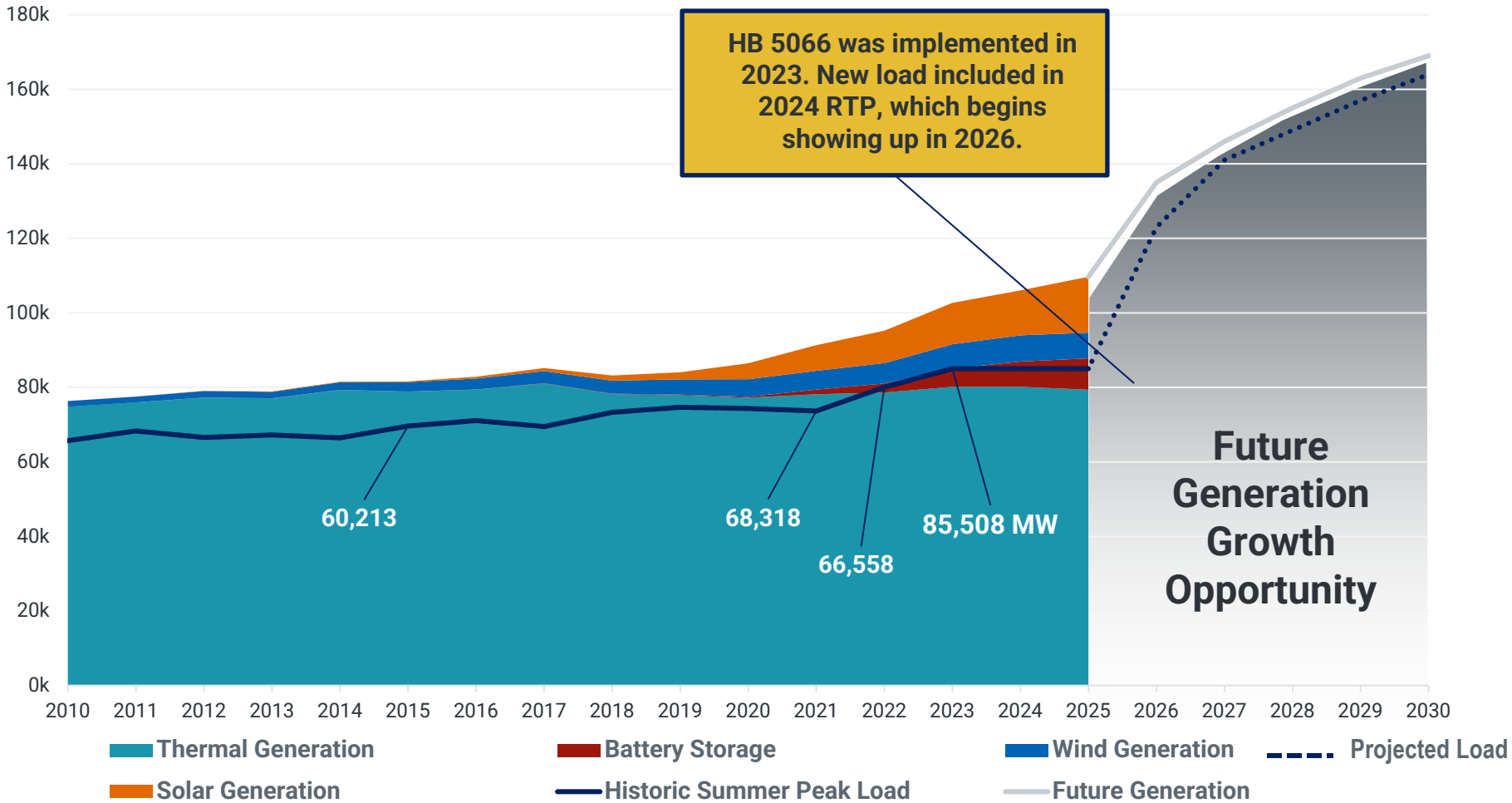
New View of Load Growth in the ERCOT System

- Previous Regional Transmission Plan (RTP) rules did not allow ERCOT to factor in unsigned load.
- House Bill (HB) 5066 (88th Legislative Session) required ERCOT to include prospective load identified by Transmission Service Providers (TSPs).
- This led to significant increases in large loads considered in studies (*i.e.*, crypto mining, hydrogen and hydrogen-related manufacturing, data centers, and electrification).



Key Takeaway: This new view shows unprecedented and rapid load growth (approximately 40 GW greater than last year's forecast), which is creating new challenges and opportunities for the ERCOT System.

Challenges and Opportunities Ahead



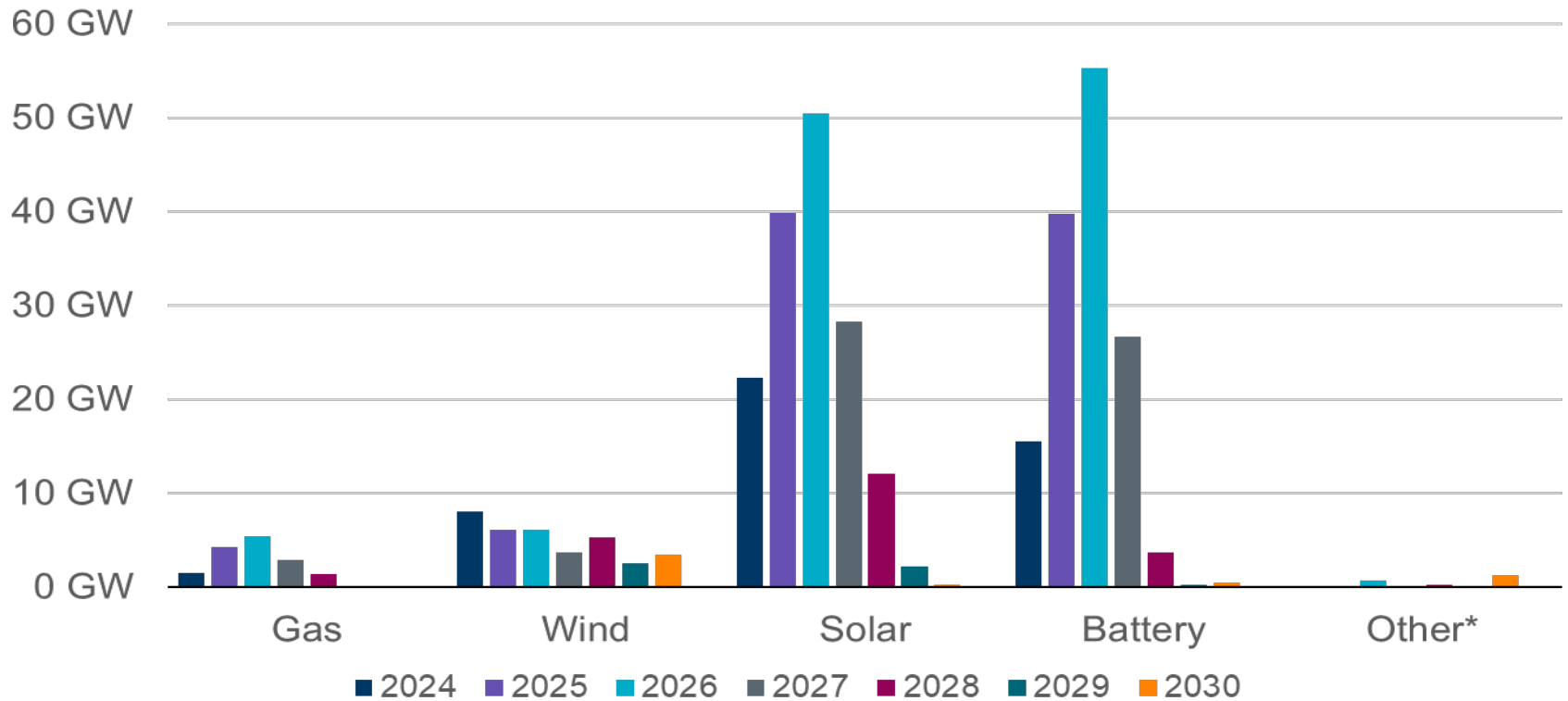
Key Takeaway: The new load forecast in ERCOT creates significant investment opportunities for balanced generation growth to serve.



Generation Interconnection Queue

1,775 active generation interconnection requests totaling 346 GW as of March 31, 2024
(Solar 155 GW, Wind 35 GW, Gas 15 GW, and Battery 141 GW)

(Excludes capacity associated with projects designated as Inactive per Planning Guide Section 5.7.6)



Key Takeaway: The current view of the Interconnection Queue will need to quickly evolve to meet a balanced supply mix to serve a new load forecast.



Transmission System Challenges & Complexities

- Demand is escalating as new large loads are added to the ERCOT System faster and in greater sizes than historical interconnections.
- The current generation mix is more diverse than previous portfolios, can be built faster, and is more geographically disbursed from load centers.
- While we're seeing changes in the speed of load growth and generation coming onto the Texas power grid, transmission still requires 3-5 years to be energized.

Load
(6-12 months)

Generation
(6-12 months)

Transmission
(3-6 years)

Key Takeaway: The forecasted pace of load growth could exceed the pace at which transmission capacity can be built to support it.

Interconnecting Generation & Load

- Generator Interconnection Process
 - Small generation process (existing)
 - Battery generation process (exploring)
 - Connect and manage process (existing)
- Large Load Interconnection Process (evolving)
 - Working closely with TSPs to find and develop a process to determine where large loads will be located
- Distributed Energy Resources (DERs) (evolving)
 - Working with TSPs to gather information on the distribution system, where previously ERCOT didn't have clear visibility
- Demand Response
 - Incorporating Industrial level demand response is well established and able to scale

Key Takeaway: ERCOT has processes to connect generation and load to meet the pace of forecasted growth.

New Era of Planning: Transmission System

RTPs – Generation Hubs	End of year	Probabilistic Analysis	Exploring/ working with vendors, computing options
Regional Reliability Report – Permian Basin	Summer 2024	Schedule transmission outages further out	Exploring
Resiliency Report	End of year	Continuously updated planning model	Exploring
Economic Test	Additional criteria added end of year	Enhancing Long-Term System Assessment (LTSA)	Exploring
765 kV Initiative Study	Exploring with results end of year		

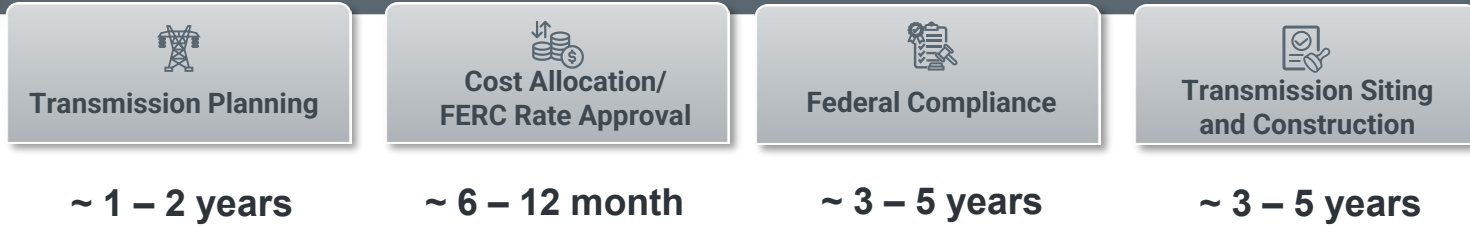
Key Takeaway: We are changing our transmission planning processes to adapt to the changing grid and exploring new opportunities to stay ahead of the growth curve.



FERC vs ERCOT Transmission Planning Process

Others

~ 7.5 to 13 Years



~ 3 to 6 Years



New Era of Planning: Closing Thoughts

- A new era of transmission system planning is necessary to manage the large amount of prospective load submitted by the TSPs.
- Recommended transmission projects to meet the large load – starting with the Permian Basin Regional Reliability Report this summer – could far exceed prior annual average infrastructure projects.
- It will take time to implement all the valuable tools from previous Legislative Sessions. Their combined benefit will take a few years to fully implement and should have a positive impact on the Texas power grid.
- Ultimately, the PUC will have “the final decision” in approving these recommended projects, including their costs and impacts on consumers.

Employee Recognition

VOLL Study

- PUC Staff
 - Harika Basaran
 - Ellie Breed
 - Chris Burch
 - Rich Parsons
 - Kim Van Winkle
- ERCOT Staff
 - Kristin Abbott
 - Matthew Arth
 - Seth Connel
 - Ryan King
 - David Michelsen
 - Mark Miner
 - Carl Raish
 - Randy Roberts
 - Pete Warnken
 - Trudi Webster
 - Rebecca Zerwas
- Brattle Group and PlanBeyond

Lubbock Transition

- Janice Ayson
- Seth Connel
- Farrah Cortez
- Davida Dwyer
- Ted Hailu
- Sarah Heselmeyer
- Brett Hunsucker
- Judy Luu
- Kennedy Meier
- Catherine Meiners
- Dave Michelsen
- Sheeja Mohan
- Randy Roberts
- Jeff Robertson
- Austin Rosel
- Magie Shanks