

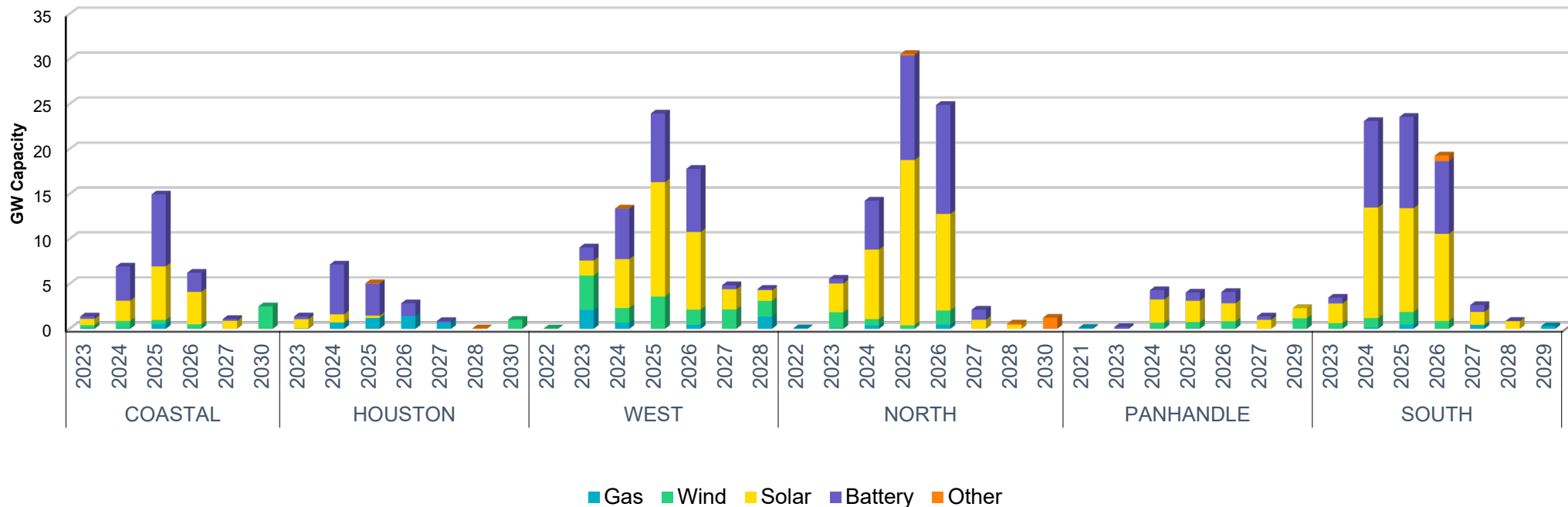
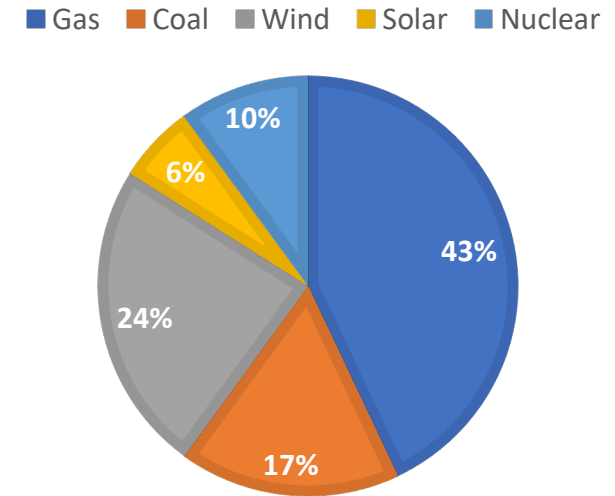
Overview: Legislature, PUCT & ERCOT

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ERCOT Grid is Always A-changing

- Future interconnection queue is largely battery & solar

2022 ELECTRICITY BY SOURCE



ERCOT Demand is Increasing – Climate & Economy Driving Peaks

Summer Peaks Have Increased

- Transmission Constraints are Real & Increasing In Costs
- ERCOT July 2023 Operations
- *“There were 31 days (of congestion) on the North Edinburg to Lobo GTC, 24 days on the Nelson Sharpe to Rio Hondo GTC, 5 days on the West Texas Export GTC, 20 days on the Valley Export GTC, and 12 days on the North to Houston GTC. ”*



Legislative Action

SB 3 (2021) & HB 1900 (2023)

- Requires PUCT to establish a new reliability standard
- Requires Weatherization Rules for Power Plants
- Requires new ancillary services such as the Dispatchable Resilient Reserve Service (by Dec 24)

SB 2627 and Prop 7 (Texas Energy Fund)

- If voters approve in November, makes available \$5 billion (or more) for loans and grants for “dispatchable”

SB 1699 (Aggregated DERs)

- Puts in statute some requirements for Distributed Energy Resources (Virtual Power Plants)
- Directs PUCT to establish some residential DR goals

Transmission Action

- SB 1281 (2021) – speeds up economic transmission projects
- HB 5066 (2023) – Speeds up PUCT decisions and requires action in high growth regions

PUCT Projects

Energy Efficiency Implementation Project

- Updating the Technical Reference Manual (TRM) to measure savings calculations to support energy efficiency efforts (aimed at competitive market)

Utility Resilience Plans

- Utilities may file resilience plans, and seek riders for the costs associated with those plans

Renewable Energy Credit Program

- Mandatory to voluntary, slightly lowers value of renewables

ADER Pilot Project

ERCOT

Performance Credit Mechanism Market Reform	Additional incentives for dispatchable generation, implementation many years away
Real-time Co-Optimization	Delivery 2026, may lower energy prices and allow more technologies to provide AS
NOGRR 245 Inverter-Based Resource (IBR) Ride-Through Requirements	Would require all IBRs to meet new standards for ride-through requirements, retroactive
NPRR1171 Requirements for DGRs and DESRs on Circuits Subject to Load Shedding (Board Approved)	Potentially limits the ability of DGRs and DESRs on circuits subject to load shed to provide the full suite of AS
NPRR1186 Improvements Prior to the RTC+B Project for Better ESR State of Charge Awareness, Accounting, and Monitoring	Establishes SOC requirements for batteries

Observed Themes

Emphasis on “dispatchability” although obstacles exist for advanced technologies that meet this standard

- Energy Storage, Batteries

Geothermal and hydrogen are emerging, rules limited

Requirements on renewables poised to expand

Incentives for thermal generation

ERCOT has become more risk-averse, has added more ancillary services and Reliability Unit Commitment (RUCs)

What could this mean for Austin Energy?

- Grid costs, ancillary costs, and congestion costs have increased
- Even greater need to control peak demand and overall load
- Having resources that can provide ancillary services can be valuable
- Interestingly, Austin Energy has no load side ancillary service and does not currently offer an ESR product
- Flexible resources that can respond quickly to changing conditions will be valued, as well as flexible demand resources
- Because of congestion and transmission, local energy resources may have increased value versus some distant generation sources
- If reliability standard is required, being able to cover our load plus a cushion (at least for key 100+ hours) may be needed