

Austin Energy's Generation Portfolio

Michael Enger

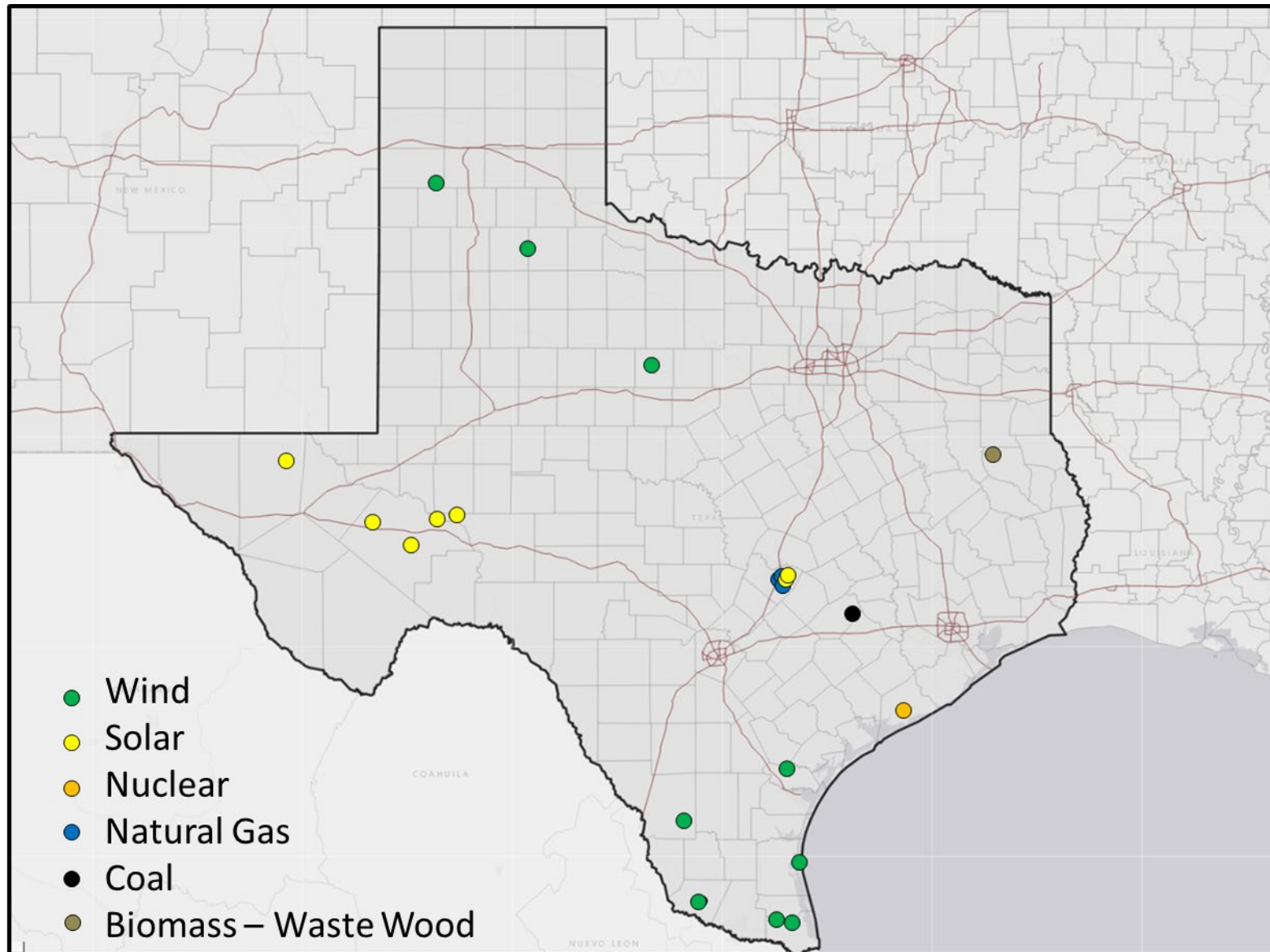
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May 16, 2023

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Austin Energy's Generation

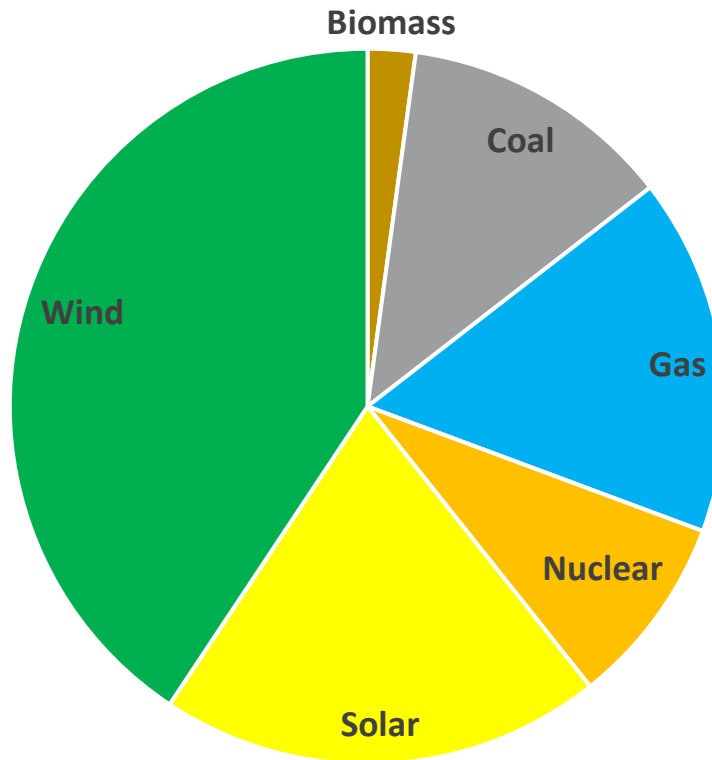


<u>Resource Type</u>	<u>Capacity (MWs)</u>
Wind	1796
Solar	973
Nuclear	420
Natural Gas	785
Coal	600
<u>Biomass</u>	<u>105</u>
Total	4679

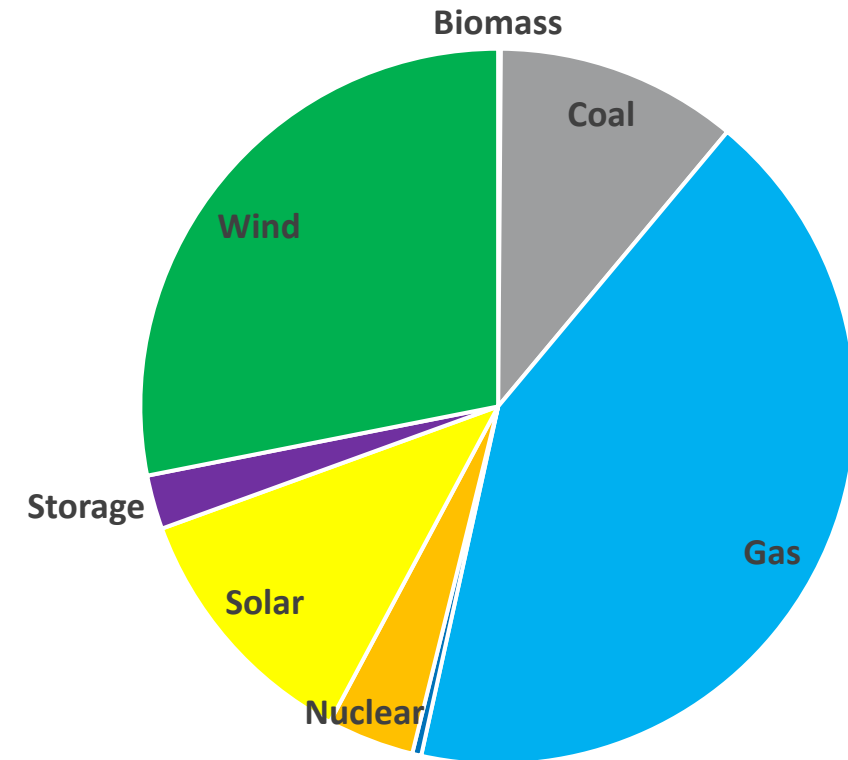


Austin Energy vs ERCOT Generation Capacity

Austin Energy Generation Mix



ERCOT Overall Generation Mix

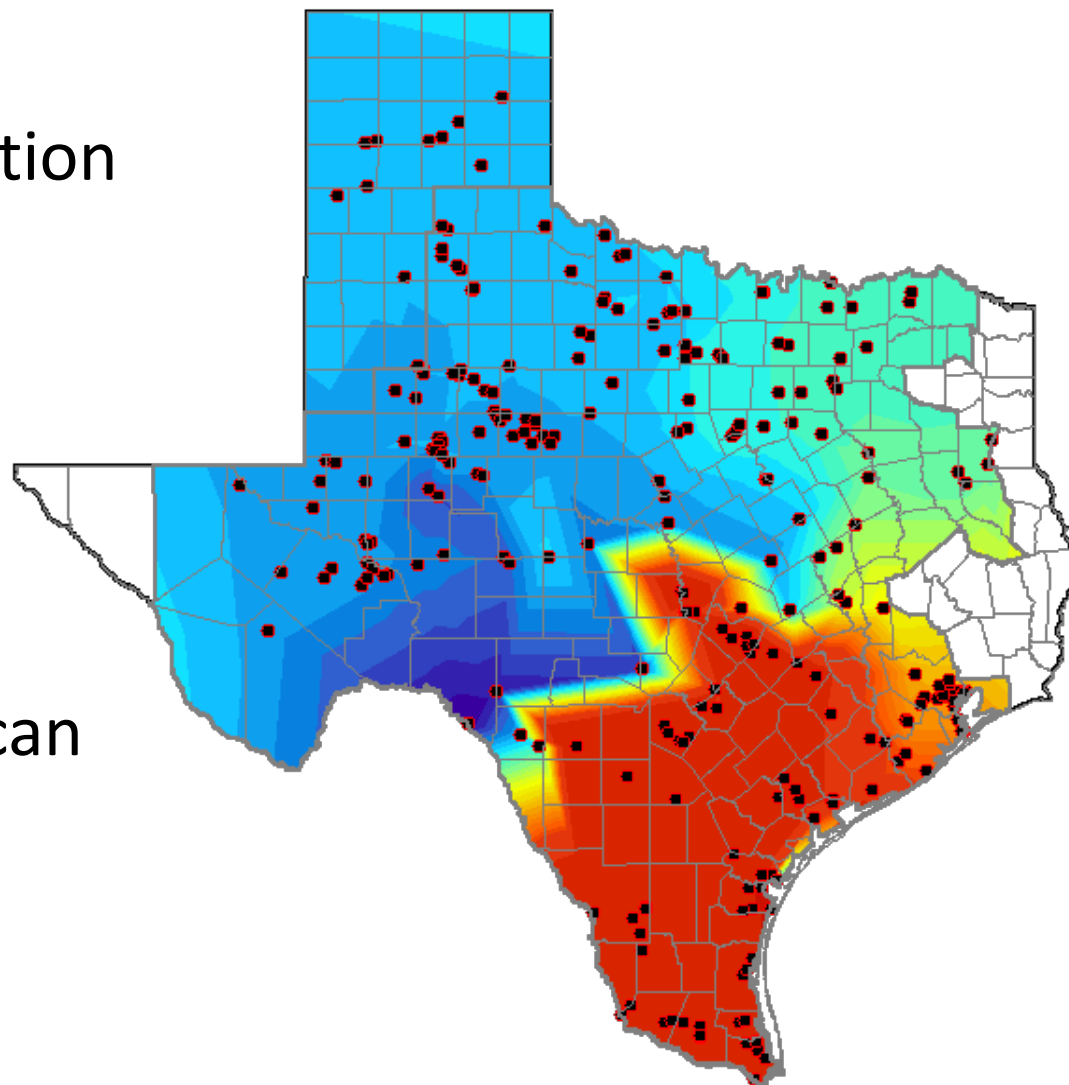


Generation Resources – What Do They Provide?

Generation Resource Type	Generation Output Type	Ancillary Services	Congestion Risk
Nuclear (South Texas Nuclear Project)	Output Schedule – Level Output	No	Mitigated through Pre-assigned congestion revenue rights
Coal (Fayette Power Project)	25% Output Schedule; 75% Dispatch to Price	Yes	Mitigated through Pre-assigned congestion revenue rights
Natural Gas (Combined Cycle)	40% Output Schedule; 60% Dispatch to Price	Yes	Low
Natural Gas (Gas Turbine)	100% Dispatch to Price; 0 to 100% in less than 30 minutes	Yes	Low
Solar	As the resource is available	No	High
Wind	As the resource is available	No	High
Biomass	Output Schedule; Some Dispatch to Price	No	Low

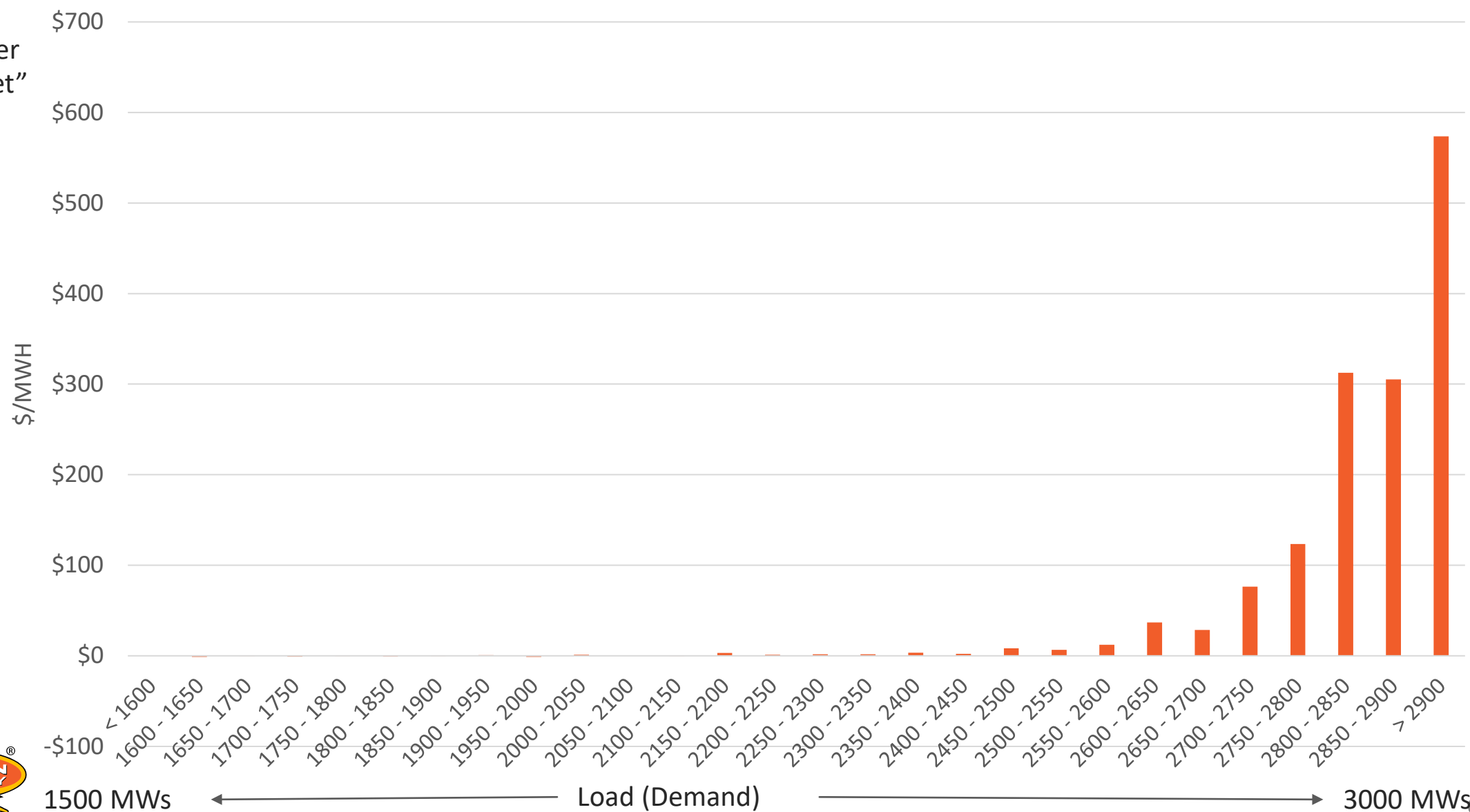
What is Congestion?

- When the price of power at the generation location is different than the price of power at our load's location
- Congestion is caused by Transmission Constraints
- When Austin Energy's Load is high we can experience Load Price Separation



Load Price Separation – July 2022

Dollars per
MWH greater
than “market”



ERCOT's Summer SARA — Seasonal Assessment of Resource Adequacy

- ERCOT provides 7 scenarios of varying probabilities
- No resource adequacy concerns for Base & Moderate Risk Scenarios (4)
- Only 1 “Extreme Risk” scenario indicates a risk of ERCOT mandated power outages
 - High Peak Load + Extreme Unplanned Generation Outages + Extreme Low Wind

Seasonal Assessment of Resource Adequacy for the ERCOT Region

Summer 2023

Release Date: May 3, 2023

Planning Reserve Margins

	Summer
Peak Demand Forecast, MW	82,739
Rooftop PV Forecast Reduction, MW	(432)
Large Flexible Load Adjustment, MW	1,105
Adjusted Peak Load Forecast, MW	83,412
Total Resources, MW	96,988
Emergency Resources Deployed by ERCOT, MW ¹	4,577
Planning Reserve Margin ²	23.0%

Formula: $PRM = (Total\ Resources / (Adjusted\ Peak\ Demand - Emergency\ Resources)) - 1$, expressed as a percentage

¹ The derivation of the emergency resource amount is described in the Scenario Assumptions Details tab.

² The Planning Reserve Margin (PRM) is the forecasted capacity reserve that can cover higher-than-expected peak demand and lower-than-expected resource availability when looking at months or longer in the future. This is in contrast to operating reserve measures that focus on actual available capacity during real-time and hour-ahead operating periods. Consequently, the PRM is not an appropriate measure of capacity reserves when operations timeframes are being considered.





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