



## **Item 7.2: System Planning Update**

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Vice President, Commercial Operations

Reliability and Markets Committee Meeting

ERCOT Public

April 27, 2022

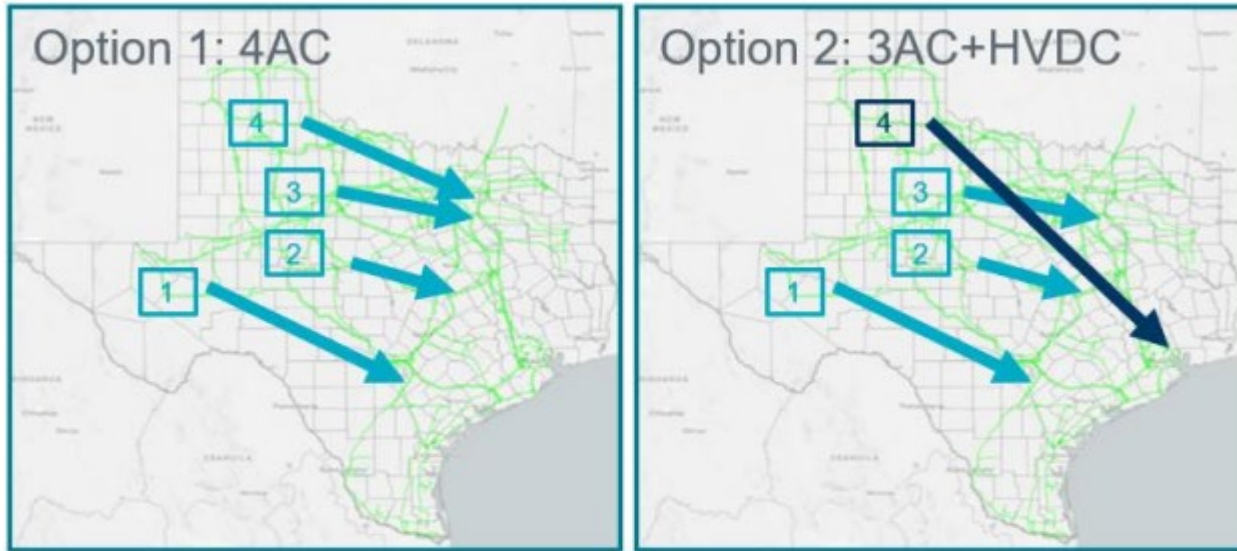


The following slides represent concepts that could be included in regular Planning updates to the R&M Committee.

# Planning Summary

- ERCOT is tracking 1,024 active generation interconnection requests totaling 204,868 MW as of March 31. This includes 107,046 MW of solar, 20,364 MW of wind, 57,742 MW of battery, and 17,764 MW of gas projects; 60 projects are categorized as inactive, up from 55 inactive projects in February 2022.
- ERCOT is currently reviewing proposed transmission improvements with a total estimated cost of \$939.46 Million as of March 31, 2022.
- Transmission Projects endorsed in 2022 total \$352.60 Million as of March 31, 2022.
- All projects (in engineering, routing, licensing and construction) total approximately \$8.00 Billion as of October 1, 2021.
- Transmission Projects energized in 2021 total about \$1.438 Billion as of October 1, 2021.

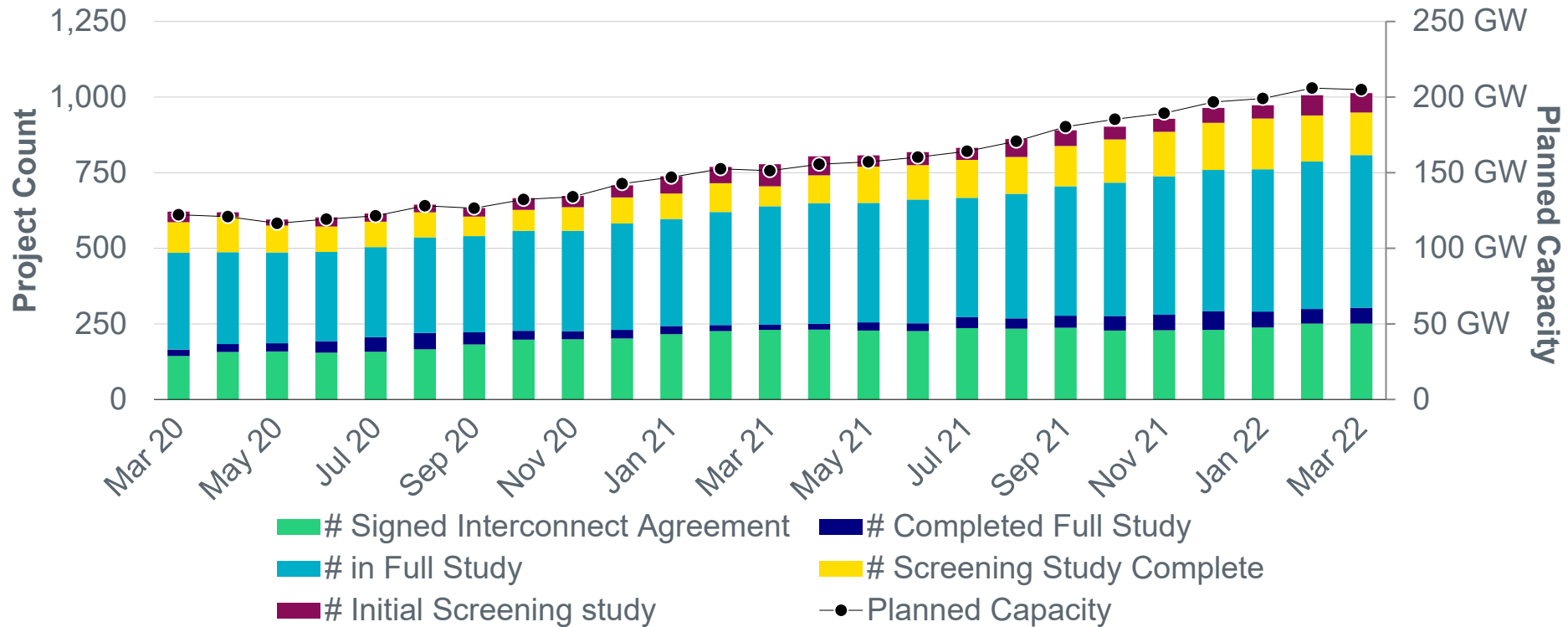
# Large Transmission Project Updates



1. Bakersfield-Howard
2. Brown-Bell
3. Clear Crossing-Watermill
4. Tesla-Royse

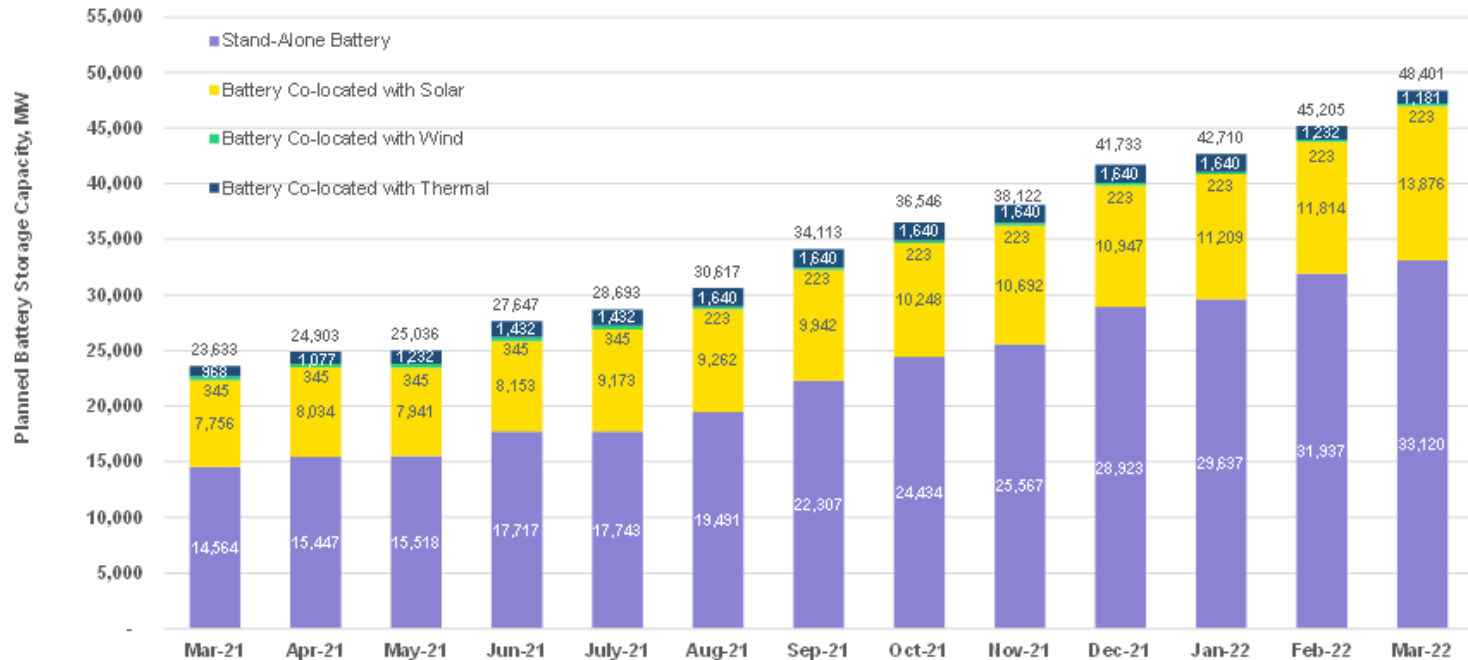
1. Bakersfield-Howard
2. Brown-Bell
3. Clear Crossing-Watermill
4. Tesla-King

# Generation Interconnection Updates



# Generation Interconnection Trends

Planned Stand-Alone and Co-located Battery Projects in Historic Generation Interconnection Status (GIS) Reports



	Mar-21	Apr-21	May-21	Jun-21	July-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22
Stand-Alone Battery	62%	62%	62%	64%	62%	64%	65%	67%	67%	69%	69%	71%	68%
Battery Co-located with Solar	33%	32%	32%	29%	32%	30%	29%	28%	28%	26%	26%	26%	29%
Battery Co-located with Wind	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	0%
Battery Co-located with Thermal	4%	4%	5%	5%	5%	5%	5%	4%	4%	4%	4%	3%	2%

# CDR or SARA Updates

Seasonal Assessment of Resource Adequacy for the ERCOT Region  
 Spring 2022\_DRAFT  
 Release Date: March 17, 2022

## Base & Moderate Reserve Capacity Risk Scenarios, MW

	Spring Maintenance Season, March - April			
	Forecasted April Peak Load / Typical Unplanned Outages / Typical Renewable Output	High April Peak Load / Typical Unplanned Outages / Typical Renewable Output	Forecasted April Peak Load / High Unplanned Outages / Typical Renewable Output	Forecasted April Peak Load / Typical Unplanned Outages / Low Renewable Output
<b>Scenario Assumptions</b>				
[a] Peak Load Forecast (Baseline)	58,305	58,305	58,305	58,305
[b] Rooftop PV Forecast Reduction, MW	(342)	(342)	(342)	(342)
[c] Adjusted Peak Load Forecast, [a+b]	57,963	57,963	57,963	57,963
[d] Total Resources (from Forecast Capacity tab)	94,394	94,394	94,394	94,394
<b>Uses of Reserve Capacity</b>				
Peak Load Increase, High	-	4,781	-	-
Typical Planned Outages, Thermal	6,155	6,155	6,155	6,155
Typical Unplanned Outages, Thermal	12,791	12,791	12,791	12,791
High Unplanned Outage Adjustment, Thermal	-	-	5,379	-
Low Wind Output Reduction to 3,602 MW	-	-	-	10,691
Low Solar Output Reduction to 3,398 MW	-	-	-	3,273
[e] Total Uses of Reserve Capacity	18,946	23,727	24,326	32,910
<b>Capacity Available For Operating Reserves</b>				
[f] Capacity Available for Operating Reserves, Normal Operating Conditions, [d-e] Less than 2,300 MW indicates risk of EEA1	17,485	12,704	12,105	3,521
[g] Emergency Resources deployed by ERCOT (An amount is only shown if Capacity Available for Operating Reserves is at or below 2,300 MW)	-	-	-	-
[h] Capacity Available for Operating Reserves, Emergency Conditions [f+g], MW Less than 1,000 MW indicates risk of EEA3 Load Shed	17,485	12,704	12,105	3,521

# Additional Topics to Consider

- Modeling dashboard
- Capital Project Updates
- Tool Developments
- Periodic Report Summaries