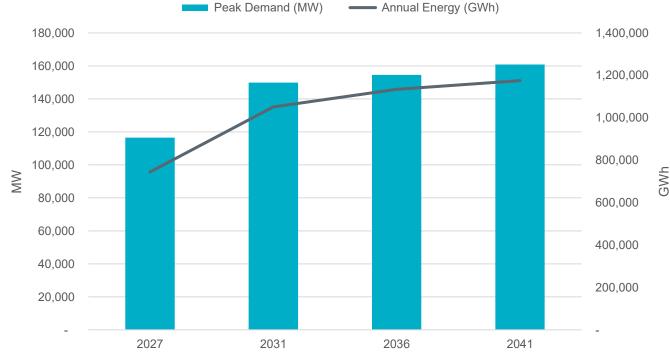


2026 LTSA Update: Current Trends Capacity Expansion Results

Fred Khodabakhsh ERCOT Dec. 16, 2025

Key Inputs to 2026 LTSA Current Trends

- Key inputs and assumptions to 2026 LTSA Current Trends were presented at May 2025 RPG meeting
 - The 2026 LTSA fuel prices are based on 2025 EIA-AEO Reference case.
 - Load forecast used for 2026 LTSA Current Trends (ERCOT Adjusted Forecast) includes adjustments applied to the TSP provided large load additions.
 - The load forecast includes projections for EV and rooftop PV.





New Unit Capital Costs for 2026 LTSA (Nominal \$/KW)

	Combined Cycle	Combustion	Internal	Nuclear—small Wind	Solar	Battery storage	Battery Storage	Battery Storage	
	multi-shaft	Turbine Advanced	combustion engine	modular reactor	vviiid	illu Solai	2 hours	4 hours	6 hours
2027	1,436	1,325	2,236	9,439	2,165	1,308	782	1,347	1,912
2028	1,439	1,319	2,272	9,450	2,180	1,289	770	1,326	1,882
2029	1,449	1,321	2,308	9,509	2,207	1,296	772	1,329	1,887
2030	1,466	1,331	2,344	9,598	2,242	1,306	778	1,339	1,901
2031	1,487	1,344	2,379	9,716	2,284	1,307	786	1,352	1,920
2032	1,508	1,357	2,417	9,831	2,325	1,311	789	1,359	1,929
2033	1,529	1,369	2,456	9,938	2,365	1,313	795	1,368	1,942
2034	1,540	1,364	2,494	10,033	2,403	1,312	798	1,374	1,950
2035	1,559	1,379	2,532	10,111	2,437	1,308	802	1,381	1,960
2036	1,581	1,395	2,568	10,201	2,475	1,308	806	1,387	1,969
2037	1,606	1,415	2,606	10,311	2,518	1,317	810	1,394	1,979
2038	1,633	1,437	2,645	10,425	2,563	1,328	814	1,402	1,990
2039	1,660	1,460	2,684	10,535	2,608	1,344	819	1,410	2,002
2040	1,688	1,482	2,725	10,647	2,654	1,361	825	1,420	2,016
2041	1,714	1,502	2,766	10,760	2,700	1,376	829	1,428	2,027

- Sources of capital cost assumptions:
 - Lazard's Levelized Cost of Energy Analysis (V18), June 2025
 - EIA AEO 2025
- 2-hour, 4-hour, and 6-hour battery candidates are included in 2026 LTSA
- The tax incentives for Solar and Wind are set to expire at the end of 2027.

Sources:

https://www.lazard.com/media/eijnqja3/lazards-lcoeplus-june-2025.pdf https://www.eia.gov/outlooks/aeo/assumptions/pdf/EMM Assumptions.pdf



Input Assumption Changes for 2026 Current Trends

- Operational and planned resources from the May 2025 Capacity Demand Report (CDR) were included in the starting capacity mix.
- Retirements include both permanent mothball status and unconfirmed retirements from May 2025 CDR.
 - No fixed-age retirements were considered in 2026 LTSA Current Trends analysis.
- All Texas Energy Fund (TEF) projects listed in the September 2025 GIS were included in the starting capacity mix before performing capacity expansion (8.8 GW of dispatchable resources).
- The start dates for non-TEF CCs and non-TEF CTs are based on the TEF projects. Specifically, the TEF projects for CTs cover the years 2027 to 2030. Thus, the start year for CT capacity expansion additions is set to 2031. Similarly, the TEF projects for CCs span from 2027 to 2029, so the start year for CC capacity additions is set to 2030.



Starting Capacity Mix Overview

 The starting capacity mix includes all the resources from May 2025 CDR report and remaining TEF projects from the September 2025 GIS that didn't qualify to be in the CDR.

		2024LTSA - Current	Trends (MW)	2026LTSA - Current Trends (MW)				
	Operational Resources	Planned Resources	Retirements	Total Net Starting Capacity	Operational Resources	Planned Resources	Retirements	Total Net Starting Capacity
Battery	2,335	6,523	-	8,858	11,385	18,017	_	29,402
Combined Cycle	40,138	551	4,352	36,337	40,161	1,371	134	41,398
CT & IC	11,733	900	1,206	11,427	12,716	7,770	158	20,328
Gas Steam	11,155	60	10,766	449	12,656	-	2,340	10,316
Solar	9,940	23,312	-	33,252	31,182	29,611	_	60,793
Wind	31,495	7,276	-	38,771	39,598	4,650	7	44,241
Coal	13,630	-	10,987	2,643	12,218	-	560	11,658
Hydro	593	-	-	593	570	-	_	570
Nuclear	5,153	-	-	5,153	5,153	-	_	5,153
Other	790	-	105	685	161	-	_	161
Total	126,961	38,622	27,416	138,168	165,799	61,419	3,199	224,019

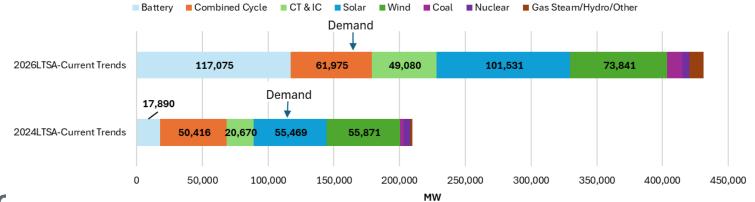
- The capacities include PUN units
- The capacities of coal to gas conversion units are included in gas steam resource type
- 2026LTSA retirements include permanent mothball status, unconfirmed retirements and economic retirements from the model.
- 2024LTSA retirements include fixed age retirements (coal units retire after 45 years and gas units retire after 60 years) and economic retirements from the model.



15-Year Total Capacity Mix Comparison (2027 to 2041)

 2026LTSA identified the need to add 49.3 GW of non-TEF Gas, 40.7 GW of Solar, 87.7 GW of Battery and 29.6 GW of Wind in order to meet the expected demand and retirements.

	2024LTSA - Current	Trends (MW)	(2025 - 2039)	2026LTSA - Current Trends (MW)			
	Total Net Starting	Capacity	Total Capacity	Total Net Starting	Capacity	Total Capacity	
	Capacity	Expansion	Mix	Capacity	Expansion	Mix	
Battery	8,858	9,032	17,890	29,402	87,673	117,075	
Combined Cycle	36,337	14,079	50,416	41,398	20,577	61,975	
CT & IC	11,427	9,243	20,670	20,328	28,752	49,080	
Gas Steam	449	-	449	10,316	-	10,316	
Solar	33,252	22,217	55,469	60,793	40,738	101,531	
Wind	38,771	17,100	55,871	44,241	29,600	73,841	
Coal	2,643	-	2,643	11,658	-	11,658	
Hydro	593	-	593	570	-	570	
Nuclear	5,153	-	5,153	5,153	-	5,153	
Other	685	-	685	161	-	161	
Total	138,168	71,671	209,838	224,019	207,340	431,359	



Preliminary Results of 2026 LTSA Current Trends

Description	Units	2027	2031	2036	2041	Total
CC Adds	MW	-	4,332	10,830	5,415	20,577
CT Adds	MW	-	3,081	15,405	4,266	22,752
IC Adds	MW	-	2,500	3,125	375	6,000
Storage Adds	MW	35,246	49,180	741	2,506	87,673
Solar Adds	MW	27,746	12,992	-	-	40,738
Wind Adds	MW	3,000	12,000	11,000	3,600	29,600
Annual Capacity Additions	MW	65,992	84,085	41,101	16,162	
Cumulative Capacity Additions	MW	65,992	150,077	191,178	207,340	
Retirements	MW	1,781	970	448	-	
Cumulative Retirements	MW	1,781	2,751	3,199	3,199	
Coincident Peak	MW	116,554	149,860	154,498	160,832	
Peak Net Load (1)	MW	83,884	113,797	119,235	124,075	
Minimum Net load (1)	MW	7,018	13,448	15,577	14,009	
Annual Energy	GWh	744,204	1,050,969	1,133,949	1,174,982	
Average LMP	\$/MWh	30.72	71.16	52.22	55.34	
Natural Gas Price	\$/MMbtu	2.76	3.67	5.60	6.09	
Average Market Heat Rate	MMbtu/MWh	11.12	19.39	9.33	9.08	
Natural Gas Generation	%	43.5	45.9	45.5	46.5	
Coal Generation	%	5.5	7.6	7.5	7.1	
Wind Generation	%	22.1	21.2	23.9	24.3	
Solar Generation	%	23.8	21.3	19.9	19.1	
Scarcity Hours	HRS	-	14	-	-	
Unserved Energy	GWhs	-	56	-	-	
Large Flexible Load Curtailment Hours	Hours	64	1,901	-	-	
Large Flexible Load Curtailment Energy	GWhs	107	4,741	-	-	

⁽¹⁾ Hourly Net Load = Total Demand – Hourly Wind Output – Hourly Solar Output The Net Load include the battery charging load and losses



Observations for 2026LTSA Current Trends

- The 2026 LTSA Current Trends model adds more gas, solar, and battery resources compared to 2024, driven by high demand growth.
- The new battery resources added to 2026 LTSA Current Trends include 60.5 GW of 2-hour batteries, 21.1 GW of 4-hour batteries and 6.1 GW of 6-hour batteries.
- The new solar and batteries added to 2026 LTSA includes 20.7 GW of co-located battery and solar resources out of the total battery and solar added by the model.

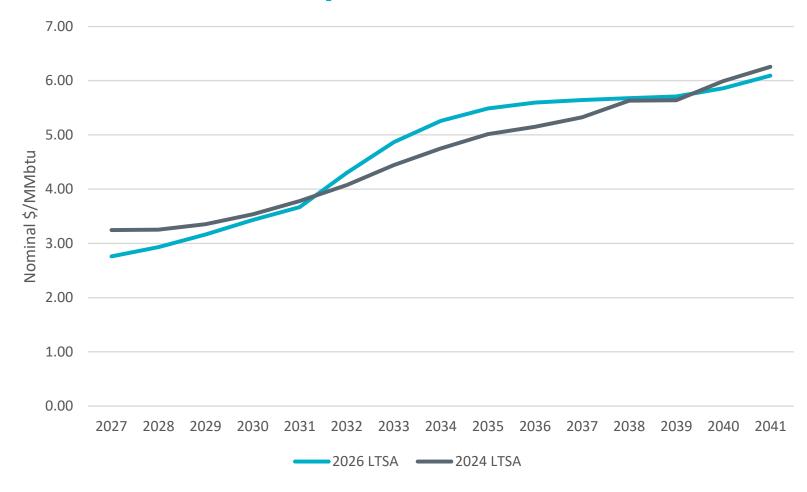


Questions

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Natural Gas Price Assumptions



- The 2026 LTSA fuel prices are based on 2025 EIA-AEO Reference case.
- The 2024 LTSA was based on 2023 EIA-AEO Reference case.



Other Input Assumption for 2026 LTSA Current Trends

- The annual capacity expansion for CCs is limited to two units starting in 2030. For CTs, the limit is 3,000 MW per year starting in 2031.
- Wind capacity additions are capped at 3,000 MW annually.
- According to the EPA, ERCOT faces a seasonal NOx emission cost of \$166 per ton.
- The rate of inflation is assumed at 2.2%.

