This report summarizes the results of ERCOT's drought risk prediction model for July 2024. This analysis identifies potential drought-related impacts to generation availability in the region based on a current snapshot of system conditions, and is not intended to be an exact prediction of future generator outages. ERCOT uses the results of this analysis as a signal to initiate coordination with owners of potentially affected generation capacity.

ERCOT estimates the amount of capacity and generation potentially at risk of losing water supplies within the next 18 months based on current reservoir levels, historical withdrawals under drought conditions, and a three-month weather forecast.

Generation or capacity "at-risk" refers to generation resources with water supplies at or approaching low levels (i.e., level of intake).
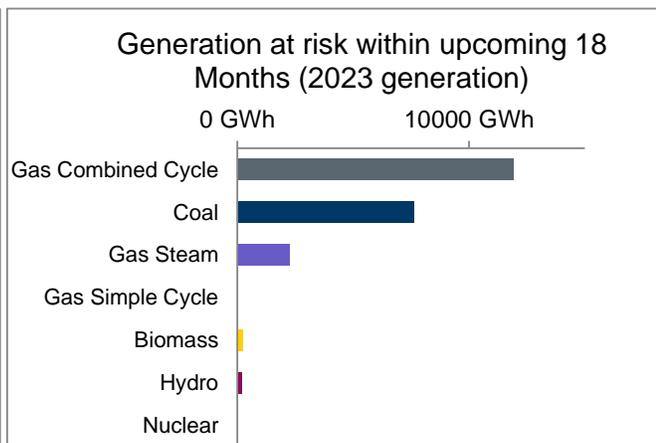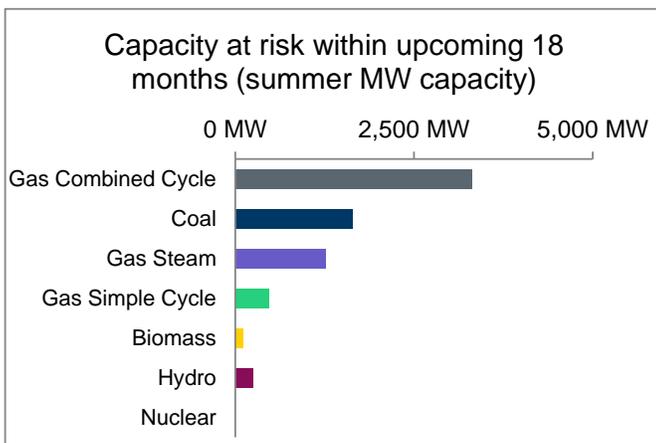
Water conditions as of July 1 indicate 36 MW of generation capacity is at risk of losing water supplies due to low water levels. We have communicated with resource owners to understand their unit risk assessment and mitigation plans.

Summer Capacity (MW) Potentially at Risk

Annual 2023 Generation (TWh) Potentially at Risk
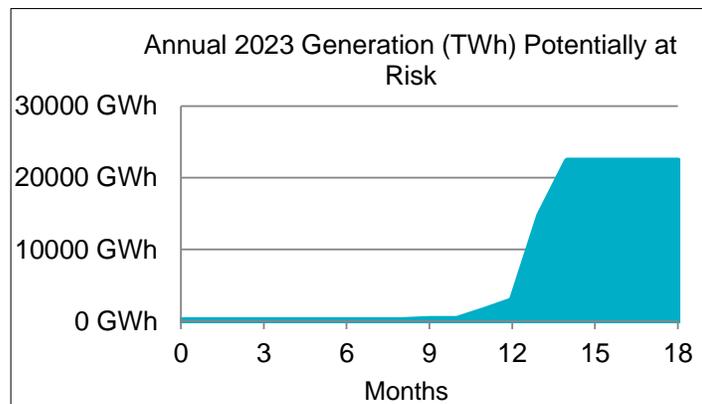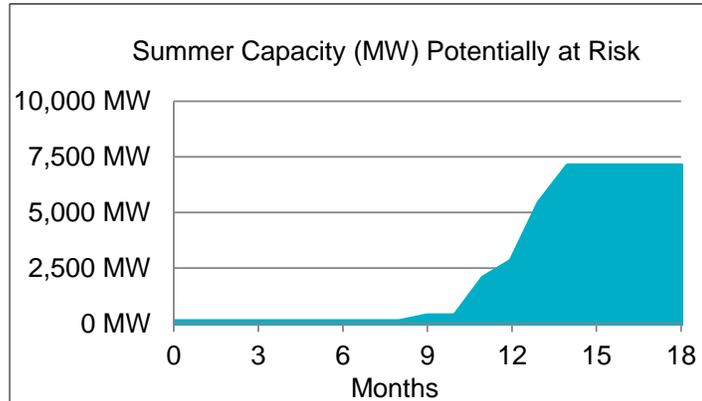
Footnotes:
-The prediction is based on a July 1 snapshot of storage levels at reservoirs and aquifers and assumes a Normal Conditions three-month weather outlook (July - September).
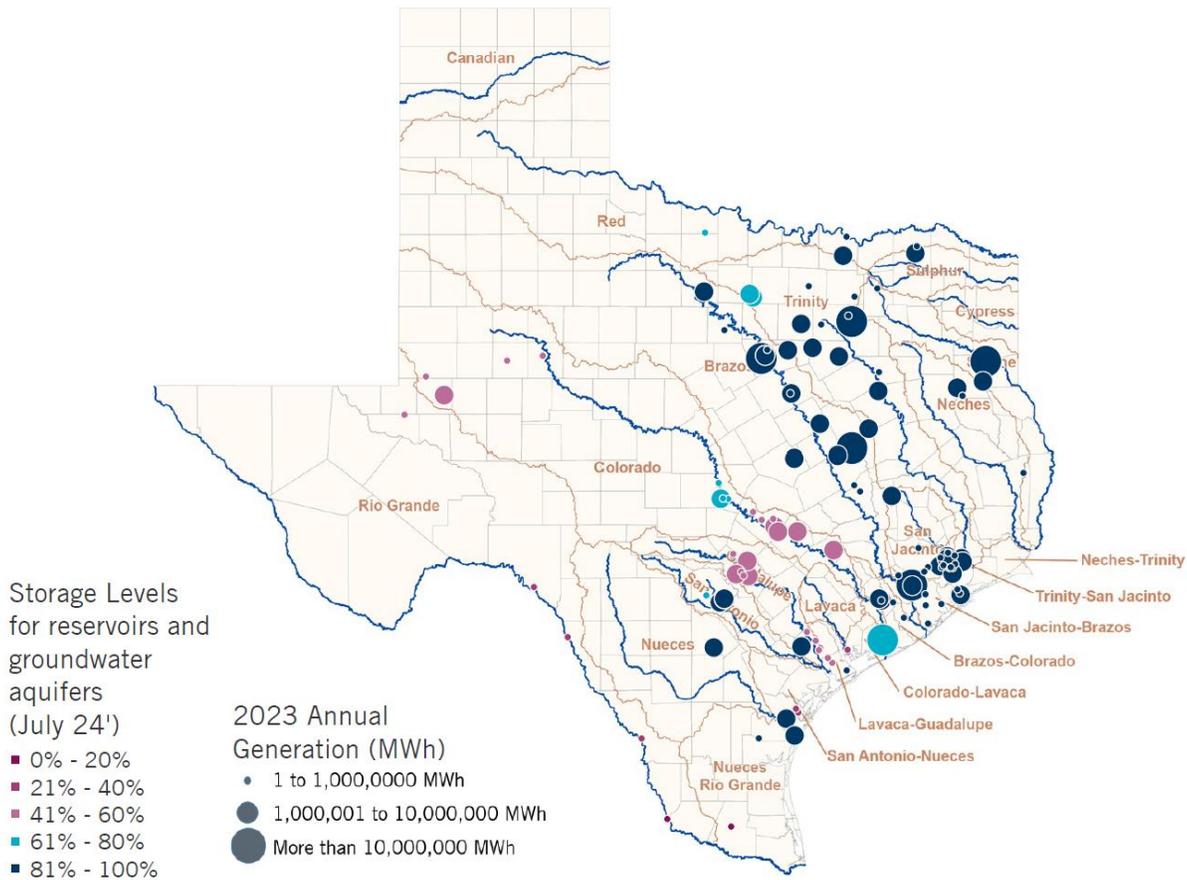
-This report is (1) not intended to be a prediction of future generator outages, and
(2) is used by ERCOT to initiate coordination with owners of potentially affected generation capacity.

Capacity at risk within upcoming 18 months (summer MW capacity)

Generation at risk within upcoming 18 Months (2023 generation)

The map below shows the current reservoir or groundwater storage available in the primary reservoirs from which generating resources in the ERCOT region withdraw water.*

Each dot on the map corresponds to a generating site, sized according to the amount of energy (MWh) provided to the grid annually in 2023, and colored according to the amount of storage currently available in the reservoir or aquifer.

Reservoir Storage as of July 1, 2024

Storage Levels
for reservoirs and
groundwater
aquifers
(July 24')
- ■ 0% - 20%
- ■ 21% - 40%
- ■ 41% - 60%
- ■ 61% - 80%
- ■ 81% - 100%

2023 Annual
Generation (MWh)
- · 1 to 1,000,0000 MWh
- ● 1,000,001 to 10,000,000 MWh
- ● More than 10,000,000 MWh

*Ocean water sources are assumed to be at 100% of available storage.

Additional information about ERCOT's drought risk analysis methodology and related reports can be found at

http://www.ercot.com/gridinfo/resource

Comparing August 2023 to July 2024 Water Levels			
Key Model Metrics	Changes	Number of Reservoirs/ Groundwater Aquifers	Percentage of Reservoirs/ Groundwater Aquifers
Current % Storage	Improved	24	41%
	Same	17	29%
	Deteriorated	17	29%
Months until At Risk*	Improved	20	34%
	Same	28	48%
	Deteriorated	10	17%
*The tool assumes at-risk levels at 20% of total storage for drainage-fed reservoirs and 50% of total storage for off-channel reservoirs.			

Background

When the water supply becomes "severely at-risk" (at risk within six months), the generator can still withdraw water for cooling water and other purposes. However, this is a trigger point at which the owner of the resource should evaluate mitigation options. In some cases, mitigation is not possible due to customer demand, financial, or operational constraints. In these cases, a second trigger point would occur when the water supply reaches the intake level and becomes non-operational.

Generation technology type impacts the amount of water a unit uses in the generation process and for cooling. Simple cycle power generation units generally have a much lower water consumption compared to other technologies. These generation units are included in ERCOT's drought risk analysis because there is some risk of a drought-related outage. However, this risk is lower for simple cycle units than for other generating technologies. Depending on the unit configuration and operating characteristics, simple cycle units continue to operate even once reservoirs or groundwater aquifers reach low water levels.

The drought model includes a weather forecast based on temperature and precipitation outlooks. The forecast (provided by the ERCOT Load Forecasting department) covers the upcoming three months and adjusts the water level drought probability curves in the drought tool.