

Creating the Customer-Powered Grid™ Across Texas

When the grid is stressed, ERCOT takes the following steps to avoid blackouts across the state:

Real Time Pricing: this relies on basic economics to deter electricity consumption. As demand rises and approaches the reserve margin, prices start to rise. Large consumers monitor the real time price and determine it's more economically sound to stop consuming (and producing in the commercial sector) given the escalating electricity prices.

If demand continues to rise...

4CP: During the summer months, there are about 1,500 MW of “peak-chasing” load that can be curtailed by a collection of consumers seeking to lower their 4CP charges the following year. Typically, this load will come off the grid between 3-6pm during the hottest days of the year.

If demand continues to rise...

Non-Spinning Reserves: A new program that procures 6,500 MW of non-spinning reserve generation in the day-ahead market and up to an additional 1,000 MW on days with high demand forecasted or uncertainty such as an estimated lack of wind or sun that, in turn, leads to wind and solar resources being unable to produce electricity.

If demand continues to rise...

Emergency Response Service 10 & 30: The PUCT ordered ERCOT to now call ERS prior to public calls for conservation.

If demand continues to rise...

Voluntary Curtailments: when demand infringes the 3,000 MW mark of the reserve margin, ERCOT issues a series of public address announcements urging consumers to voluntarily shed their load.

If demand continues to rise...

Energy Emergency Alert 1 (EEA1): ERCOT operator’s authority to call on all available power supplies.

If demand continues to rise...

Energy Emergency Alert 2 (EEA2): Load Resources and Utility Demand Response programs are called.

If demand continues to rise...

Rolling blackouts: ERCOT will instruct utilities to rotate power outages in an effort to avoid statewide blackouts.

<3,000 MW Reserves For 30 Minutes	ERS 10/30 may be called at this point.
Conservation Alert	ERCOT may call upon consumers to take steps to consume power by reducing consumption.
EEA 1	Texas Electricity Conservation Needed: ERCOT operator's authority to call on all available power supplies.
EEA 2	Conservation Critical; Risk of Rotating Outages: ERCOT escalates to a Power Warning, which allows ERCOT operators to dispatch Load Resources providing Responsive Reserve Service
EEA3	Rolling blackouts to all areas of ERCOT grid: If the capacity shortage is not relieved using voluntary and contractual demand response, ERCOT will instruct utilities to rotate power outages to prevent statewide blackouts

Demand-Side Management Options in ERCOT

To maintain grid reliability and help organizations in Texas offset their energy use and spend, ERCOT offers the following demand-side energy management programs:

Demand Response

Emergency Response Service (ERS)

ERCOT's entry-level demand response program. ERS pays organizations for using less energy when the grid is stressed or when electricity prices are high. There are two types of ERS programs: ERS 10 and ERS 30, which pay businesses for being available to curtail their energy loads within 10 and 30 minutes.

Load Resource (LR)

LR is potentially 2-3 times more financially rewarding than other ERCOT programs for businesses who participate. The Load Resource Program is capped at 1400-1750 MW of total procurement. If more than this limit clears the market, then proration will be triggered.

SOP Utility Program

Each utility offering this program has specific goals. The SOP program is very similar to ERS, except it is called only in summer afternoons.

Non-Spinning Reserves

This is a new demand response program that customers can participate in beginning Summer 2022. Non-Spin is similar to LR, but the required response time is 30 minutes and there is no UFR required.

Demand Management

4CP Management

Every month your business is charged a fee—called a peak charge or, more specifically in Texas, a 4CP charge—based on how much electricity an organization consumed during the period when electricity demand on the grid was at its highest.

4CP management involves curtailing energy consumption during periods of peak system load, thereby lowering 4CP value, which in turn reduces 4CP power charges the following year.

Contact **CPower's Texas Team** to learn more.

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