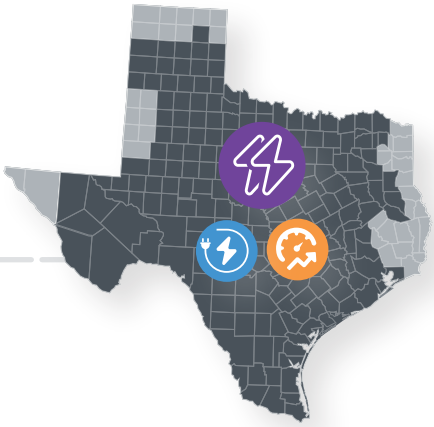
Ancillary Services

With the implementation of the Real-Time Co-optimization Plus Batteries (RTC+B) market design in December 2025, Ancillary Services are purchased by ERCOT to balance supply and demand of electricity on the grid and mitigate real-time operational issues. Ancillary Services can be provided by generators or consumers to increase or decrease the supply of electricity in a matter of minutes or even seconds.



REGULATION UP

Capacity that can immediately increase generation output to manage grid frequency

REGULATION DOWN

Capacity that can immediately decrease generation output to manage grid frequency

REGULATION SERVICE

Reserve capacity that is deployed every four seconds to balance supply and demand

RESPONSIVE RESERVE SERVICE

Reserve capacity that can balance supply and demand if a generator trips offline

NON-SPIN RESERVE SERVICE

Capacity that can be available within 30 minutes to cover errors in the forecast or to replace deployed reserves

ERCOT CONTINGENCY RESERVE SERVICE (ECRS)

Capacity that can respond within 10 minutes to address forecasting errors or to replace deployed reserves

Does ERCOT set the required amount of each Ancillary Service?

ERCOT sets the minimum amount of each Ancillary Service based on historic variability of the risks that each Ancillary Service is used to mitigate, adjusted for any known changes and other regulatory requirements. The quantities typically vary by month and hour of the day. While ERCOT posts expected quantities before the year begins, the implementation of the RTC+B market design means that some Ancillary Service quantities are dynamically adjusted closer to the operating day and even in real time to reflect actual system conditions.

How are Ancillary Services procured?

Resources that would like to provide one of the Ancillary Services register to do so and are tested to prove they can provide the required operating characteristics. Once they are approved, the resources can bid into the Real-Time Market to provide services. ERCOT procures the required amount of each type of Ancillary Service from the qualified offers. ERCOT makes purchases from resources to meet Ancillary Service needs in a way that results in the lowest expected energy and Ancillary Services costs; applying competitive pressure keeps costs lower for customers.

What types of resources provide Ancillary Services?

Many different types of resources have the required operating characteristics and can qualify to offer different Ancillary Services:

- **Generation Resources (GR):** generating units that produce power
- **Non-Controllable Load Resources (LR):** large loads that can be interrupted automatically in response to low frequency or in response to ERCOT instruction
- **Controllable Load Resource (CLR):** large loads that offer into the Real-Time Market and can reduce or increase consumption based on the 5-minute market dispatch
- **Aggregate Load Resource (ALR):** an aggregation of individual metered sites, each of which has less than 10 MW of Demand Response capability and all of which are located within a single load zone and can function like a CLR
- **Energy Storage Resource (ESR):** primarily large batteries that function as GRs when discharging power and CLRs when charging

How are Ancillary Services paid for?

Resources selected to provide an Ancillary Service for a particular time period are paid the same clearing price (the price point where supply is equal to demand) for that service. The costs for Ancillary Services are paid for by the Market Participants representing Load-Serving Entities (like retail electric providers and municipal and co-operative utilities) that provide electric service to individual and wholesale customers.

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