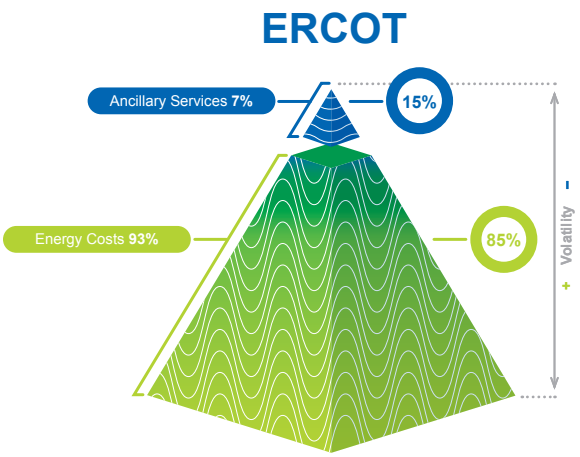
Ancillary Services in the ERCOT Crisis
February 2021

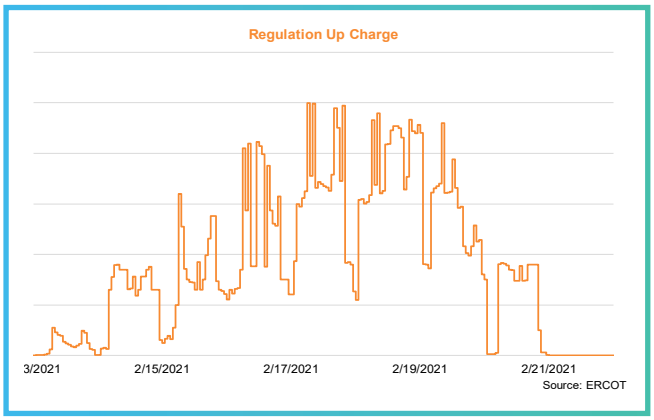
Ancillary Service costs ensure reliability of the electric grid. There are four principal ISO-wide ancillaries that historically range from $3.00/MW to $4.00/MW. During the February 2021 winter weather event these ancillaries saw extreme spikes. These ancillaries are not capped with price limits. It's important to note that these pricing variables can be presented differently among retail electricity providers.

If retroactive adjustments to clearing prices are not made, it is possible to see these prices increase to unprecedented levels. The data source for these charts is the Day Ahead Market clearing prices for these ancillaries as published by ERCOT. ERCOT pays this amount to generation units to provide the service. The total amount ERCOT pays is charged to Load Serving Entities based upon a proration determined by load share. The actual amount charged to customers is typically much lower because it is spread across all megawatt hours.



01 Regulation Up Charge

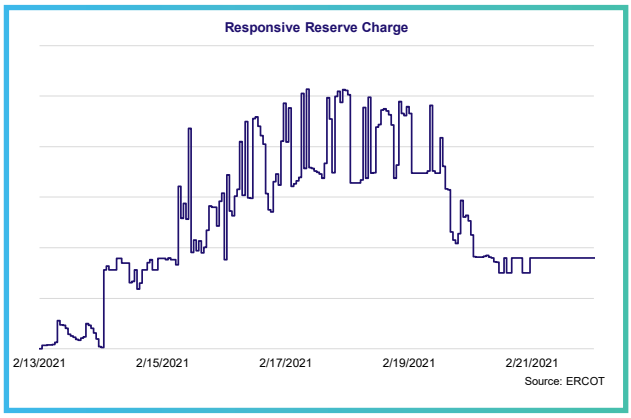
Regulation Up Charge pays operators who can provide frequency regulation service to increase generation output. All equipment on the grid is designed to operate at 60hz. Changes in supply and demand can impact the frequency on the grid. Even a one percent deviation can cause equipment failure.



Natural gas production in Texas fell from 22.5 bcf/d in December to about 12 bcf/d during the crisis due to freeze-offs at wellheads and gas processing plants.

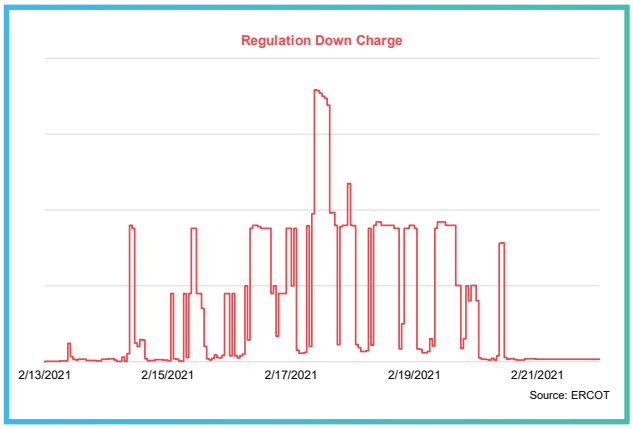
02 Responsive Reserve Charge

Responsive Reserve Charge supports grid reliability by ensuring generation reserves are available as backup in case of a generation trip.



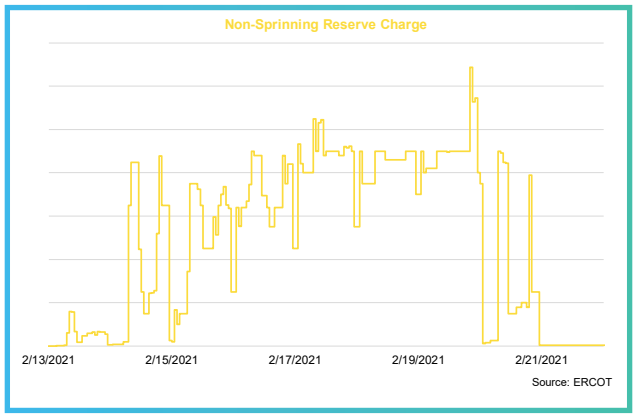
03 Regulation Down Charge

Regulation Down Charge pays operators who can provide frequency regulation service to reduce generation output. All equipment on the grid is designed to operate at 60hz. Changes in supply and demand can impact the frequency on the grid. Even a one percent deviation can cause equipment failure.



04 Non-Spinning Reserve Charge

Non-Spinning Reserve Charge pays generators who are standing by, ready to run, within a 30-minute notice.



The days of mid-February 2021 in ERCOT represented the most expensive energy market in US history, topping the 2001 California energy crisis. This paper offers a brief overview of ancillary service charges. Actual customer impact will depend on several factors. For a detailed discussion about your account, please contact your ENGIE business development representative.

ERCOT followed emergency protocols to avoid damage to equipment when demand for power exceeded the supply of generation available on the grid.