Texas Winter Outage
Quick Facts

The Texas Legislature restructured the Texas electric market in 1999 by unbundling the investor-owned utilities and creating retail customer choice in those areas, and assigned ERCOT four primary responsibilities:

- System reliability – planning and operations
- Wholesale market settlement for electricity production and delivery
- Retail switching process for customer choice
- Open access to transmission

ERCOT Region

75% of load is competitive-choice customers — nearly 8 million electric-service IDs (premises)

90% of Texas Load

1,800+ active market participants that generate, move, buy, sell or use wholesale electricity.

650+ generating units, excluding PUNs

More than 25 million consumers in the ERCOT region

78,000+ megawatts (MW) of capacity for peak demand as of December 2018

Transmission projects energized in 2019 total $1.3 billion

46,500+ circuit miles of high-voltage transmission

74,820 MW Record peak demand (August 12, 2019)

71,930 MW Weekend peak demand record (August 11, 2019)

1 MW of electricity can power about 200 Texas homes during periods of peak demand.
ERCOT oversees the flow of power from power plants to substations.

- 51,667 MW Gas (47.45%)
- 13,630 MW Coal (12.52%)
- 5,153 MW Nuclear (4.73%)
- 31,390 MW Wind (28.83%)
- 6,177 MW Solar (5.67%)

~46,500 Miles of Transmission Lines
~5,000 Substations

~26 Million Texans

MW represent installed capacity
Available Generation and Estimated Load Without Load Shed

Available Generation shown is the total HSL of Online Resources, including Quick Starts in OFFQS. The total uses the current MW for Resources in Start-up, Shut-Down, and ONTEST.
Rapid Decrease in Generation Causes Frequency Drop

- Entered EEA 3 1,000 MW Load-shed Ordered
- 35,343 MW Generation Capacity Out as of 1:23 am
- 1,418 MW Generation Outages 1:26 am – 1:42 am
- 248 MW Generation Outages
- 329 MW Generation Outages
- Additional 1,000 MW Load-Shed Ordered (Total 2,000 MW)
- Below 59.4 Hz for 4m 23s
- More Gen Units would have tripped if below 59.4 for 9m or more
- 594 MW Generation Outages
- 843 MW Generation Outages
- 841 MW Generation Outages
- Additional 3,500 MW Load-Shed Ordered (Total 8,500 MW)
- 688 MW Generation Outages
- 511 MW Generation Outages
- Additional 3,000 MW Load-Shed Ordered (Total 5,000 MW)
- Min Frequency 59.302 Hz
Generation Capacity Out February 14 – 19, 2021

Peak Generation Out: 48.6%
(52,277 MW out of 107,514 MW total installed capacity)

- 25,000 MW of forced outages, including 14,000 MW of wind and solar
- 2,800 MW of planned outages, including seasonally mothballed capacity
Isolation

North American Electric Reliability Corporation Interconnections

WESTERN INTERCONNECTION

EASTERN INTERCONNECTION

ELECTRICITY RELIABILITY COUNCIL OF TEXAS INTERCONNECTION
Idaho Power’s Resources
Idaho Power
2020 Summer Peak
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Idaho Power
Emergency Preparation

- Energy Emergency Alerts (EEA1, EEA2, EEA3)
- WECC under frequency protections
- Rotating outage preparation
Market Design & Deregulation

• Texas energy market design
  - Who are the winners?
  - Who are the losers?

• Who oversees grid reliability?
Clean and Reliable

WE KEEP THE LIGHTS ON 99.96% OF THE TIME
Clean and Affordable

Our prices are more than 20% below the national average.
We are continuing our path away from coal.

The proposed Boardman to Hemingway transmission line should help move clean energy.

We’re investing in solar power.