

U.S. Municipal Bond Market

# Texas Freeze

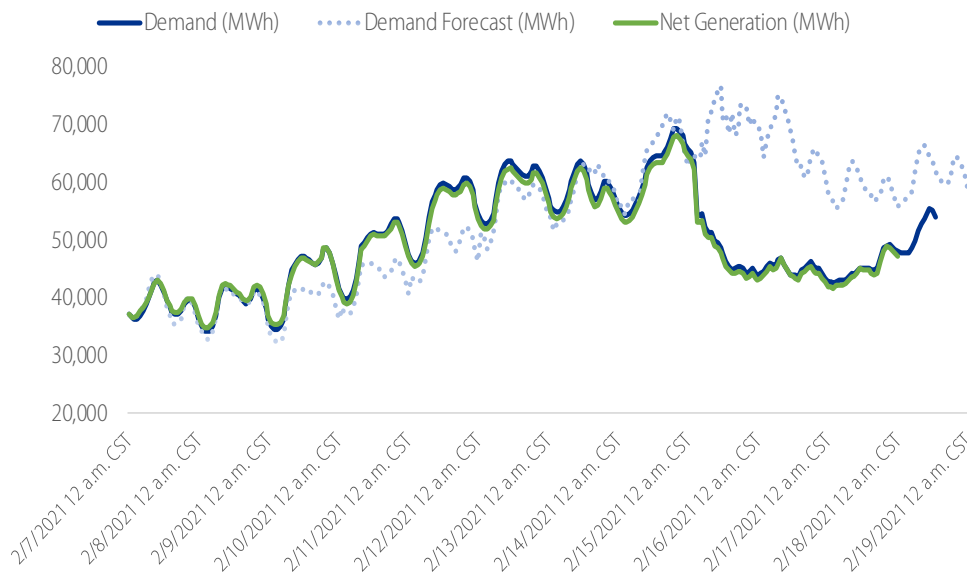
- Highly uncommon temperatures created a significant supply and demand imbalance that caused millions of individuals and businesses in the Texas, Kansas, Louisiana, and Oklahoma regions to go without power for several days this week. The extent of the overall damage is still not known.
- We estimate costs, at the low end, could amount to \$25-50 billion. It is likely a significant amount of federal and state aid or relief in different forms could be needed in the wake of this week's events.

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## Electricity Supply and Demand Imbalance

As if dealing with a year-long, worldwide pandemic was not enough, mother nature dealt the state of Texas and surrounding region (including Kansas, Louisiana, and Oklahoma) a costly blow this week. Close to zero degree temperatures and snow are daily occurrences in many parts of the United States, but not in Texas. The average high temperature for February in Texas is 61 degrees, and the average low is only 34. This week, temperatures were between 3 degrees and 21 degrees Sunday through Tuesday in Dallas, Texas and were even colder in other parts of the state.

## Texas Electricity Overview (Demand, Demand Forecast, Net Generation)



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Source: Electric Reliability Council of Texas, Inc. (ERCOT) and HilltopSecurities.

There are not many plows for roads, not much is spent on salt and sand, and homes usually are not even built with insulated pipes. Construction in Texas focuses on keeping the extreme summer heat out of homes, not the other way around. When temperatures fall near freezing Texans begin to drip water from their faucets to keep pipes from freezing.

## Texas Electric Grid

Toward the end of last week warnings that rolling blackouts may be necessary were issued because of the severe weather forecast. At different times between Sunday and Thursday millions of electricity users were without power as supply was not able to keep up with demand. Even now some are still without power. On Feb. 15, the Electric Reliability Council of Texas (ERCOT) issued an Energy Emergency Alert (EEA) Level 3, its highest alert, because of the supply and demand imbalance. The increase in energy costs was significant. The real-time cost of power rose to \$9,000 a mega-watt hour compared to a normal cost of \$70 a mega-watt hour, according to ERCOT. It has yet to be seen how this will impact the state and local governments' budgets, but it is likely to be expensive. As of Thursday, Feb. 18, the ERCOT CEO reported the system was stabilizing, but "Texas isn't out of the woods yet." A low and declining water supply was also reported on Wednesday. Some communities were ordered to boil their water before use and Texans were asked to stop dripping their taps in order to conserve water.

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The Dallas and north Dallas areas are still dealing with the results from 2019 hailstorms and tornados. The costs of those events are estimated at about \$1 billion each. The Houston area dealt with the aftermath of 2017's Hurricane Harvey, whose costs are estimated to be about \$125 billion.

## Select Disasters by Cost

Event	Year	Type	Cost (\$ Billion) Assuming Inflation (2017-2018)	Cost (\$ billion)
Hurricane Katrina	2005	Tropical cyclone	\$165	\$125
Hurricane Harvey	2017	Tropical cyclone	130	125
Hurricane Maria	2017	Tropical cyclone	95	91
Superstorm Sandy	2012	Tropical cyclone	76	69
Hurricane Irma	2017	Tropical cyclone	65	67
Deepwater Horizon Oil Spill (Gulf of Mexico)	2010	Oil Contamination	60-100	68-116
Hurricane Ike	2008	Tropical cyclone	38	43
California Wildfires	2018	Wildfire	25	24
Hurricane Irene	2011	Tropical cyclone	16	14
2019 Midwestern U.S. Floods	2019	Flood	3	3
Tornado Outbreak of May 2019	2019	Tornados	3	3
Minneapolis hailstorm	2017	Hail	3	3
Denver hailstorm	2017	Hail	2	2
North Texas Hailstorm	2019	Hail	1	1
North Texas Tornados	2019	Tornados	1	1

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Source: National Hurricane Center, National Centers for Environmental Information, Wikipedia, and HilltopSecurities.

U.S. state and local governments have been dealing with a significant amount of budget shortfalls since the outset of the COVID-19 outbreak. They have shed about

*Due to COVID, the Dallas and north Dallas areas are still dealing with the results from 2019 hailstorms and tornados.*

1.3 million jobs since COVID-19 began, which is about twice as many layoffs as we saw in the wake of the Great Recession. Revenue projections for the state of Texas are down slightly, but not nearly as bad as the end of last summer's forecast. Texas local governments are likely to have a more difficult time navigating the COVID-19 budget hurdles now that financial obstacles are likely to worsen given the developments over the last few days. It is very likely a significant amount of federal and state aid or relief is going to be needed in the wake of the Big Texas Freeze of 2021. However, we will not likely get word of aid amounts until a review of the damage can be accurately made by federal, state, and local officials. We think a conservative estimate of the overall cost could be \$25-50 billion.

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- [State Outlook Remains Negative; Direct Fiscal Relief Still Needed](#), February 5, 2021
- [U.S. COVID-19 "Spikes Like We Have Not Yet Seen" Could Be Coming; Sixth Phase Relief Status](#), February 1, 2021
- [Yellen Hearing: Supports Defeat of Pandemic, Loss of Govt. Jobs "Economic Malpractice"](#), January 19, 2021

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