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INVESTIGATIONS

'I lost my best friend': How Houston's winter storm went from wonderland to deadly disaster

Paul Takahashi, Marcy de Luna, James Osborne, Staff writers

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Marie D. De Jesús, Houston Chronicle / Staff photographer

This story is the second in our three-part ["Failures of Power"](#) series. Read [the first part here](#) and [the third part here](#).

Snow was in the forecast for Houston.

Lawrence Ibarra wasn't worried. He was looking forward to a snow day with his wife and 18-year-old son, watching TV while snuggled under blankets in his Aldine home.

Bill Magness, CEO of the Electric Reliability Council of Texas, wasn't worried either. The temperature was dropping and power demand was surging, but the state's electricity grid was handling it.

In Oak Forest, Mariam Manges was recovering from a mastectomy. The last thing on her mind was her electricity bill.

A few hours later, circumstances would change drastically and tragically for Ibarra, Manges and millions of other Texans as cascading power plant failures plunged one-third of the state into cold and darkness. Over four days in mid-February, power plants, utilities and regulators desperately struggled to restore power while families desperately struggled to keep warm, protect their homes and, in many cases, survive.

Texas' penchant for its hands off, go-it-alone power grid exposed the folly of its hubris. The purported energy capital of the world had none.

When it was over, nearly 200 Texans had died of exposure, carbon monoxide poisoning and other causes related to extended outages. Homes and businesses suffered billions of dollars in damage from frozen pipes. Power companies racked up billions of dollars in natural gas and electricity charges as prices skyrocketed.

Regulators assigned investigations, crews arrived and power companies filed for

ABOUT THE SERIES

Failures of Power

This series documents how 20 million Texans lost power in a deadly freeze after state lawmakers brushed aside a decade of warnings about the increasingly vulnerable electric grid.

'Collective amnesia': Texas politicians knowingly blew 3 chances to fix the failing power grid

'I lost my best friend': How Houston's winter storm went from wonderland to deadly disaster

Fixing Texas' unreliable power grid won't be cheap or easy. Can we trust politicians to get it done?

10 ways to fix the Texas power grid, according to experts

The collapse of Texas' power grid underscored the fragility of our modern civilization and how quickly it can unravel without the complex systems that connect, support and sustain it. The flick of a switch, the setting of a thermostat, the turning of a faucet can be more – much more – than conveniences.

maker.

He knew the drill: Wrap exposed pipes. Keep faucets trickling. Stock the fridge and pantry. Ibarra, 44, and his family were prepared to hunker down at home for a few days for the storm to pass.

As Valentine's Day wound down, they settled in for the night. Snow was starting to fall. They expected to wake up to a winter wonderland.

Tuesday, Feb. 9, 9 a.m. 66 degrees

Days earlier, meteorologists forecast a massive winter storm would hit the continental United States. The Arctic polar vortex, an area of low pressure and cold air spinning around the North Pole, was weakening, sending a blast of winter weather as far south as Texas.

The National Weather Service predicted the average temperature across Texas would drop to 8.7 degrees between Sunday and Tuesday, one of the coldest temperatures on record.

Magness addressed the coming storm briefly at the grid manager's virtual meeting. ERCOT, which is in charge of balancing electricity supply and demand on the state's grid, expected record power consumption as Texans turned up their thermostats, but Magness expected that there would be enough power.

Wednesday, Feb. 10, 5 p.m. 68 degrees

Across the street from Lawrence Ibarra's house, the phone rang at his childhood home. His 80-year-old father, Isaac, picked up. Isaac knew who was calling.

Every day without fail, Isaac's younger brother, Gilbert Rivera, would call – at least a half-dozen times. Gilbert, 60, had learning disabilities but lived a semi-independent life in his apartment near Hobby Airport. For the past 15 years, Isaac would check in on Gilbert a couple of times a week, doing his laundry, grabbing his favorite chicken soup from Chick-Fil-A, and sometimes cruising around the city in Isaac's Ford Explorer.

Despite their age difference, Isaac and Gilbert were close. After Isaac's wife died from kidney cancer in 2019, the brothers became even closer.

The banter on their daily calls was often about trivial things. Cracking jokes. Gilbert's favorite TV show, "Scooby-Doo." The latest movies. But for the two single men, the calls meant everything.

A memorial card in memory of Gilbert Rivera, who died of hypothermia after his apartment lost power during the Texas freeze.

Marie D. De Jesús, Houston Chronicle / Staff photographer

Thursday, Feb. 11. 62 degrees

Texas' power grid operates on a just-in-time electricity model, where power supplies are closely matched with demand. ERCOT relies on sophisticated weather and demand forecasts to manage the flow of power from power plant to customer. Unlike other states that mandate higher levels of excess power, ERCOT does not operate with a lot of spare power on the grid – by design.

ERCOT predicted power demand would spike to more than 70,000 megawatts on Sunday, a record for a Texas winter. In November, the agency had predicted peak

Texas is one of 16 states with a deregulated energy market, allowing consumers to buy electricity from hundreds of retail electricity providers instead of a single regulated utility. Retail power companies buy electricity on the wholesale market directly from power plant operators and sell it to customers. The electricity is distributed to customers by regulated utilities such as CenterPoint Energy.

About 70 percent of Texans have fixed-rate electricity contracts. The rest have variable-rate contracts, where the price of electricity fluctuates month to month or even minute-by-minute based on the wholesale market.

Retail power companies, facing the likelihood they would have to buy power at

Mariam Manges, 35, and her husband Fredrick Manges, 33, at their home in Oak Forest, Wednesday,

Texas. A sensor at a nuclear power plant in East Texas malfunctioned.

This could have been prevented. After a 2011 freeze led to rolling blackouts in Texas, federal authorities advised state regulators to weatherize power plants and



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INVESTIGATIONS

Fixing Texas' unreliable power grid won't be easy. Are politicians ready?

The problem that led to the massive failure of the Texas power system and an estimated 200 deaths across the state will be neither cheap nor easy to fix.

BY JAMES OSBORNE

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