Industry: Commercial Business

# FREEZE OUT THE COLD:

## KEEPING DELIVERIES MOVING WHEN THE GRID GOES DOWN

## Houston Distributing Company

### POWER NEED

Beginning Feb. 13, 2021, Winter Storm Uri monopolized the state of Texas with its fury and collateral damage.

The winter storm caused power grids to fail across the U.S., causing blackouts for over 5.2 million homes and businesses, the vast majority of which were in Texas – making it one of the largest blackout events in modern U.S. history and the costliest natural disaster in the recorded history of the Lone Star State.

As a result of the winter storm and a concurrent cold wave, power grids – unable to sustain the higher-than-normal energy and heating demand from residential and business customers – failed across Texas.

At the peak of the outages, at least 4.5 million Texas residents were left without electricity. The blackouts extended from hours to days in subfreezing temperatures.

One business affected by the storm was Houston Distributing Company. Established in 1963, it is located on a 27-acre campus in northwest Houston. With 400 employees, the beverage distributor operates a large fleet of local delivery and long-haul trucks. Local deliveries are made to convenience stores, grocery stores, bars, and restaurants. The distributor also makes long haul trips to Ft. Worth, Austin, and Shiner.

With a territory encompassing a large portion of Harris and Fort Bend counties, the company distributes more than 10 million cases of beer annually.

### SOLUTION

A Cat® 3512 diesel generator set provides backup power to a palletizing system to ensure it never goes down if utility power is lost. The automated palletizer – known as a Vertique System – is a critical part of the beverage distributing operation. The system is designed with either automatically or manually replenished pick faces that automatically discharge onto conveyors,




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which then feed high-speed layer palletizers. Once the pallets are built, they are automatically stretch wrapped and presented to forklift drivers in the exact order that the pallets should be loaded onto the truck for delivery.

The 1.5 MW genset also backs up power to the heaters and the majority of the HVAC system in the distributor's climate-controlled area.

Additionally, an automatic transfer switch will occasionally transfer power to the Cat genset to ride through short power brownouts on the utility grid.

### KEY STATISTICS

6 MW Total standby power capacity

<10 SECONDS
Automatic transfer to backup power

96 HOURS
Runtime supported by 50,000-gallon fuel storage system

Last Updated: November 2026

Houston Distributing acquired the diesel generator from Mustang Cat in 2016 with only 56 hours of operation on it.

"We needed a generator, and a lady at our Cat dealer found us one," recalls production manager Kenneth McGaughey. "The price was right where we needed it to be, so we snagged it and we've been happy with it ever since. I haven't needed much support from Mustang Cat, but every time I contact them, they're right on top of things and they give me all the help that I need."

The winter storm exposed another vulnerability at the distributor's corporate offices, which had no heat during the outage. Pending a load analysis, Houston Distributing plans to acquire another Cat generator set to provide backup power to that building.

"During the storm, the building was freezing up there," McGaughey says. "If we had brought in the majority of our staff to work, it would've been uncomfortable for everybody. We're working with Mustang Cat right now to acquire another generator. We just need that load analysis to find out what size we need."

## RESULTS

Due to the icy conditions on the roads, Houston Distributing was unable to deliver products for two days in the wake of the storm, McGaughey said.

"A couple of us were able to get to work to make sure things were secure and that our beer that was stored in ambient conditions didn't freeze," he said.

Continuous power is necessary to keep the malt beverage products at a consistent temperature and keep them from freezing. The distributor's freeze protection heaters require power to operate. This was especially important because, before the storm, Houston Distributing had acquired plenty of inventory to get ahead of the impending spring and early summer selling season.

Powering the automated loading process is critical to the distributor's operation. Salespeople in the field enter orders from iPads that are downloaded to a server. Once received, the orders are dispatched to the Vertique System that processes the data and builds a pallet specifically made for that order.

The automated palletizing system has short-term battery backup, but requires power at all times. Keeping the IT servers up is also critical, as it allows salespeople to enter orders, which are then dispatched, automatically palletized, and made ready for shipment to their final destination.

"So if we can keep those servers from shutting down, it's a major plus," McGaughey says. "Our salespeople out in the field need to be able to use their handhelds to punch in orders."

Clean drinking water was scarce during the crisis. Almost half the population of Texas lost access to running water as a result of the winter storm and the average Texan lost running water for 52 hours. During this same time frame, the average Texan with running water couldn't drink it for about 40 hours. Bottled water was in short supply.




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In response to the shortage, Houston Distributing loaded up 12 pallets of bottled water and delivered them to a local law enforcement agency for public distribution. President and CEO Bo Huggins rode along to present the delivery to the local constable's office.

"We had just brought in a new supplier, Zen Water, and we loaded up whatever we could fit in a truck – 10 to 12 pallets – and took it over to one of the local law enforcement agencies that was handing out water to the public," McGaughey said.

"We were just glad to be able to help out during what was a hard time for everybody. And having been through that experience, we plan to be prepared with more standby power if this ever happens again."

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