

What Texans Want You to Know About Power Outages

Do you remember mom saying, "I just want you to learn from my mistakes"? If we were wise we listened to those older and more experienced and were able to avoid some of the mistakes made by others. As we reflect on the past year, people I speak with are saying the same thing. They are now learning from their mistakes and urging us to do the same. What have Texans learned from their deep freeze?

To review: Winter storm Uri knocked out a third of Texas's electricity generating capacity. On Wednesday, February 17, 2021, almost 3 million Texans were without power, including a quarter of all homes in Dallas, and 1.4 million homes in the Houston metropolitan area. At the peak, over 5 million people in Texas were without power, some for more than 3 days. ERCOT, which operates the power grid that covers most of the state, said Texas was dangerously close to a worst-case scenario, "seconds and minutes away" from uncontrolled blackouts across the state lasting for months.

Water service was disrupted for more than 12 million people due to pipes freezing and bursting. More than 200,000 people in Texas live in areas where water systems were completely non-operational. On February 17th, residents of Austin were asked not to drip their faucets despite the risk of pipes freezing as the demand for water in the city was more than 2.5 times greater than normal. People in San Antonio were seen collecting water from the famous River Walk in trash cans. In other areas people with pools were chipping the ice from the pool to use for flushing toilets. We know of at least five church buildings, including two stake centers, that had burst pipes causing flooding in the buildings.

I spoke with several who endured the freeze and they had great insights and tips.

Sean said:

Disasters never occur at an ideal moment, don't expect them to happen with a warning.

Water was crucial. You need to have supplies to purify water. Some people had rainwater stored in 5,000-gallon tanks and no access to it because it had frozen. Others had 50-gallon drums they had never filled. South Austin was without water for four days. We learned foods can be cooked without water as they release the juices in them. We made several stews just from the liquid created from cooking the meat. We need to store more foods that are easy to make without water.

Our stake center (Church of Jesus Christ of Latter Day Saints church building) was scheduled to act as a warming center for those without power and no supplies or plans for staying warm. Unfortunately, a pipe burst and the building was flooded and unavailable to use.



At one apartment complex, residents were evacuated due to broken pipes. By the time the apartments could be inspected it was too late to salvage them and the entire complex was condemned with all the residents losing their homes.

There is a two-month lead time to get a plumber. Lowes and Home Depot are completely out of supplies needed to repair plumbing.

We had no power for 48 hours. We set up a tent in our bedroom for the kids to sleep in and we slept in our bed. In bed we could not warm up and realized the mattress we have is designed to keep you cool as you sleep. It was drawing our body heat. We placed quilts under us to help alleviate the problem.

We discovered we had no 9-volt batteries stored.

People were over-confident on the roads and there were many accidents. Texas is not equipped to plow streets or salt or sand them. All-wheel-drive vehicles were able to handle the snow and ice but others were not.

There was a run on the stores and gas stations leading up to the freeze and everything and everyone, was stressed. Monday the stores were closed. Tuesday the grocery store was open from 10 until 4 with long lines and limited purchases allowed.

In Austin, the largest consumer of power, water and natural gas is the semi-conductor industry. There were hundreds of millions of dollars lost in the industry with one company losing over 100 million dollars in production. We are seeing the effect of the freeze in other areas of the country due to this shortage of chips. The auto industry is unable to acquire chips needed in production, triggering plant closures and slowdowns. Rental car agencies are unable to purchase cars needed to replace fleet vehicles. Prices on rental cars have skyrocketed increasing to as much as \$300 a day.

Family and friends were in need of water. We realized the more we are prepared to meet our own needs the more we can step up and help. Being prepared ourselves gives us the ability to serve.

As an engineer involved in manufacturing there are endless protocols that can go wrong. If businesses and families do not have a plan, they will be reactive and not proactive. What went wrong for others and what could have made them better? Listening to others with more knowledge. Some people did not even read the instructions with their generators.

Advice? Everyone needs to write out a plan. There was definitely more anxiety with people who were without some basic needs. People who were cold and couldn't get warm enough were definitely at a loss as to what to do. Most were ok for 24-48 hours but concerned what they would do if they couldn't get water or if the snow filled tub ran dry to flush toilets. We are a part of a group in our neighborhood that passed around unneeded items. There is also a lot of information exchanged. Having a friendly group of neighbors was a boon to many.

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Having community support and relationships was a big component of preparedness. People seemed very ready to do what they could to help, sharing warm food, water and knowledge. That was encouraging to watch. Everyone needs a support group and a plan.

Note: Stephanie lives two hours away from Sean. This disaster was geographically massive!

Stephanie shared:

We wrapped pipes, brought in the potted plants and filled all our water containers. Even with this preparation we had a water pipe break in our attic. The pipe in the attic was unprotected and we did not even realize it was there. We discovered there was no insulation between the pipe and the roof. I don't know what we would have done if we hadn't had a pool. Check your attic for pipes.

Five families in our neighborhood had pipes burst. The on friend took down cabinets and found water behind them. Those with garages on the north side of the house had more pipes burst.

We only lost power for a day, but when we did we put the food from our refrigerator outside to keep it safe.

We needed more of a plan and so did our neighbors. They drained their pipes to protect them from freezing but turned the water back on too soon and they burst.

We lost 11 trees in our backyard.

My advice:

- Know where the water shut off valves are.
- Get a good generator and know how to hook it up.
- Know where all your water pipes are.
- Have lots of 100-hour candles.
- Have a way to cook. We were lucky we had a gas stove.
- Confine your family to a room to keep warm. We had a gas fireplace so we could keep that room relatively warm.
- Be organized enough to call the insurance agency immediately.
- Have several cases of drinking water on hand.
- Canned foods are the best choice for food storage, not dehydrated or freeze dried. If you need to eat those you may find they are gross.
- Keep the attic door or pull down stairs to the attic open to allow warm air up.
- Know how to use the things you have in new ways. We are all prepared for hurricanes but were not ready for a freeze or may have been but didn't understand how to use those resources.



Kathleen lives 45 minutes from Stephanie and 2 ½ hours from Sean.

Kathleen:

We understand the power grid in Texas so we were aware we could lose power. We checked to make sure the gas fireplace was working and planned to stay in that room. We had no power from Sunday night at 6 until Tuesday at 4. We lost power again for another 24 hours. It threw us for a loop.

We decided we could try to confine ourselves to the kitchen and living room area. We have tile floors and they were freezing cold. We set up mattresses in front of the gas fireplace for sleeping. After several hours I remembered a tip from Carolyn to hang a blanket across the opening between rooms to contain the heat. We did that and within a half hour the room had warmed up.

I washed the dishes but should have saved the water in the tank. One member of our ward was without water for three weeks. No one knew of the need. We need to be comfortable and able to ask for help and to talk about our needs.

We had winter clothes since we had just moved from a northern state. We had food and water stored. Our son was disappointed when things returned to normal. He thought it was "quite fun".

Because Texans are used to hurricane and power outages many have generators. Those who did not had temperatures in the low 40s in their homes. People realized this would be different than a hurricane and they were dreading the freeze and panicked over it on social media.

We all need to work on our level of preparedness.

Marea is 4 hours from Kathleen and 4 ½ from Sean and Stephanie. I tell you this so you can understand just how widespread a disaster can really be.

Marea shared:

This threw me for a loop. We never lost power because we live near a fire station and police station, but I kept waiting for it to go out. Even with power the temperatures in many homes was between 30 and 40 degrees. Many people were making flowerpot heaters.

We are used to getting hail here, so I wasn't too worried at first. We really can get baseball size hail.

Everything here was shut down. The hotels either had burst pipes or they were full. When the grocery stores opened again there were no cleaning supplies, milk, bread or toilet paper. It took a week to find the bread we normally eat. We had stocked up on food because of the pandemic so we were ok. On Friday when we heard the storm was coming, we stocked up on milk and it lasted the whole storm.

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There were many homes with frozen pipes. I was terrified we might be without water because much of our food storage is dehydrated, a mistake. In Forth Worth, nearby there was a boil water order.

Many people had generators but did not know how to use them properly. One family had a member on oxygen and without proper use of the generator burned down their home. Several homes were lost due to improper use of generators.

Even hospitals lost power and generators they had counted on for backup power. Jeeps were used to transport essential workers due to ice and snow on the roads. Standard cars were of little use and there were many accidents.

It didn't matter how much money people had everyone has a story. We now have an emergency preparedness person called at church.

Shelters were open but many did not allow pets and they required masks and social distancing.

Texas has tax free Emergency Preparedness Days and we will be taking advantage of that this year. (Wow! Way to go Texas!)

Let me end with a few comments of my own. We have heard some important things from those whose comments I have shared. Let's review a few.

Disasters do happen that we do not expect and never at an ideal moment. We know the San Francisco Bay area and Seattle are due for a big earthquake. We may not be prepared for a big one on the New Madrid fault affecting Illinois, Indiana, Missouri, Arkansas, Kentucky, Tennessee, Oklahoma, and Mississippi. The last quake on that fault happened in 1895 and rang church bells in Boston. Did you know that? If you live in these states, are you prepared? If a disaster happened once in your area, it can and will happen again. The last Texas freeze of this proportion was in both 1899 and 1933. The lowest temperatures recorded in Tulia, Texas in 1899 and Seminole, Texas in 1933, both in February, was -23 degrees F.

Always read the instructions when using new equipment such as a generator or cooking device. The directions will warn you of hazards. Read them.

Fill your water barrels and other containers now. Many of us have purchased containers and failed to fill them.

You cannot count on supplies after a disaster. Lowes, Home Depot and all the hardware type stores will sell out of supplies needed for repairs and restocking may take weeks or months. Work now to prevent problem by purchasing items needed for prevention and repairs. For example: Purchase tarps now to prevent more roof damage after a storm. Wrap pipes now that are inside your home and store items needed to wrap outside pipes and faucets when a storm is approaching.

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If you are going to move food outside during a power outage be sure to have a cooler and use ice or snow in it to maintain the temperature.

Learn how to shut off the water inside your home AND at the street. Also learn how to shut off the gas but never turn gas back on yourself. Call a professional or the fire department for help.

Texans are prepared for hurricanes and many of those same preparations could have been used during a power outage in winter. Your preparations can often be used for many emergencies if you know how. Learn to use what you have in a variety of ways. You do not need to purchase expensive equipment if you can think creatively about items you already own.

Do not rely on candles. Consider stocking up on glow sticks. They are much less dangerous if your disaster may include a gas leak. Glow sticks are inexpensive and safe around children and pets.

Call your insurance agent immediately, even at 2 in the morning. You will get an answering machine or voice mail, but your agent will return calls in the order received so get on the list early.

In a cold weather power outage keep the attic door opened and keep the doors to cabinets under sinks open to help warm pipes.

If you suspect a power outage may occur because a weather disaster is predicted wash your dishes and do the laundry ahead of time. Do not wait. A hurricane or rains that may cause flooding or a winter storm can all be anticipated days ahead. Fill everything you can with water before they occur and then rely on paper products until safe water is available. Always assume there will be a lack of clean water.

No matter the disaster toilet paper will be among the first things to sell out. We should all have learned the importance of extra TP in our storage.

Dehydrated foods are not the best option for food storage. They cannot be safely eaten without reconstituting.

The two most important lessons:

Have a way to communicate. Set up a texting group for your family and friends. You cannot be helped if no one knows there is a need, and you cannot help others if you are unaware. If you live in a place with frequent disaster, get a HAM radio license. Operators can relay messages to loved ones and first responders.

Most importantly, have a plan. Everyone I spoke with mentioned the need for a plan. Write it down. Consider the disasters that have happened in your area in the past two hundred years and plan for them. Create a binder with information for when the internet is not an option. Make a list of where equipment is located. Begin your plan today.