

# Lights Out and an Information Void?

*On February 11-14 if you found yourself without electricity, you were in good, although probably uncomfortable, company.*

Many times in a heavy weather event the ground is too saturated or unimproved for a bucket truck, so someone like WCEC Lineman Rusty Lawhorn undertakes the task the old tried and true way—by climbing.



**A**t peak, over 8,200 Wood County Electric Cooperative (WCEC) members were left without power, along with over 200,000 East Texans serviced by other cooperatives, Oncor and AEP SWEPCO. Predominantly, the outages were caused by the weight of snow on trees bending limbs, causing them to contact power lines and creating short circuits that blew fuses and transformers. There were also broken limbs that snapped—as well as some broken power poles. As the snow melted, many expected their power to come right back on. But when it didn't, they wanted answers.

In a typical outage, power is restored within a few hours, at most. But when there is a large amount of widespread damage over WCEC's nine-county system (or any electrical system), longer outage times cannot be avoided. Our line crews, along with contractors, must work long hours in unfavorable conditions to get the system repaired. And they must do it in a systematic and methodical way that SAFELY restores power.

One of the biggest complaints after a natural disaster and widespread power outage is the "information void" experienced. Members want to be able to: 1.) easily report their outage; 2.) learn what is causing it; and 3.) know when they can plan for their power to come back on. And it's frustrating when any one of these actions is unsatisfactory. Unfortunately, in outages of large magnitude, communications channels get clogged, and here's why.

## Outage Reporting

### Just a phone call away?

When your power goes off, the first thing you should do is call the cooperative and report it. However, when thousands of members are without power at once, many callers are simultaneously trying to telephone WCEC. One of the first barriers to completing a call is the number of lines actually coming into the Quitman region. WCEC does not control the telephone company's infrastructure, and this regional "hub" can handle only 800 simultaneous calls. So, when call volume exceeds that number, callers hear a busy signal. Also, it's important to remember that other businesses, government agencies and residential customers are all connecting to these open slots on their own business, thus reducing the number of openings. Once a caller does make it through the regional hub, the next challenge is to connect to one of the 16 open lines at WCEC. During high-volume times, we staff all of our phone banks around the clock, but at maximum there are about eight representatives at any one time who can take calls.

We also have a computerized phone system that automatically answers overflow calls and allows members to input outage information with their phones. This system has tremendous capability and immediately records outages, just as if you were speaking to a person. When members do get a busy signal, we ask for patience. Eventually the volume of calls will drop off, the hub traffic will lessen, and a phone line into the cooperative will open.

Do keep trying, because it's important for each member to report his or her own outage, rather than relying on

neighbors. Once multiple outages in a neighborhood are recorded, the information helps predict where on the miles of line the outage is, helping shorten restoration time. Also, in general, the outages affecting the largest numbers of people get addressed first. However, it is not helpful for any one member to call repeatedly. This does not prioritize their outage and only further clogs the system so their friends and neighbors can't connect.

At present, any huge investment to beef up the phone resources at WCEC to a higher call volume capability would not result in an effective use of money, since results would not increase phone capability in any meaningful way.

## Outage Cause

**Somebody should be able to tell me why, right?**

Our member service representatives (MSRs) who answer the phones, like those at other electricity providers, do not have detailed data on hand to tell each member affected in a large-scale outage what the exact cause of every outage is. The miles of electric distribution lines are not "smart." They don't send signals back to the office to indicate an exact cause or location. It's actually the MSRs' job to take as many calls as possible to record outages into our system, which in turn effectively helps dispatchers send line crews out to a location where they investigate and fix the problem.

In large-scale events, 16 to 20 line crews can be fanned out across our nine-county territory, each working on separate issues. Their time and attention is spent on diagnosing, repairing, and ultimately restoring power, instead of communicating to the office the cause of the outage. In many instances, such as the snowstorm, they will ride miles of line to determine which and how many repairs will be needed to restore a circuit or a line. For example, many meters on one circuit could be affected by a problem that is responsible for a large number of outages. After that repair, there could be further damage causing individual outages, which each in turn must be fixed. For safety, the full attention of the linemen is on getting the power on—not on calling the office with a step-by-step damage report. And unless the linemen were to report to the MSRs, who are busily recording outages, it's rare for an MSR to be able to tell a member specifically what is causing his or her power to be out.

## Outage Length

**So how long will it be?**

Unfortunately, in most large-scale outages, we cannot estimate or predict restoration time. As you've learned, crews get to a site and all of their efforts are spent in restoring power and quickly moving on to the next outage. Once



**WCEC Construction Foreman Wesley Price was the intrepid volunteer walking through swamp-like terrain in freezing weather to recover a downed line so the rest of the crew could restring it.**

dispatched, they ride the line to identify the problem. Then, even in the best circumstances, restoration times vary based on many factors like the exact type and location of the failure. For example, a line that falls down along a road is much easier to replace than one in a boggy area or in the middle of a pasture. Sometimes specialized equipment, like a swamp buggy, must be called in, or a property owner needs to be located because the entrance to a property is blocked by locks or a fence. Also, at times a right-of-way crew needs to be called to clear broken limbs or trees. If crews have been out for hours, they also may need to replenish the stock they carry on their trucks. And weather such as high winds, rain and snow, along with reduced light conditions, can slow progress. In times of widespread out-

ages, there are too many factors to easily predict restoration, because in basic terms, each job is unique and many times involves heavy construction work.

## When a big one happens, what's a member's role?

While the cooperative strives to provide uninterrupted service, circumstances beyond our control cause unplanned outages of varying duration, thus rendering it impossible to guarantee uninterrupted service. Therefore, it is imperative and incumbent upon each individual to make his or her own adequate backup plans for prolonged outages.

It's especially crucial for those with critical care issues, such as those dependent on supplemental oxygen or various lifesaving machines powered by electricity, to have a plan in place. These could include: backup battery power, use of a generator, or relocation to a site that can serve their individual needs.

Indicators that it could be some time (even days)

**WCEC Construction Foreman Harold Willis finds a line buried by snow and walks it out to prepare it for restringing.**



before all members have their power restored include the number of outages across our nine-county system and weather conditions during restoration. In the meantime, it's important that each household and business stay as informed as they can in order to make the best decisions for themselves.

Therefore, we suggest every household stay tuned in to local news by keeping fresh batteries on hand along with a battery-operated radio or TV to listen to media reports. Also, members at WCEC can use their handheld mobile devices or laptops to check WCEC's website, which will be continuously updated with the most accurate information we can give. There's also access to a real-time outage report on the left side of the home page, which shows all current outages. That's all found at [www.wcec.org](http://www.wcec.org).

## Special Request to Members

### Can you help us?

When power does go out, it's important for members to turn off their electric heating/cooling units. All other appliances should also be turned off, with the exception of one light that will signal power restoration. This is an important action because when the linemen finally do get the power restored, all the heating/cooling systems and appliances at every home coming on all at once cause a huge drain. When this happens, it can mimic a fault causing the power to shut down again. Many members have mentioned this phenomenon of power coming on for a short amount of time only to go right back off. This is a sign that a crew is in the area working to restore the power, but the load is too big to restore at once. The crew then must spend extra time sectionalizing the line to restore smaller amounts bit by bit. Members can help restoration efforts by turning off heating/cooling units and other appliances at the time of power loss. Then, as power is restored,



**WCEC Lineman Jason Cobb climbs a pole in rural territory as he helps a crew restore power in the aftermath of the February snowstorm. The challenge, in addition to getting the line back up, was recovering the line from a bog and getting men and equipment through thick woods to get to the line. On the ground, from left, are, John Pruden, Mike Zeigler and Will Leake.**

members can stagger the times they turn them back on.

Another action members can take all of the time is to honor the right-of-way for power lines. Nothing should ever be built or planted directly under power lines. Placing anything in the right-of-way is an extremely dangerous practice. If a live line falls, it can energize whatever is underneath it, set fire to it, or even cause electrocution.

When planning feeding stations for animals, placing outbuildings or fences, adding on to a house, performing any construction, or planting any tree or shrub, first consider where power lines are. The legal easement or area that should remain free of any structures or vegetation is the area directly under the line and 15 feet to either side of that point. This is not only a safety issue, but obstacles on the easement also slow maintenance, repair and restoration of power in the event of outages.

## Wrapping It Up

### We are all happy when your lights come back on!

After a major outage, there's not a happier bunch of people than us when all of our members' lights come back on. Because if there's been a big outage, it means we've been working long hours, including on weekends and nights, to restore power. And since all employees must live in the WCEC service territory, it also means many of them have been going without power at their homes too. We know electricity powers your necessities and conveniences; and in times of widespread outages, it takes a lot of good old-fashioned work to get all power restored.

We know it's frustrating when members have trouble calling us during an outage, or when they do, we don't have all of the answers they are seeking. But rest assured, we're working as hard as we can to get everybody's lights on as soon as possible and also to communicate what we do know.

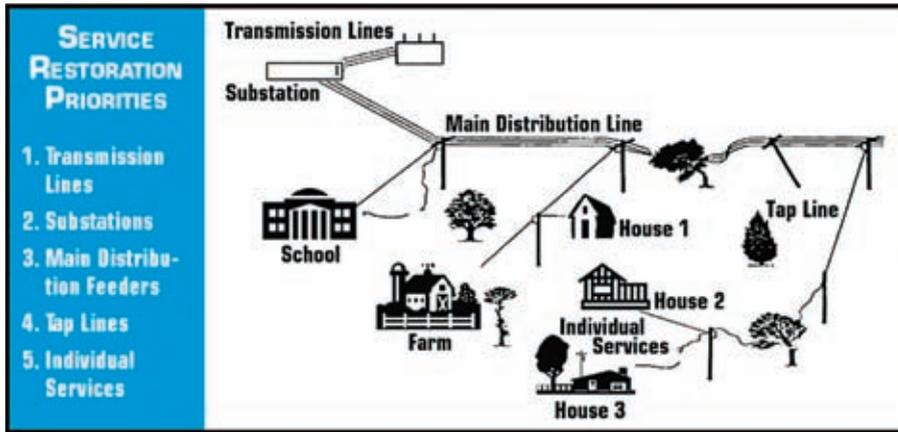


## Remember: Update Your Info

### Current personal information is important when your power is out

Did you know we have a computerized outage reporting system? We do, but it's only as good as the information it contains.

When you call to report an outage, it knows you by one of two things: Your telephone number or your account number. When the lights go out, many people don't know their account number by memory, so if they get the automated system they'll type in their phone number. It's an issue though if our system does not have the same number a member is inputting. A member may have moved or gotten a new phone number and forgotten to update their information with us. Without the right number, the computer can't log the outage. So, if you've changed your phone number lately, give us a call at (903) 763-2203 and let us update your records. It may save you some frustration later.



## What Should Be in Your Power Outage Emergency Kit?

Every household and business should have a power outage emergency kit readily available when the need arises. These kits come in especially handy during times of prolonged outages as seen in ice and snowstorms, or periods of high wind and rain, or tornado events. The items that go in that kit are naturally dictated by each household's electrical needs, but some basics follow:

1. A battery-operated or hand-crank radio.
2. A non-cordless telephone or a cell phone. Portable telephones do not function without electricity.
3. Battery-operated lanterns and flashlights. Emergency lights that are plugged into outlets and automatically come on when power goes off are also helpful.
4. A manual can opener.
5. Stored containers of drinkable water in your freezer. If power is out for any length of time, the ice blocks help the temperature stay cold, and if it melts, it can be used as drinking water if need be.
6. A grill or propane camping stove for OUTDOOR cooking.
7. Means to stay warm like extra blankets, a fire pit, or kerosene heater.
8. Generators properly ventilated outside.
9. Alternate means to power medical equipment, such as an emergency power backup system.
10. Plenty of the appropriate batteries for the battery-operated equipment you wish to power.

## How Power Is Restored

When there's an outage, we don't have a switch back at the office that magically restores power. It's a pretty complex process and requires boots on the ground at specific locations. Many times it's the "luck of the draw" on whose power gets restored first, based on many factors such as where the crews are when a call comes in, priorities based on safety, and the numbers of outages in a particular area. Then, efficiencies come into play. If a crew is already in a particular region, they will likely address all issues there before driving to a location a distance away. It's also important to remember that in a case of widespread outages, the situation is always changing, but there are some general methods used.

1. The first priority is the safety of the public, our members, and our employees. So, in restoration, any condition that undermines safety, such as downed power lines, gets our attention. Following that, priority is given to restoring critical-care facilities and emergency response operations and hospitals, a priority for the well-being of our community.

2. Ideally, in large outages, the method of operation is to first repair parts of the system that will restore the greatest number of people at one time. Many times, whatever that problem is needs to be repaired first anyway before restoration efforts on individuals' outages would even work. (Think of electricity as a pipeline. If a pipe is broken at the source, water can't reach the other end.) To make these repairs, we usually do it in the following order: Repair the substation, then major three-phase lines, and then follow with circuits that power neighborhoods.

3. Finally, we get to individual service. At this stage progress comes much more slowly because the causes of the outages vary. To be clear, even though individual outages are a lower priority, crews are generally assigned to work an area, starting at the main issue and then working outward to get all power restored to an area before leaving.

Unfortunately, when a heavy weather event causes widespread outages across the entire system, it's chaotic. There are many outages happening at different times caused by different things. Also, sometimes meters that get power restored later experience another outage. In other words, restoration can be a moving target.

We always stand prepared. When we expect a storm is coming, we immediately put crews on standby and we put extra contract crews on reserve. We open and prepare our emergency material stock and do whatever else we can in advance. We are as ready as we can be.