

THE LIGHTS ARE OFF AND YOU'RE AT HOME

We've all experienced a spring storm. It rolls in slowly...the sky darkening to an ominous green, grey clouds heavy with rain oozing across the sky. Suddenly you're startled by a flash of lightning followed by a booming clap of thunder as the storm unleashes itself, blowing tree branches and dumping torrential rain. And then with a flicker – your lights go out! Just one fallen tree branch can knock out not only your lights but also those of hundreds or even thousands of homes in Sam Houston Electric's service area!

continued on page 18

New technology allows Sam Houston EC



The outage is reported by a Sam Houston EC member.



Member Connection records the outage information.



Information is fed into the Outage Management System (OMS).



OMS groups call data and predicts the source of the outage.

continued from page 17

Getting our members' lights back on after an extensive power outage can be a daunting task. After all, we serve over 48,000 members in parts of ten counties, many of whom live in remote, heavily wooded, rural areas. As much as we enjoy the beauty of the Piney Woods, finding and fixing electrical equipment damaged by a fallen tree, in the midst of a raging storm, can present quite a challenge for Sam Houston EC line technicians.

To combat the consequences of Mother Nature's inevitable fury, Sam Houston EC has stepped up our behind-the-scenes efforts to restore members' power as quickly as possible during an outage. How? By implementing a state-of-the-art Outage Management System.

Taking Power Recovery to the Next Level

At Sam Houston EC, we're always looking for ways to improve the level of service to our members. Of course, minimizing the amount of time our members are without power is an important part of that. The Member Connection, our automated phone system, is already in place and is equipped to handle hundreds, even thousands of member calls during outage situations. To streamline the

outage recovery process even further, we've implemented a new Outage Management System (OMS) that allows us to identify and locate outages very quickly. The new system also utilizes satellite technology to help us pinpoint the location of our crews in the field, which increases efficiency and safety.

The key to the outage recovery process is locating the problem as quickly as possible. But finding a hidden treasure, or the source of an outage in this case, requires a good map. To create this map, Sam Houston Electric spent the last two years aggressively plotting our entire electric system – from power lines and poles down to each and every one of our 48,000 meters – into a computerized Global Positioning Satellite (GPS) mapping system. Jared Wennermark, Sam Houston EC Chief Technology Officer, says the success of the OMS system is dependent entirely upon the accuracy of the map. "You have to map it right, or obviously it can't predict where the problem is," he said.

Today, every Sam Houston EC truck is equipped with a GPS unit and a laptop computer directly linked to computer-aided dispatch software in the Dispatch Department. Rosemary Stephens, Sam Houston EC Mobile Data Dispatch Supervisor, pointed out that because of this technology, dispatchers know at all times where every Sam Houston EC line technician is, enabling dispatchers to be more specific about the status of the outage recovery process.

C to speed up outage recovery process.



Information is then transmitted from the OMS to computer-aided dispatch (CAD) computers.

CAD identifies, via GPS, Sam Houston EC truck(s) closest to the "trouble" area.

CAD sends job "ticket" to Sam Houston EC line technician's laptop computer.

"Instead of saying, 'He's on his way,' we can inform our Member Services Representatives that he's arrived at the location, or wherever he is in the process," she said.

A Well-oiled Machine

So how does a member's outage report phone call travel through this system? After the Member Connection or Member Services Representative records the information taken over the phone into the customer's account, the information is electronically routed to the Outage Management System. OMS sorts and groups outage reports according to location. As the system analyzes the reports, OMS is able to predict the source of the problem, such as a blown fuse or a circuit breaker with no electric current running through it.

Jared Wennermark explained that the system is designed to do in seconds what could take a team of dispatchers sorting paper tickets 30 minutes or more, depending on the severity of the outage. "As more calls come in, the system is able to intelligently group them and to identify those outages that are major and those that are individual cases," he explained. "Imagine an interstate highway, which feeds smaller highways, then farm roads, county roads, etc. If that intersate is blocked, traffic can't flow to the other roads. That's

how electric lines work. The OMS system compiles outage information as it is reported and helps us to allocate our resources in the most efficient way possible. That saves time and gets the lights on sooner."

Bob Wilson, Sam Houston EC Mobile Data Dispatch Supervisor, says OMS gives the Co-op the added capability during a storm of seeing simultaneously how many incidents there are at one time – exactly how many different feeders and therefore how many customers are affected. "Crew-wise, this is important because we can quickly determine whether we have the manpower to restore power in a timely manner or whether we'll need outside contractors, or even help from another co-op."

Once the "trouble" source has been identified, OMS transfers the information to the Co-op's computer-aided dispatch (CAD) software, which identifies through the GPS system which line technician is closest to the trouble area. CAD then routes the electronic outage "ticket" to that line technician's laptop computer in his truck. The lineman reviews the work order and accepts the job, which sends an electronic acceptance notification back to Dispatch. When the line technician physically locates the source of the trouble predicted by OMS, he repairs the equipment and sends another message from his computer to Dispatch indicating the job is complete. All of this work is done without printing a single piece of paper and oftentimes without dispatchers or line



Line technician acknowledges job "ticket" and heads to site of trouble.



Repair work is completed—lights are back on!



Line technician sends work report, via laptop computer, back to CAD.

Let Sam Houston EC enlighten you.

As an electric provider, Sam Houston Electric is committed to educating the community. The Co-op's communications team makes frequent presentations to area civic organizations, including Rotary Clubs, Lions Clubs, senior citizens' groups, and schools. Presentation topics include everything from power restoration to deregulation, and make learning about electric topics both interesting and fun. Contact Keith Stapleton, Sam Houston EC Chief Services Officer, at 1-800-458-0381 to schedule a time for the Co-op to visit your organization.



technicians even speaking directly to each other! It's a vast improvement from the way Sam Houston Electric responded to outages before this technology became available.

We've Come a Long Way, Baby

At Sam Houston Electric the outage recovery process used to be an entirely manual system. Rosemary Stephens remembers what it was like when she joined the Co-op. "When I first came 31 years ago, we had a big book of all the members' accounts, where you'd look up the line and pole and grid number, and you'd write it on two pieces of paper. You'd keep one and hand-deliver one to Dispatch, who would then give it to the lineman."

Prior to the implementation of OMS, outage information was recorded and submitted to Dispatch on printed tickets, which were sorted and grouped by hand. "A ticket would print out for each customer that called in," recalls Wennermark. "Dispatchers would put each ticket in a stack and sort them according to location. In a storm situation, you'd have a table with hundreds, if not thousands of little pieces of paper in stacks. And then you'd look at where the biggest stack was and say, 'Okay, the problem must be here.'"

Sam Houston Electric encountered the perfect opportunity to test the accuracy of the GPS maps and reliability of the new

system when storms hit just before Christmas 2002 and New Year's Day. As calls came in, the Co-op not only fed the outage information into the OMS, but also ran the old paper ticket system at the same time. "We discovered that the computer predicted accurately during both storms what we would have predicted manually, but did it much faster," Wennermark reported.

We Rely on You

Bottom line is, Sam Houston Electric has embraced today's state-of-the-art technology to improve outage recovery time for our members. But that's only half of the story. The outage recovery process is a cooperative effort. Ultimately we rely on the information we get from you, our members, to help us respond to power outages. So by all means, contact us when you have an outage rather than assume someone else already has. Hearing from each person will enable us to better pinpoint the problem.

The outage reporting system is our tool for identifying the extent of the problems and areas that have been hardest hit by an outage; a tool that efficiently processes the information our members give us. And while we are committed to working around the clock as necessary to restore your power, we also realize it takes an enormous amount of patience while you and others wait "in the dark" for the lights to come back on – and for that patience, we thank YOU, our members.

SAFETY MATTERS

Downed Lines Are Downright Dangerous!



**Don't go near a downed power line under any
circumstance. Call 911 for help immediately.**

A storm is brewing: Are you prepared?



While advanced technologies allow meteorologists to predict severe weather conditions, nobody knows just how much damage a big storm can cause to poles, power lines and electrical equipment on our system. Even small storms can pack a powerful punch. So the lesson is to be prepared. Storm preparedness starts with the following tips:

Assemble an emergency kit and get prepared:

- ✓ Keep a list of emergency numbers, along with your Sam Houston EC account number, near your phone (and be sure you have a corded phone).
- ✓ Have a battery-powered radio on hand. If you have a radio alarm clock with a battery backup, test it periodically and make sure it's equipped with a fresh battery.
- ✓ Store flashlights and extra batteries where they can be easily reached by everyone in your family.
- ✓ Set aside a supply of candles, candlesticks and matches.
- ✓ Know the location of your circuit breakers or fuse box so you can switch the power off and on manually if you need to.
- ✓ Set refrigerator and freezer controls to coldest temperatures. If there's an outage, food will last longer. Keep doors closed as much as possible to prevent cold air loss – and don't forget to reset the controls once power is restored.
- ✓ Fill several clean containers with water for drinking.
- ✓ Have a manual can-opener ready and an emergency supply of non-perishable food.
- ✓ If your lights dim or flicker, it could mean your electric service is about to be interrupted. Be sure to unplug sensitive electronic equipment such as computers which could be damaged by an electrical surge.

Dial-up & Tune-in: What to do when your lights go out.



When electric service to Sam Houston EC members is interrupted, our trained line technicians' first priority is to restore your power as quickly as possible. But there are steps you can take in the event of an outage to help us help you.

Report the outage.

You can help us pinpoint the exact location of the outage and restore power more quickly by calling the 24-hour Member Connection automated phone service line in your area. Never assume someone else has reported the problem; however, please report your power outage only once so your neighbors and others can get through to us.

24-Hour Member Connection
Coldspring: 936-653-5400
Livingston: 936-327-5711
Woodville: 409-283-8251
Long Distance: 1-800-458-0381

Our automated phone system is easy to use and is the most efficient way for us to process the thousands of calls we receive during outage situations. Simply press 1 to report an outage and input your information as prompted using your touchtone telephone. Your automated report will be

entered into our system immediately. You may also press 0 at any time during the call if you feel it is necessary to speak to a Member Services Representative.

Tune-in to local TV and radio stations.

In the event of a major power outage such as one caused by a tornado, hurricane or ice storm, Sam Houston Electric members should tune-in to local TV and radio stations for updates regarding the outage. While we may not know the answers to all your questions, we will do our best to keep you informed about what areas are affected and the expected duration of the outage. After you've reported the outage, tune-in to the broadcast media partner(s) in your area for updated information.

At Sam Houston Electric, we are constantly looking for ways to improve our service to our members, especially during outage situations. Because problems vary, so does the time it takes to get your electricity back on. We appreciate your patience during these situations as we do everything in our power to restore yours.



Emergency Broadcast Resources

Beaumont

Television:

KBMT-TV ABC 12
KBTU-TV NBC 4
KFDM-TV CBS 6

Radio:

KIOC-FM 106.1
KKMY-FM 104.5
KLVI-AM 560
KYKR-FM 95.1

Conroe

Radio:

KVST-FM 103.7

Diboll

Radio:

KAFX-FM 95.5

Houston

Television:

KHOU-TV CBS 11
KPRC-TV NBC 2
KRIV-TV FOX 26
KTRK-TV ABC 13

Radio:

KIKK-AM 650
KIKK-FM 95.7
KILT-AM 610
KILT-FM 100.3
KTRH-AM 740

Huntsville

Radio:

KUST-FM 99.7

Jasper

Radio:

KTXJ-AM 1350
KWYX-FM 102.7

Liberty/Dayton

Radio:

KSHN-FM 99.9

Livingston

Radio:

KETX-FM 92.3

Lufkin

Television:

KFXL-TV FOX 30
KTRE-TV ABC 9

Radio:

KRBA-AM 1340
KSFA-AM 860
KTBQ-FM 107.7
KYKS-FM 105.1

Silsbee

Radio:

KSET-AM 1300

Woodville

Radio:

KWUD-AM 1490

Sam Houston EC Woodville Branch Manager Honored for Community Service



Sam Houston ECs Woodville Branch Manager, Bill Towley, (left), accepts the Tyler County Chamber of Commerce award for 2002 Honorary Citizen of the Year, presented by Jack Whitmire, 2001 award recipient.

Sam Houston EC extends enthusiastic congratulations to Woodville Branch Manager, Bill Townley, who was named 2002 Honorary Citizen of the Year by the Tyler County Chamber of Commerce at the annual awards banquet in January. A native of Deep East Texas, Townley was recognized for the many years of strong leadership and tireless dedication he has provided to the community.

Don Shaw, Woodville City Manager and President of the Tyler County Chamber of Commerce commented, "Bill is respected throughout our community and is well deserving of this prestigious award. We are proud to recognize him and are thankful for the countless contributions he's made to our community."

Most recently, Bill served as Immediate Past President of the Tyler County Chamber of Commerce and has been a Board Director since 1999. He is current President of the Lions Club and served on the Board of Directors of the Woodville Boys & Girls Club in 2001.

Nominations for Honorary Citizen of the Year are submitted each fall by residents of Tyler County and evaluated by a three-person committee, chaired by the previous year's award recipient. Selection is made on the basis of whom, over a number of years, has given unselfishly of himself/herself, and thereby has substantially improved the economic and civic climate of Tyler County.

Bill joined Sam Houston Electric in 1978 after graduating from Sam Houston State University. His service and dedication to the Co-op led to his promotion to Woodville Branch Manager in 1990. We are proud to have such a dedicated citizen as part of our team. Congratulations, Bill!

ReMember This

Notifying the Co-op of life-sustaining equipment could save your life.

Even with today's up-to-date weather forecasting technology, there's no stopping Mother Nature from sometimes causing widespread power outages. If you, a family member, a tenant, or anyone in your home depends upon electric-powered life support equipment, it is extremely important that you notify Sam Houston Electric Cooperative. With the proper information in your account file, Sam Houston EC can give you or your loved one top priority in the power restoration process following an outage or notify those members of planned service interruptions due to scheduled power line and equipment maintenance. Call a Sam Houston EC Member Services Representative at 1-800-458-0381 or notify us online at www.samhouston.net.

An electric generator may be necessary during severe weather.

Severe storms can cause severe damage, leaving you without power for extended periods of time, despite our best efforts to restore power as quickly as possible. During these situations, members who depend on electricity for life-sustaining equipment will want to have a portable electric generator available for emergency use. Make sure your generator has a double-throw switch, which will safely transfer your power supply from our lines to the generator. This switch not only protects our line technicians as they work on your lines, but also prevents costly damage to your generator once power is restored.

