

Conquering The Ice

Cooperatives in nearby states were the first to send help with crews from Iowa, Nebraska, Minnesota and North Dakota.

by Brenda Kleinjan

AS THE LIGHTS CAME ON AND THE DEBRIS WAS cleared, South Dakota's electric cooperatives emerged from the worst ice storm to hit the state and took stock.

The storm, which began Nov. 27, caused damage at 19 of 29 distribution cooperatives in South Dakota in addition to causing damage at cooperatives in Minnesota, Nebraska and North Dakota. East River Electric Power Cooperative counted the storm as the worst in its 60-plus year history.

South Dakota's preliminary damage estimates show the state's electric cooperatives incurred more than \$20 million of damage – nearly double of the widespread ice storm that gripped the state in 1995 and 10 times the damage caused in an April 2000 ice storm in the Black Hills.

The problems began on the weekend after Thanksgiving. As the rain turned to ice and temperatures continued a downward spiral, the severity of the storm – its wide-reaching breadth and its severity – started to be realized.

Cooperatives across the state began experiencing

outages. Call centers lit up as thousands of calls began pouring in.

Home-grown crews trudged into the biting cold, trying to restore power. Soon the futility of their efforts became apparent. As one co-op manager noted in those early hours, they were fighting a losing battle.

As dawn Monday, Nov. 28, emerged cooperatives from Martin, S.D., to Wheaton, Minn., and from Ipswich, S.D., to Tyler, Minn., took stock of their damages. Some were able to make repairs quickly as their damage was minimal. Others realized they needed help. Lots of it.

By midday Monday, with much of the state locked in no travel advisories and much of South Dakota's two main Interstates closed, linemen from cooperatives unaffected by the storm began packing their gear. They consulted maps and atlases, determining how they could circumvent the closed roads and begin their journey east where their help was going to be needed. Their exact destination was subject to change, but they knew they were



going to help their colleagues out. And while they didn't know exactly what they would find when they arrived, they knew it wouldn't be good.

And, they knew they had many 14- to 18-hour work days ahead of them in their outdoor office of sub-freezing temperatures and dangerous wind chills. What they didn't know was exactly how much damage the ice-encrusted landscape would contain. Early counts indicated 5,000 poles toppled in the storm. Two weeks later, that count more than doubled.

That landscape, once punctuated by orderly rows of poles and parallel lines of conductor, now sat twisted and broken. Mile after mile, ice weighted down the lines, toppling steel poles and splintering massive wood poles into pieces resembling broken toothpicks. That destruction left more than 21,000 South Dakota rural electric cooperative members without power at one point.

The linemen and other cooperative employees knew better than anyone the job ahead of them was going to be huge. Their hands would stiffen from the cold, their faces would freeze. Their entire bodies would scream in exhaustion of pulling mile after mile of ice-encased line from under snow drifts.

As the days continued to go by, additional workers were brought in from further a field. Cooperatives in nearby states were the first to send help with crews from Iowa, Nebraska, Minnesota and North Dakota among the first to arrive. Then came crews from Wisconsin, Missouri, Kansas, Montana, Wyoming and Colorado. They all came with a mission: to get the job done.

By the weekend, several thousand rural electric members had power restored, but thousands remained without the resource many have come to take for granted. The number of line workers attacking the damage swelled to more than 850 as the 260 workers at the cooperatives affected by the storm were joined by more than 600 others from cooperatives, electric contractors and power line schools in an 11-state area. The outside workers began arriving Nov. 29, some driving for 14 hours to help restore power.

In South Dakota, every cooperative that wasn't devastated by the storm sent workers and supplies to those cooperatives that were hit. And, when a cooperative finished its repairs, many would send help on down the road to restore power at neighboring cooperatives.

Estimates of the storm indicate that approximately 9,000 miles of power line were impacted in the eastern part of South Dakota. If put in one continuous line, it would create a "Z" extending from Seattle, Wash., to Boston, Mass., to San Diego, Calif., to Miami, Fla.

Along those miles lay more than 12,000 broken poles and more than \$20 million of damage.

As the days without power mounted, frustrations increased, at times members would take out that anger on the very people working to restore power. Many, many more expressed their appreciation for the work being done.

At cooperative headquarters throughout the region, office staff answered phone calls, pin-pointed outage areas, made and delivered meals to crews and made sure that the supplies needed for the repairs arrived in time. And, in many cases,

these offices were just as cold and dark as their members' homes as many offices were without power and relying on back-up generators.

While some co-op members endured two weeks of being without power, the work is not yet done. Repairs to the infrastructure will continue for the months and years ahead as crews work to restore a system that took decades to build.

As the ice storm of November 2005 goes down in the record books, it will not soon be removed from our memories.



PHOTO BY: T.W. SCHOENING/EAST RIVER ELECTRIC



PHOTO BY: MARTY MCGRANE/SOUK VALLEY ENERGY

Above: A crew member from Southwest Iowa REC applies grounding lines to a power line near Tyndall, S.D. More than 9,000 miles of power line in South Dakota were impacted by the ice storm.

Top: Even steel was no match for the weight created by ice clinging to power lines. Here, steel transmission lines fold in half under the weight of the ice near Rush Lake in northeastern South Dakota.

Opposite Page: THE COOPERATIVE SPIRIT... Electric cooperative crews from all over the region flocked to eastern South Dakota and western Minnesota to help local electric distribution systems rebuilt after a massive wind and ice storm knocked down thousands of power poles and miles of electrical conductor. In the photo, attaching a crossarm to a replacement power pole are employees of Heartland Power Cooperative in Iowa and Capital Rural Electric Cooperative in North Dakota. The crews are helping to rebuild the estimated 80 power poles destroyed by ice along a Lake Region Electric power line south of Webster in early December. *Photo by T.W. Schoening/East River Electric*

Cover: For a two-week period in late November and early December, the devastation caused to electric cooperative power lines across South Dakota could be seen in the aftermath of a Nov. 27-Nov. 28 ice and wind storm that toppled more than 12,000 poles and caused an estimated \$20 million in damage. *Photo by Tom Green/Northern Electric, Lake Region Electric and FEM Electric*