

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of an Investigation of)	
Union Electric Company, d/b/a)	Case No. EO-2008-0218
AmerenUE's Storm Preparation and)	
Restoration Efforts)	

**FINAL REPORT OF STAFF INVESTIGATION OF
THE JANUARY 2009 SOUTHEAST MISSOURI ICE STORM**

COMES NOW the Staff of the Missouri Public Service Commission (Staff) and for its
Final Report Of Staff Investigation Of The January 2009 Southeast Missouri Ice Storm,
respectfully states to the Missouri Public Service Commission (Commission) as follows:

1. On April 30, 2009, the Commission issued its *Order Directing Staff To File An Additional Report (Order)*. Staff was directed to investigate Union Electric Company, d/b/a AmerenUE's (AmerenUE or Company) preparation and response improvements implemented after the 2007 ice storm, by evaluating the Company's response during the January 2009 ice storm. Staff was directed to file its report of investigation on or before September 1, 2009.
2. Attached is Staff's Memorandum entitled *Missouri Public Service Commission Staff's Report on Electric Utility Restoration Efforts for the January 2009 Ice Storm Which Severely Affected Southeast Missouri (Staff's Report)*.
3. Attachment A is a graph that shows the percentage of AmerenUE, local cooperative and municipal customers restored by day. Not only did AmerenUE restore service faster, the Company provided expertise and help to other electric providers.
4. On March 26, 2009, the Staff requested the Company provide detailed information about its experiences during this particular storm to the Director of Utility Operations. On April 14, 2009, the Company provided the response labeled as Attachment B. The

response included a Storm Restoration Summary and performance data from the Company's Customer Contact Center.

5. The Commission's *Order* also directed Staff to investigate Entergy Corporation (Entergy), an out of state corporation that owns transmission lines that cross through Missouri. Attachment C is a letter from the State of Missouri Emergency Management Agency, describing Entergy's performance during the outage. *Staff's Report* is in direct contrast to SEMA's observations of Entergy's responsiveness in Southeast Missouri. The summary of Staff's investigation of Entergy is included on pages five (5), six (6), and seven (7).
6. This report is Staff's fifth storm report involving AmerenUE's restoration efforts in the last five (5) years. In summary, Staff's overall conclusion is that AmerenUE has applied the lessons it learned from previous storm restoration efforts to this ice storm, evidenced by the faster restoration times.

WHEREFORE, the Staff respectfully files its *Final Report Of Staff Investigation Of The January 2009 Southeast Missouri Ice Storm* with the Commission.

Respectfully submitted,

/s/ Jennifer Hernandez

Jennifer Hernandez

Legal Counsel

Missouri Bar No. 59814

Attorney for Staff of the
Missouri Public Service Commission

P.O. Box 360

Jefferson City, MO 65102

(573) 751-8706 (Telephone)

(573)-751-9285 (Fax)

jennifer.hernandez@psc.mo.gov

Certificate of Service

I hereby certify that copies of the foregoing have been mailed, hand-delivered, e-mailed or transmitted by facsimile to all counsel and parties of record this 15th day of June, 2009.

/s/ Jennifer Hernandez

Report on
AmerenUE's Storm Outage Restoration
Following the Ice Storm
On January 26 – 28, 2009



Case No. EO-2008-0218
Missouri Public Service Commission Staff
June 15, 2009

Missouri Public Service Commission Staff's Report on Electric Utility Restoration Efforts for the January 2009 Ice Storm Which Severely Affected Southeast Missouri

Executive Summary

This report is in response to the Commission's Order of April 30, 2009 in Case No. EO-2008-0218, In the Matter of an Investigation of Union Electric Company, d/b/a AmerenUE's (AmerenUE or Company) Storm Preparation and Restoration Efforts. The Order directed the Missouri Public Service Commission Staff (Staff) to investigate the effectiveness of Union Electric Company, d/b/a AmerenUE's storm preparation and power restoration efforts following the January 2009 ice storm in Southeast Missouri. The Order also directed the Staff to investigate the conduct of Entergy Arkansas, Inc. (Entergy) following the January 2009 ice storm in Southeast Missouri.

This storm report is the Staff's fifth storm report involving AmerenUE's restoration efforts in the last 5 years. AmerenUE applied the lessons it learned from previous storm restoration efforts in response to this ice storm and brought its customers up faster than the rural electric cooperatives and municipal utilities. Attachment A shows the percentage of customers restored for these utilities by day. Not only did AmerenUE restore service faster, the Company provided expertise and help to other electric providers. During the restoration process and in the months that followed, the Staff observed numerous examples of individuals, municipalities, utilities, and other government organizations assisting each other during this emergency event.

While restoration to Missouri utilities from Entergy was hampered by communication problems and therefore was slower than the response from Missouri utilities, Staff found that the communities are finding ways to prevent this problem in future events.

January 26-28, 2009 Ice Storm

A Canadian cold front with a lot of Gulf moisture pushed into Missouri on Monday, January 26, 2009, bringing with it snow, sleet and freezing rain. These initial conditions were concentrated in Southeast Missouri, with sleet that also went north to Central and Eastern Missouri. The winter storm continued with another round of snow,

sleet and freezing rain all day Tuesday and into Wednesday. The icy conditions made highway travel hazardous, with numerous accidents reported. Over two and one-half inches of ice covered most of the southeast portion of the state. Heavy ice accumulation loading on lines caused over 3,800 AmerenUE transmission and distribution poles to break. (One measure of the severity of the damage to an electric utility system is the number of poles replaced per 1000 outages. For this ice storm, over 100 poles per 1000 outages was experienced from this ice storm. In contrast, the summer storm of 2006, which affected approximately 645,000 AmerenUE customers, had a 2 pole per 1000 outages average.)

On Monday, January 26, 2009, the National Weather Service predicted the strong possibility of a major ice storm for the southern portion of Missouri. AmerenUE began mobilizing its contractor resources and line crews from the Missouri Valley Division to the Cape Girardeau area. By Monday evening, the Company had staged approximately 250 workers, one Mobile Command Center and three Storm Material Trailers in Southern Missouri in preparation for anticipated restoration activities.

The State Emergency Management Agency (SEMA) activated its Emergency Operations Center (EOC) on January 27, 2009. The first Situation Report was issued by SEMA on January 27, 2009 and Situation Reports continued to be issued through February 18, 2009.

The Company provided detailed information about its experiences during this particular storm to the Director of Utility Operations in a letter dated April 14, 2009. The letter was in response to Staff's request on March 26, 2009, for information related to AmerenUE's storm restoration efforts. This information included a Storm Restoration Summary and performance data from the Company's Customer Contact Center. The complete response from the Company is attached as Attachment B.

In addition to the detailed information pertaining to its storm restoration efforts, the Staff also asked the Company to comment on the progress of its implementation of the recommendations contained in the KEMA Report. In January 2007, AmerenUE management engaged an outside consulting firm, KEMA, to conduct a study of the adequacy of the Company's ability to prepare for and respond to severe weather events. On January 11, 2008, the Staff was provided with a copy of the KEMA Report as well as

the Company's responses to the recommendations. The Staff has been provided with updates on the Company's progress in the past. This was another opportunity to update progress made on these KEMA recommendations and to determine whether this ice storm event had an effect upon the pending projects initiated by the Company in response to the KEMA report. This information was also included in the Company's response to the Director of Utility Operations.

In addition to AmerenUE, the storm also devastated facilities belonging to the municipal and electric cooperative systems in Southeastern Missouri and Northern Arkansas, and transmission line operators Entergy and Southwestern Power Administration (SWPA), which deliver power to some municipalities in Southeastern Missouri.

AmerenUE Restoration Efforts

Over the last seven years, the Company has experienced repeated severe weather occurrences that caused major outages over wide sections of their service area. The Staff has completed reports evaluating the Company's restoration efforts occurring in June 2002, July 2004, August 2005, July 2006, and December 2007. AmerenUE has applied its past experiences to improve its storm response procedures.

Several issues within this severe weather event presented AmerenUE with challenges that it had not encountered previously. The intensity and geographical concentration of the outages was more extensive than what the Company had experienced in the past. While the Company has detailed plans that address the provision of food, fuel and housing for its workers, the widespread damage of this outage and the extreme amount of ice accumulation brought unique conditions regarding an absolute unavailability of resources within the area. Typically, AmerenUE is able to find some vendors in the immediate area that still have electricity, but in the aftermath of this storm, there were whole counties without power. Vendors were utilized from outside of the stricken area to provide food, housing and fuel necessary to maintain the work crews.

The severity of the damage to the sub-transmission and distribution systems required a concentration of resources specifically assigned to substations and circuits restoration. AmerenUE's restoration plan is structured to restore the greatest number of

customers in the minimum period of time. Typically, the sub-transmission system is designed to withstand more severe conditions than the distribution system and therefore the damage to the sub-transmission is not as severe. Often, a relatively minor repair can be made to the sub-transmission system that literally restores power to thousands of customers. However, since the line loadings from this ice storm was well beyond the design limits, the majority of the 34.5 KV sub-transmission system sustained severe damage and had to be repaired first.

AmerenUE had a total of approximately 4000 individuals engaged during the restoration effort. This included 2400 linemen, 555 tree trimming personnel, 161 field checkers, and several hundred people providing logistical support and supervision.

AmerenUE noted that it utilized diesel generators at two substations to restore service to two communities until AmerenUE could restore transmission to the communities. This strategy has not been used by AmerenUE in previous storms. The 34.5 KV circuits supplying these two communities were severely damaged and took days to completely repair. The use of these generators allowed the Company to provide service to those customers more quickly and to apply its resources in other areas while the sub-transmission was being rebuilt for these communities.

Staff Contact With County Officials

Staff contacted individuals responsible for emergency operations in several of the small towns devastated by the storm to discuss their experiences and look for lessons learned that may improve response to future storms. The specific individuals contacted were:

- Randy Baker - City Clerk of Campbell
- David McClarty - New Madrid County Emergency Operations Coordinator (EOC)
- Dennis “Rowdy” Walker - Portageville, Water & Wastewater Operator and former Alderman

All three individuals were willing to discuss their experiences during the outages. When questioned about the response of the electric utilities, they were very

complimentary of AmerenUE's efforts and its willingness to assist the other providers, where possible, in restoring customers. The Electric Cooperatives' participation in the emergency management process, especially in response to issues raised during the daily SEMA conference calls, was also noted positively.

The Staff was impressed with the planning efforts taken by these counties and their quick action to handle issues on their own. In some cases, such as in the City of Campbell, city officials actually had developed prior arrangements with vendors to provide them generators in the event of such disasters. When the weather forecast was confirmed, a call was made to the vendor and city officials transported generators from Illinois to Campbell. These generators were used to keep the water and sewer systems running during the storm and then these generators were shared with the neighboring town of Gideon to supply power to their water treatment systems.

Through Staff's work at the State Emergency Operation Center and calls to Commissioner Davis during the restoration process, it is the Staff's impression that there was a lack of communication with and a delay in restoration to cities in Missouri that receive energy through Entergy transmission and sub-transmission lines. In initial contacts, Entergy stated that it did not have any lines in or through Missouri. Subsequent calls with Entergy from the Staff, State Emergency Operation Center management and local cooperatives resulted in conflicting commitments of who would make repairs and when such repairs would be completed. This was in direct contrast to a copy of the letter dated April 27, 2009 that the Missouri State Emergency Management Agency (SEMA) sent to Entergy regarding their "outstanding assistance". This letter is Attachment C to this report. In the letter, Paul Parmenter, SEMA Director, praised Entergy crews for going "above and beyond normal disaster duties for residents of Portageville in southern Missouri." The letter went on to state that "[Entergy] staff isolated and removed the line so that treatment operations could resume at the sewage plant. The actions of [Entergy] staff directly benefited hundreds of Portageville citizens." Since this letter was in direct contrast to Staff's observations of Entergy's responsiveness in southeast Missouri, Staff specifically talked with the three individuals listed above regarding the service they received from Entergy. None of the city or county officials that the Staff contacted had knowledge of the letter.

David McClarty of New Madrid County and Dennis Walker of Portageville confirmed that an Entergy line fell across facilities of the sewer plant in Portageville, Missouri. Staff's understanding is this line ties Entergy's system to a substation near Associated Electric Cooperative's New Madrid Generating Plant. Although this line does not serve Portageville, its location delayed efforts to make repairs to the sewer plant. Once effective communication with Entergy was established, which took several days, these officials stated that Entergy removal of the line occurred in a reasonable amount of time. Even so, Portageville and Campbell have since made changes to prevent similar problems in the future. When the line was repaired it was relocated to ensure that it did not present the same danger in the future with respect to contact with sewer facilities.

It should also be noted that AmerenUE is the electric service provider for Portageville. These officials believed that AmerenUE's restoration efforts were noteworthy.

Electricity was, and currently is, transmitted to the City of Campbell through an Entergy line. Mr. Baker, the City Clerk, told the Staff that when the City was purchasing wholesale electricity from Entergy, Entergy provided acceptable maintenance to the line into Campbell. A couple of years ago the long-term contract for wholesale electricity that Campbell had with Entergy ended. Entergy informed Campbell that it would no longer provide wholesale electricity to Campbell, so Campbell began purchasing energy through Missouri Public Utility Alliance. However, the only line to deliver energy into town was still an Entergy line. When Campbell experienced problems, Entergy would fix the line but Mr. Baker believed Entergy was no longer providing any ongoing maintenance to the line.

Campbell began looking for other alternatives for provision of electricity and the citizens of Campbell in April 2009 approved, through the ballot, selling the City's distribution to the local rural electric cooperative, Pemiscot-Dunklin Electric Cooperative (Pemiscot-Dunklin). This transfer will be presented to the Commission for its approval in the near future. Tentative plans are that Pemiscot-Dunklin will build a substation in Campbell and bring two lines into the city. Until the substation is built, Pemiscot-Dunklin will bring in a mobile substation. While this will allow two lines of service into Campbell, which should improve the reliability of electricity into Campbell, this

would not have necessarily resulted in quicker restoration to the city in the January 2009 ice storm. Pemiscot-Dunklin was especially hit hard by the ice storm. One hundred percent of the customers in Pemiscot-Dunklin's service territory were without power in the early days of the ice storm.

The Staff contacted the other investor owned electric utilities (IOUs) with outages during the ice storm that affected Missouri customers and it appears that Entergy is the only IOU that received a letter from SEMA similar to the April 27 letter. While Entergy's movement of their transmission line to avoid coming in future contact with Portageville's sewer system is noteworthy, the letter from SEMA appears to only refer to the "outstanding assistance" at Portageville in the days after the storm. Based on the Staff's experiences during the restoration process and the feedback received from various city and county emergency management personnel directly involved in the restoration process, AmerenUE was the IOU singled out for outstanding assistance in the days after the storm. (The Empire District Electric Cooperative had several hundred customers that were affected but the overall severity of storm damage in its service territory was not comparable to the devastation in Southeast Missouri.)

Just as utilities are expected to improve their storm response based on lessons learned, the same is true for the Staff. This storm highlighted the fact that some Missouri electric customers are served, directly or indirectly, by Arkansas electric utilities and that communication with these utilities is important to these customers. Specifically, the Carroll Electric Cooperative Corporation (Carroll) serves some customers in Southwest Missouri. In addition, some customers along the Missouri-Arkansas border receive power from Entergy's sub-transmission and distribution lines, as a result of an agreement between AmerenUE's and Entergy's predecessor. In addition, this storm highlighted the fact that Missouri citizens can be impacted by lines that do not even serve them but are owned by Arkansas utilities. The Staff has identified contacts for Entergy, Carroll, and SWPA as well as the Arkansas Public Service Commission. The Staff hopes to cultivate the relationship with these entities to the benefit of both Missouri and Arkansas customers.