# BEFORE THE PUBLIC SERVICE COMMISSION STATE OF MISSOURI

In the Matter of an Investigation of Union Electric ) Company d/b/a AmerenUE's Storm Preparation and ) Restoration Efforts in Eastern Missouri.

Case No. EO-2007-0037

#### **STAFF'S REPORT**

**COMES NOW** the Staff of the Missouri Public Service Commission ("Staff") and, in response to the Commission's *Order Directing Staff to Investigate Union Electric Company d/b/a AmerenUE and Setting Intervention Deadline*, issued and effective July 27, 2006, makes this report regarding the Staff's investigation:

1. The Public Service Commission ("Commission") initiated this case as the result of "hundreds of thousands of households and businesses [being] without electricity for a prolonged period of time in the aftermath of storms on July 19 and July 21, 2006."

2. The Commission directed Staff to expeditiously investigate the storm preparedness and restoration efforts in Eastern Missouri of Union Electric Company d/b/a AmerenUE ("AmerenUE"), Southwestern Bell Telephone Company, LP d/b/a AT&T Missouri and Missouri-American Water Company and any other regulated utility "whose activities have an impact on storm restoration efforts."

3. In ordered paragraph 3 of its *Order Directing Staff to Investigate Union Electric Company d/b/a AmerenUE and Setting Intervention Deadline* the Commission ordered, "The Staff of the Commission shall file an investigation report no later than August 27, 2006." 4. In the attached Appendix A, the Staff reports specific topics it is investigating,

what actions it has taken thus far in pursuing its investigation, and what further actions it plans to

take. The specific topics the Staff is investigating follow:

A) Storms / Arrival Times / Outages by Day - Morning & Evening (w/maps)
B) Crew Needs Determination
C) Outage Tracking & Field Dispatch Coordination
D) Prioritization of Outage Repairs
E) Call Center Operations During Storm
F) Internet Linkage Problems Early On
G) Consumer Services Specific Issues/Observations
H) Medical Needs Customer Registration and Notifications
I) Contact w/City Officials & Agencies
J) Vegetation Management
K) Grid Reliability Standards Issues & Infrastructure Maintenance
L) Other Utility Outages
M) Evaluation of Restoration Effort & Recommendations

5. At this time the Staff has responded to inquiries made by customers, state and local government elected officials, Commissioners, attended State Emergency Management Agency (SEMA) / Emergency Operations Center (EOC) meetings, and facilitated communications between individuals and organizations impacted by the outage event following the storms of July 19 and 21, 2006. Shortly after the Commission established this case, the Staff contacted AmerenUE and provided it with a list of information the Staff needs from AmerenUE for the Staff's investigation. The Staff had a comprehensive meeting with AmerenUE on August 23, 2006, to obtain, review, and discuss the information received from AmerenUE.

6. In the attached Appendix B, the Staff reports, in a project scheduling format, the Staff's specific storm restoration review activities the Staff plans to do, and the anticipated duration of each. The Staff anticipates it will take 12 weeks for the Staff to file a report on the Staff's completed investigation; therefore, the Staff proposes to file its completed investigation

report in this case by November 17, 2006, assuming the Staff receives timely cooperation from AmerenUE and others.

7. The Staff has received AmerenUE's responses to the Staff's first round of questions and is now beginning to evaluate this data. While waiting for this data from AmerenUE, the Staff reviewed information collected through contacting the National Weather Service, other state commissions and storm restoration procedures from a number of different sources. The Staff is now analyzing the data AmerenUE has provided, and is beginning to contact other utilities and impacted agencies such as SEMA, the St. Louis City EOC, St. Louis County EOC and the City of Potosi to collect data from them. The Staff expects that collection of data from these meetings and information from public hearings will result in the Staff making additional queries of AmerenUE, and perhaps others; therefore, the Staff has allowed in its work schedule time for a second round of Staff questions and responses. Following receipt of responses to Staff's second round of questions and data requests, the Staff anticipates it will be able to conclude its review, develop recommendations and prepare its report.

8. In Staff's Appendix B the Staff has also identified electric case activities the Staff believes will impact the availability, in particular, of the engineering Staff that will be conducting this review. In light of the amount of work associated with this review and other Commission regulatory matters to be addressed during the relevant timeframe, Staff believes completing this effort will take approximately 12 weeks.

**WHEREFORE**, the Staff respectfully files this report with the Commission and advises the Commission the Staff anticipates the Staff will file its Investigation Report by November 17, 2006.

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Respectfully submitted,

/s/ Nathan Williams\_

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# **Certificate of Service**

I hereby certify that copies of the foregoing have been mailed, hand-delivered, transmitted by facsimile or electronically mailed to all counsel of record this 25<sup>th</sup> day of August 2006.

<u>/s/ Nathan Williams</u> Nathan Williams

#### Review of AmerenUE 2006 Storm Restoration Effort <u>Topics & Outline of Activities</u>

1) Storms / Arrival Times / Outages by Day - Morning & Evening (w/maps)

Staff has been in contact with the National Weather Service (NWS) and will be in further discussions with them regarding the severity of the storms that impacted the St. Louis area on July 19<sup>th</sup> and 21<sup>st</sup>. Staff is examining how severe these storms were compared to typical thunderstorms and if this was a contributor to the severity of the outage. Staff will also discuss with AmerenUE the operation of the Outage Analysis System (OAS) during and following these storms. Staff is not currently aware of any problems with this system during these outages but will review information reporting during each of the days of the outage and look into any data that appears to be inconsistent.

 Crew Needs Determination Mutual Assistance Agreements Search for Outside Crews When Crews Called In Any Delays in Crew Availability/Arrivals How Long Crews Were Kept

Staff will review how quickly AmerenUE recognized the severity of this outage and how quickly they sought outside assistance. The timing of requests for different levels of assistance will also be looked into as this outage was the result of two major storms. Staff will also study if AmerenUE did not ask some utilities for help or turned down any offers for assistance and if so, why. Staff is aware that some utilities were initially hesitant to release crews due to extremely hot weather causing peak demands on their systems and the forecasted potential for additional severe weather. These factors will be looked at in conjunction with AmerenUE's Mutual Assistance Agreements to assess if they played a significant role in extending the timeframe of restoration in this outage.

### 3) Outage Tracking & Field Dispatch Coordination

In past reviews, Staff has thoroughly reviewed how Ameren's OAS system works and how AmerenUE uses this system to dispatch its crews. In the current review, Staff will again look at how they dispatch crews using this system and how they establish what type of crews need to be at a particular site as well as how they determine the next site each crew is dispatched to when they are done with their current job.

# Prioritization of Outage Repairs Priority Treatment Groups (fire, medical, police, water, sewer, etc...) Prioritization of Remaining Customers

In past storm restoration reviews a number of issues have come up with prioritization of restoration of service. This topic boils down to two issues; 1) which customers receive service restoration priority, and 2) which customers groups are left and do not receive priority service but instead are restored on the basis of restoring the greatest number of customers in the least amount of time. In the most recent outage cooling centers, water pumping stations and care facilities all received priority service but it was not always clear that AmerenUE knew if these customers were out of service until they were called. Staff will review the current priority of service procedures and look into how AmerenUE tracks these customers in terms of when they loose service and how crews are dispatched to give them priority restoration service.

5) Call Center Operations During Storm Customers Calling In To Report Outages (Telco Problems?) Overflow Provisions Estimated Restoration Times Customers Wanting Estimate But Not Being Provided Automated Call Back Functions "You should receive service by X O'Clock" "You should have service on in your area at this time"

Staff has thoroughly looked into the topics listed above in prior storm restoration investigations and will do so again in this storm restoration review. Staff is aware of problems with customer call capability early on in this outage. Staff will look into how this situation occurred, how it was fixed, and what steps are being taken to prevent recurrence in future major outages. This portion of Staff's review may bring to light issues outside of AmerenUE's planning/infrastructure support process and any of these observations will be looked into by Staff.

#### 6) Internet Linkage Problems

Staff will look into internet problems early on in outage, how this situation occurred, how it was fixed, and what steps are being taken to prevent recurrence in future major outages. This portion of Staff's review may bring to light issues outside of AmerenUE's planning/infrastructure support process and any of these observations will be looked into by Staff.

#### 7) Consumer Services Specific Issues/Observations

During this major outage Staff received numerous public comments and complaints. Some of these comments and complaints noted issues that Staff will discuss with AmerenUE to gather information on what happened and why. Any issues identified in this review will be looked into by Staff.

#### 8) Medical Needs Customer Registration and Notifications

In past reviews, Staff has looked into AmerenUE's Medical Needs Customer registration process and notifications. In this outage Staff is not aware of significant issues in this area but will confirm that past recommendations in this area have been implemented.

#### 9) Contact w/City Officials & Agencies

Staff participated in the SEMA/EOC phone calls during this outage. Staff will follow-up with St. Louis City EOC, St. Louis County EOC, City of Potosi and SEMA and bring into its review any issues noted by these organizations and any of their recommendations for how future outage events could be handled better. Staff will also review AmerenUE's normal process for maintaining contact list with officials and agencies in preparation for future outages.

10) Vegetation Management Status of Trimming, Still on Track? Any Need to Accelerate Trim Schedule? Any Need to Consider Additional Programs? Any Special Contracts/Initiatives Years for Transmission vs. Distribution Service Lines in Yards Types of Trees & Clearance Distances Replacement of Problem Trees / Incentives (Ornamentals)

Staff has thoroughly reviewed vegetation management in past reviews and will examine the topics listed above again in this ongoing review. Staff will again confirm that the agreement in place is being honored in terms of circuit trim schedules vs commitments. Staff will examine potential changes to agreement to shorten compliance schedule and possible programs to reduce future trimming needs. Staff will also again look at types of vegetation contributing to majority of damage in recent storms and factors contributing to this situation. Factors contributing to extent of damage like backyard routing vs street side routing and overhead vs buried circuits will be considered.

(11) Grid Reliability Standards Issues & Infrastructure Maintenance

Staff will review AmerenUE's Pole Inspection & Treatment Program, semi-annual "Worst Performing Circuits" and weekly outage reports process. Staff will review how AmerenUE's district engineers receive this information and how they develop their list for what maintenance work needs to be done and how consistently AmerenUE has funded this work. Staff will also review what steps AmerenUE has taken to improve the reliability of their power delivery system through installation of sectionalizing devices, reclosers, fuses and loop schemes. Their efforts to improve reliability will be looked at in Missouri and a review of differences in procedures in Missouri vs Illinois will be examined.

#### 12) Other Utility Outages

Staff is aware of a number of other utility outages as a result of this power outage and will review these outages and assess if these outages were reasonable given the circumstances or if additional measures should be taken in advance of future outages to reduce the likelihood of recurrence of these outages of other utility services.

13) Evaluation of Restoration Effort & Recommendations

Staff will compile the information received through the meetings and data requests responses described above. Staff will also review compliance of AmerenUE with previous recommendations from past reports. Staff will then summarize its concerns and provide its recommendations on how best to deal with these concerns. Staff is anticipating that the report's observations and recommendations will be used as a basis for a roundtable with all the electric utilities in the state to discuss best practices and other ideas for the future.

#### Work Done Thus Far:

# Storm Restoration Period, July 19th Through July 28th

Staff was responding to e-mails and phone calls from customers, state and local government elected officials, Commissioners, attending SEMA/EOC meetings and facilitating communications between parties where possible. Observing some of the problems and developing a list of items for review after storm restoration effort completed.

## July 29<sup>th</sup> Through Today

In addition to completing work not completed during storm restoration period and completing and filing testimony in several cases, Staff has been in contact with AmerenUE providing them with lists of information items needed for Staff review and discussing timeframes for when information would be available. Staff has also been in contact with AmerenUE regarding additional information needs as Staff has been made aware of additional issues and possible contributors to the severity of this outage. Staff received AmerenUE's responses from its first series of questions on August 23<sup>rd</sup>. Staff has also been discussing need to coordinate review with water and telecommunications providers and local emergency operations personnel in Potosi, St. Louis City and St. Louis County and how best to do this. National Weather Service has already been contacted and a significant amount of information is now available on the characteristics of these storms and other recent storms in Missouri. Staff has also been conducting independent review of recent storm restoration efforts of other utilities, other state commissions and equipment used to reduce customer outages (i.e. sectionalizing devices, recloser/fuse coordination and loop schemes).

	Week												
AmerenUE Storm Restoration Review Activity	8/21 - 8/25	8/28 - 9/1	9/4 - 9/8	9/11 - 9/15	9/18 - 9/22	9/25 - 9/29	10/2 - 10/5	10/9 - 10/13	10/16 - 10/20	10/23 - 10/27	10/30 - 11/3	11/6 - 11/10	11/13 - 11/17
Receive First Round Data Responses from AmerenUE													
Staff Analysis of Data				_									
Discovery With MAWC, AT&T, Charter, MSD, H&HS, City St. Louis EOC, County St. Louis EOC, City of Potos													
Public Meetings													
Staff Develop & Submit Second Round of Questions													
AmerenUE Turn Around on Responses													
Staff Analysis of Data & Development of Recommendations													
Write Report													
		ER-2006-0314 Settlement Conf	ER-2006-0315 Hearings	ER-2006-0315 Hearings					ER-2006-0314 Hearings	ER-2006-0314 Hearings			

Appendix B