BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of an Investigation of)	
The Empire District Electric Company's)	Case No. EO-2008-0215
Storm Preparation and Restoration Efforts)	

INITIAL REPORT OF STAFF

COMES NOW the Staff of the Missouri Public Service Commission (Commission) and for its Initial Report states as follows:

- 1. On January 2, 2008, the Commission issued its *Order Directing Staff To Investigate The Empire District Electric Company's Storm Preparation And Restoration Efforts And Setting An Intervention Deadline* (Order). In its Order, the Commission directed Staff to investigate the effectiveness of The Empire District Electric Company's (Empire or Company) storm preparation and power restoration efforts regarding the ice storms of December 2007 and to file an initial report regarding the results of its investigation no later than April 3, 2008. Accordingly, the Staff submits its Initial Report to the Commission, attached hereto as Appendix A and incorporated by reference herein.
- 2. The Commission's Order set a deadline of January 22, 2008 for any interested party to file an application to intervene in this matter. No party has requested intervention.
- 3. On January 8, 2008, the Staff initiated its investigation in a Letter sent to the Company signed by the Commission's Executive Director. Staff's Letter (attached hereto as Appendix B, with supporting Attachment 1, and incorporated by reference), requested certain

information from the Company and outlined how Staff intends to proceed in its investigation of twelve separate operational areas. (See Attachment 1 to Staff's Letter to Company).

4. Staff's Initial Report is a broad overview and summary of the progress made to

date using information on twelve operational areas provided by the Company. As this Report is

a work in progress, the Staff provides no conclusions or recommendations at this time. Staff will

provide these in its Final Report to be filed no later than June 17, 2008.

5. Empire provided information in response to Staff's Letter on January 18, 25, and

February 15, and 25, 2008. On March 7, 2008, members of Staff and Empire conducted a four

hour teleconference to discuss the progress of the investigation.

6. The Staff has also prepared a summary of all public comments received so far by

the Commission related to Empire in this case. (See Appendix C "Outage Customer Comment

Summary Sheet" attached hereto and incorporated by reference herein.)

WHEREFORE, in accordance with the Commission's Order, the Staff submits its Initial

Report.

Respectfully submitted,

/s/ Robert S. Berlin

Robert S. Berlin Senior Counsel

Missouri Bar No. 51709

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Missouri Public Service Commission

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Certificate of Service

I hereby certify that copies of the foregoing have been mailed, hand-delivered, or transmitted by facsimile or electronic mail to all counsel of record this 3rd day of April 2008.

/s/ Robert S. Berlin

The Empire District Electric Company Initial Report of Storm Preparation and Restoration Efforts Case No. EO-2008-0215

1) Weather Conditions and Severity of Storm

Between Saturday evening and Wednesday morning of December 8-12, 2007, several waves of precipitation affected Missouri bringing up to an inch of freezing rain accumulation as well as up to two inches of sleet in parts of central and northeast Missouri. Storms struck various parts of Missouri over a four day period from December 8-12, 2007.

Staff contacted Dr. Patrick Guinan, Missouri State Climatologist, and researched National Oceanic and Atmospheric Association (NOAA)/National Weather Service (NWS) internet sites regarding these ice storms in Missouri.

Dr. Guinan puts the severity of these storms in perspective in the January 2008 issue of the Missouri Ruralist:

Several weeks ago Missouri experienced its second major ice storm in less than a year with a large part of the state cocooned in ice. The storm reached historical proportions over parts of northwestern Missouri, where some communities in Buchanan, Andrew, Holt, Atchison and Nodaway counties reported ice as thick as 1-inch on trees, power lines, vehicles and just about everything that was exposed to the elements.

Winter storms that deposit a glaze of 0.75 to 1-inch of ice are rare and have about a 1 in 50 year recurrence interval for any given location in Missouri. Historical accounts of major ice storms of this magnitude in Missouri indicate the rarity of these events. According to archived storm reports from the National Climatic Data Center, National Weather Service reports, and various press clippings, only a handful of storms of this magnitude have impacted Missouri.¹

The winter storm that affected the Empire District Electric Company (EDE or Company) service area started impacting customer service on Sunday, December 9, 2007.² The active storm conditions (that affected EDE) ended by mid-day on Wednesday, December 12. Approximately 65,000 EDE customers were affected. For comparison purposes, the

¹ Dr. Guinan compared these December 2007 storms in scope to those which occurred in 1848, 1924, 1930, 1937, 1957, 1987, and 2002.

² All dates in this summary will be 2007 unless otherwise noted.

January 2007 winter storm experienced in the EDE service territory affected approximately 85,000 customers. Staff has gathered information from the NWS and other sources and will provide a more detailed description of that information in its final report.

2) Storm Restoration Planning Process / Company Response

All Missouri customers that could take service were restored by Wednesday,
December 19. Staff is reviewing how quickly EDE recognized the severity of this winter storm
and the methodologies it utilized for requesting outside assistance. The timing of the requests
and types of assistance requested is being evaluated. Staff is aware that other areas of the
midwestern United States had been affected by a winter storm just two days earlier (more than
Missouri utilities were affected). The availability of outside support was impacted by this earlier
storm.

3) Outage Tracking and Field Dispatch Coordination

EDE's Outage Management System (OMS) receives inputs from multiple sources and is utilized to consolidate the information for more efficient utilization by the field crews. Staff is reviewing how EDE's OMS was utilized to manage the outage restoration activities and crew dispatching.

4) Prioritization of Outage Repairs

Staff is reviewing the prioritization process used by EDE in the restoration effort. Staff will also address how these priorities were utilized by crew dispatching personnel in its final report. Communications with prioritized customers are also being reviewed.

5) Call Center Operations

Customers can report outages by contacting EDE's Call Centers through a toll-free number, as well as a local number in Joplin. The Joplin Call Center operates on a 24/7 basis, while the Ozark Call Center generally operates 7:00 a.m. to 7:30 p.m. Monday through Friday. If an agent is available, the call goes directly to the agent. If no agents are available, the call goes to the Interactive Voice Response (IVR) unit where customers can choose from various

options, including reporting an outage or emergency, accessing the automated phone directory, reviewing automated account information, or for any other reason.

The Company utilized employees from other departments to assist in the Call Center during the outage restoration period. Staff is examining Call Center staffing and the volume of calls that EDE received during the December 2007 outage, as compared to the January 2007 outage. Staff is also analyzing EDE's Call Center performance indicators, including the average speed of answer (ASA) and the abandoned call rate (ACR) during EDE's outages.

EDE's OMS gives an estimated repair time based on the time of day and day of the week; however, when a large storm hits, there is no estimate of restoration time provided. EDE indicated that calls were not made to confirm restoration during the recent ice storm outages. Staff is reviewing the OMS system, outage restoration estimates, and reports of inconsistent messages being provided to customers during the ice storm outages.

6) Web Site

During the December outage, EDE added information to its empiredistrict.com web site including a box on the front page noting the number of customers without service in its entire service territory. The number of outages was updated at least twice daily. EDE stated that the outage number provided by the OMS is based on raw data, and it must be interpreted.

In addition to outage numbers, EDE added an explanation of the restoration process and priorities on its web site, as well as a drawing of a meter base with notes as to the repair responsibility of the customer before service can be restored. EDE currently has no outage map on its web site, but is in the process of developing one. Staff is further evaluating the use of the Company's web site during the outage.

7) Customer Comments and Complaints

The Commission's Electronic Filing and Information System (EFIS) received 105 public comments from EDE customers with concerns including, but not limited to, repeat outages, storm response, tree trimming and cleanup, quality of repairs, safety, call center issues, lack of estimated restoration times, customer communications, and executive management. A review of all public comments has prompted Staff to request additional information from Empire. A

summary listing of the breakdown of the public comments is attached to the filing of this initial report.

8) Medical and Special Needs Customers

The Company has a medical and special needs customer registry; however, it is tailored to comply with the Commission's Chapter 13 rules. Call Center agents can trigger a special needs indicator on the customer's account and note comments such as medical equipment, medical conditions, or various special needs. Currently, EDE has approximately 2,000 accounts on its medical and special needs registry, representing a large variety of needs. EDE does not guarantee priority of registration for those on the registry, but it may be considered. EDE does not make special storm warning calls or routinely send informational letters to registered customers to remind them what exactly being on the registry means in the event of a large outage. Staff is further evaluating the medical and special needs customer registration process, as well as the Company's storm response and restoration activities as they relate to medical and special needs customers including related institutions such as hospitals and nursing homes.

9) Communication with Customers and City, County and State Officials

The Company maintains a list of emergency contacts, including the Commission Staff, city and county officials, and the fire chief and emergency management officials in the larger towns within its service territory. EDE had occasional difficulty in contacting the smaller town officials in its service territory during the outages. EDE used the newspaper, television, and a radio station to share information with its customers. Staff is further evaluating the Company's communication efforts with customers and city, county and state officials.

10) Vegetation Management

Staff is examining EDE's current vegetation management program and how implementation of that program may have affected the damage incurred in this storm, including schedule adherence. Staff is looking at the impact of the Commission's vegetation management rule, which will soon be in effect, on EDE's vegetation management program.

11) Infrastructure Maintenance

To the extent that data is available, Staff is evaluating the impact of infrastructure maintenance on storm damage and/or storm damage prevention. Staff is also reviewing actions that EDE has taken to improve the reliability of their electrical transmission and distribution systems. Staff is looking at the impact of the Commission's infrastructure rule, which will soon be in effect, on EDE's infrastructure maintenance program.

12) Evaluation of Restoration Effort and Recommendations

Staff is performing a review of all Missouri electric investor owned utilities, since all four were impacted by the December 2007 storms. Staff sent a letter to all Missouri electric utilities on January 8, 2008. This letter requested specific information from the utilities regarding the December winter storm. EDE's responses to that letter have been received. Staff is compiling the information received through the responses to the Staff's letter, meetings, and other communications. Staff is also reviewing the areas for improvement identified in the January 2007 storm presentation made by EDE at the June 2007 roundtable.





Commissioners

JEFF DAVIS Chairman

Missouri Public Service Commission

CONNIE MURRAY
ROBERT M. CLAYTON III
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TERRY JARRETT

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DANA K. JOYCE
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Regulatory Policy

ROBERT SCHALLENBERG Director, Utility Services

NATELLE DIETRICH Director, Utility Operations

COLLEEN M. DALE Secretary/Chief Regulatory Law Judge

> KEVIN A. THOMPSON General Counsel

January 8, 2008

Mr. Mike Palmer
The Empire District Electric Company
P.O. Box 127
602 Joplin Street
Joplin, MO 64082

Dear Mr. Palmer:

The Commission recently opened cases and issued orders directing Staff to investigate the effectiveness of utilities' storm preparation and power restoration efforts for the December 2007 Ice Storms and report its findings and recommendations to the Commission (Case Numbers EO-2008-0215, EO-2008-0218, EO-2008-0219, and EO-2008-0220 for The Empire District Electric Company, Union Electric Company d/b/a AmerenUE, Kansas City Power & Light Company, and Aquila, Inc., respectively). The orders direct Staff to file an initial report regarding the results of its investigation no later than April 3, 2008. Staff anticipates filing an initial report by the date specified followed by additional reports as necessary at a later date. Staff will also consider scheduling a roundtable discussion (or similar forum) to review the results of these reports and analysis on a state-wide basis.

Since all investor-owned utilities in Missouri were affected, Staff is requesting the following information from each of the individual utilities by the dates listed.

- A. Description of the event, including statistics related to number of customer outages, duration of outages, infrastructure affected, call center performance data that includes metrics considered by the utility to be most critical during the outage, use of internal and third parties to provide personnel and facilities, and any other relevant information. <u>Submit to Staff by January 25, 2008.</u>
- B. Description of remedial actions taken by the utility to recover from the event, including resources utilized (manpower, material, financial expenditures, etc.), outage tracking, crew dispatching, restoration prioritization, customer communications, public official communications, special circumstances encountered, and any other relevant information. <u>Submit to Staff by February 15, 2008.</u>
- C. Description of actions taken (since the December 2007 storms) and planned actions to be taken by the utility to prevent or mitigate the effects of future events such as the December 2007 ice storms, including policy/procedure modifications, communications enhancements, vegetation management, reliability monitoring, infrastructure modifications, and any other relevant information. This item should include a review of any previous corrective actions (due to similar events) taken prior to December 2007 and an analysis of the success of those actions relative to this event. <u>Submit to Staff by February 29, 2008.</u>
- D. A complete copy of all procedures, policies, guidelines, plans, or other documents that existed prior to December 1, 2007, that were utilized during the December 2007 ice storm events, specifically

relating to Items A and B above. If the Company had a consolidated document such as a "Storm Restoration Plan", please provide it. <u>Submit to Staff by January 18, 2008.</u>

- E. A complete copy of any revisions made since the storm, to any of the documents listed in item D. <u>Submit to Staff by January 18, 2008.</u>
- F. A copy of all reports and other documentation provided to Company management regarding the Company's operations immediately prior to and during the storm restoration activities. <u>Submit to Staff by January 25, 2008.</u>
- G. Copies of all documentation defining the Company's methodology and data collection process to generate statistics (e.g. customer outages, costs, etc.) related to the impact of the storm on the Company's operations and financial conditions. <u>Submit to Staff by February 15, 2008.</u>

Staff has designated storm investigation coordinators for each of the utilities. Please feel free to contact the appropriate person with any questions or comments.

Lena Mantle	573-751-7520	lena.mantle@psc.mo.gov
Dan Beck	573-751-7522	dan.beck@psc.mo.gov
Debbie Bernsen	573-751-7440	debbie.bernsen@psc.mo.gov
Mike Taylor	573-526-5880	michael.taylor@psc.mo.gov
Lisa Kremer	573-751-7441	lisa.kremer@psc.mo.gov
	Dan Beck Debbie Bernsen Mike Taylor	Dan Beck 573-751-7522 Debbie Bernsen 573-751-7440 Mike Taylor 573-526-5880

An outline of the proposed topics and activities that Staff is proposing to be utilized is attached for your information. Please let us know if you have any suggestions for additional topics or activities.

If you have any questions regarding this information, or can't meet the timelines listed, please provide a written explanation why the timeline can't be met and when the information will be available for Staff review. You may contact Lena Mantle at 573-751- 7520 or me at 573-751-7435.

Sincerely.

Wess Henderson Executive Director

Attachment

CC:

Blane Baker Bob Berlin Nathan Williams James Swearengen

Renee Parsons

William Riggins

Thomas Byrne Natelle Dietrich

Bob Schallenberg

Lena Mantle

Dan Beck

Lisa Kremer

Debbie Bernsen

Mike Taylor

Warren Wood

Review of Storm Restoration Efforts Proposed Topics & Outline of Activities

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

Staff will examine how severe these storms were compared to typical winter

storms and if this was a contributor to the severity of the outages. Staff will

discuss with the electric utilities the operation of their Outage Analysis Systems

(OAS) during and following these storms if such system exists for the utility.

2) 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 the utilities recognized the severity of the outages and how quickly they sought outside assistance. The timing of requests for different levels of assistance will also be looked into as these outages were the result of two major ice storms. Staff will also study if the utilities did not ask some utilities for help or turned down any offers for assistance and if so, why. These factors will be looked at in conjunction with the utilities' 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

Staff will look at how all of the utilities dispatch crews using their systems 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.

4) Prioritization of Outage Repairs

Priority Treatment Groups (fire, medical, police, water, sewer, etc...)

Prioritization of Remaining Customers

Staff will review the current priority of service procedures and look into how the utilities track these customers in terms of when they lose service and how crews are dispatched to give them priority restoration service.

5) Call Center Operations During Storm

Customers Calling In To Report Outages

Overflow Provisions

Estimated Restoration Times

Customers Wanting Estimate But Not Being Provided

Automated Call Back Functions

Staff will review each utilities customer call capability. If it is determined that there were problems with the customer call capability, 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 the utilities' planning/infrastructure support process and any of these observations will be looked into by Staff.

6) Internet Linkage Problems

Three of the four of the Missouri IOU utilities give outage information on their internet sites. Staff will look into internet problems, how these situations occurred, how they were 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 the utilities' planning/infrastructure support process and any of these observations will be looked into by Staff.

7) Consumer Services Specific Issues/Observations

Staff will review all public comments and complaints submitted to the Commission regarding the outages. Any additional comments that the Commission receives will be included in this investigation.

8) Medical Needs Customer Registration and Notifications Staff will review the registration, education and notification processes of the utilities.

9) Communication with Customers and City, County & State Officials

Staff participated in the SEMA/EOC phone calls during this outage. Staff will

also review the utilities' normal process for maintaining contact with the media

and officials and agencies in preparation for future outages.

10) Vegetation Management

Status of Trimming?

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 will examine the topics listed above for all of the utilities in this review. Staff will also again look at types of vegetation contributing to the 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 the utilities' pole inspection & treatment programs, worst performing circuits and outage reports processes. Staff will also review what steps the utilities have taken to improve the reliability of their power delivery

system through installation of sectionalizing devices, reclosers, fuses and loop schemes.

12) Evaluation of Restoration Effort & Recommendations

Staff will compile the information received through meetings, utility responses, and data request responses. To the extent possible, Staff will provide a comparison of the IOUs' restoration efforts to the restoration efforts of co-ops in the affected areas. Staff will then summarize its concerns and provide its recommendations on how best to deal with these concerns.

Outage Customer Comment Summary Sheet December 2007

The Empire District Electric Company EO-2008-0215

Total Cust	omers Commenting		Total Number of Co	omments 📲 👯	Number o	f Comments Per 1	,000 customers
Utility	Amount:			Amount 🏙	Utility	Customers	Customers
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<u>Empire</u>	3.3%	1.6%	1.0%	6.8%	8.8%	19.2%	3.6%	2.9%	0.7%	4.2%	2.6%	1.6%	13.7%	0.0%	10.7%	0.0%	0.0%	13.4%	5.9%	100%