

MEMORANDUM

TO: Missouri Public Service Commission Official Case File
Case No. EC-2008-0384 Daniel E. Brown, v. The Empire District Electric
Company

FROM: James Ketter, Energy Department – Engineering Analysis

/s/ Lena Mantle 7/21/2008 /s/ Sarah Kliethermes 7/21/2008
Energy Department / Date General Counsel's Office / Date

Subject: Staff Report

Date: July 21, 2008

OVERVIEW

On June 4, 2008, Daniel E. Brown (Complainant) filed a formal complaint against The Empire District Electric Company (Empire). On June 5, 2008, the Commission notified Empire of the complaint and set a filing date for Empire's response as no later than July 7, 2008. On July 7, 2008, Empire filed its response. The Staff was directed to investigate and file a report no later than July 21, 2008.

DISCUSSION

Daniel E. Brown filed a formal complaint after efforts to resolve his concerns through contact with Empire and an informal complaint at the Commission did meet his expectations.

[REDACTED]

[REDACTED]

[REDACTED]

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[REDACTED]

[REDACTED]

STAFF INVESTIGATION

Staff made an onsite inspection of the electric facilities serving Mr. Brown and discussed the events of the two ice storms with him. Staff also reviewed circuit diagrams provided by Empire, and discussed the restoration efforts with Empire personnel.

Concerning Continuity of Service, Empire's relationship with its customers is governed by Empire's tariff P.S.C. Mo. No. 5 Sec. 5 5th Revised Sheet No 9. D.5. which provides as follows:

The Company will exercise reasonable diligence and care in providing a regular and uninterrupted supply of service to Customer. Whenever the Company finds it necessary, in order to repair or improve its system facilities, the Company shall have the right to temporarily suspend service to the Customer. The Company will not be liable for any interruption, fluctuation, shortage or insufficiency of the supply of service, or for any loss or damage occasioned thereby, if same is caused by strike, riot, civil commotion, hostile attack, storm, fire, accident, breakdown, unexpected or prolonged increase in usage of electricity, act of God, legal process, governmental interference, or any cause beyond its control.

Notwithstanding the preceding, Empire is obligated to supply its customers with safe and adequate service. That obligation includes an obligation to restore service when it is interrupted by weather or other circumstances beyond Empire's control. Empire's Answer summarizes its priorities during a major outage as: 1) to make the various situations safe; 2) to then restore critical loads such as hospitals, shelters, water and sewage plants, television and radio stations, etc.; and, 3) then to begin restoring service in such a way that restores service in the order that actions will bring service to the greatest number of customers. Staff finds these priorities appropriate.

[REDACTED]

In investigating the adequacy of Empire's restoration of Mr. Brown's service, the Staff finds it essential to consider the context of the restoration process system-wide.

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Public safety is a top priority when weather events damage electric facilities. Responding to calls from customers that report electric lines on the ground are of major concern, but response to those calls would not necessarily include restoring service to everyone served by those lines. In responding to these calls, utility crews inspect to ensure that no energized lines are a hazard to the public, and to make the area safe. In the earliest stages of responding to downed lines, circumstances may require repair of the facilities, or just assuring that the lines are de-energized.

[REDACTED]

Due to the extent of the damage to Empire's electric system, at this early stage in Empire's response to the storm, it is Staff's opinion that Empire should have been responding to calls concerning wires on the ground and completing an assessment of the damage.

[REDACTED]

[REDACTED]

Empire stated that there was extensive damage to the circuit caused by trees between Mr. Brown and the substation. Empire's response indicated that portions of this circuit were still being inspected and cleared of trees while the crossarm was repaired.

In his complaint Mr. Brown correctly identifies electric equipment that Empire has built into its electric system to allow alternate sources.

[REDACTED]

[REDACTED] As electric loads grow on a circuit and voltage variations are experienced, it appears that Empire was able to alter the circuit and thereby improve the quality of electric service. These changes are typically made after a study of the loads and the capacity available, and consideration of economic options, and not in response to catastrophic damage to the system.

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Extent of the Ice Storms and Current Commission Rules

The State Emergency Management Agency (SEMA) activates the State Operations Center (EOC) and coordinates resources to help to protect the lives and property of Missourians when disasters threaten public safety. The Staff joins SEMA and other State agencies and non-profit organizations to help Missourians when disasters occur that involve utilities that are regulated by the Commission.

During the ice storms of January and December 2007, the Staff was physically present at the EOC most of the time the EOC was activated, participated in daily SEMA meetings and acted as intermediaries between the utilities and county government agencies plus other impacted public and private entities. These ice storms caused significant damage to electric facilities across Missouri. The input from Empire and other utilities to SEMA helped to define the extent of the damage and the areas affected by the ice storms.

Empire's service area sustained serious damage in both ice storms. This damage is reflected by the number of customers impacted by the storms and the cost and the list of material required to restore service. Utility and contract line crews plus tree trimmers from other states not impacted by the ice storm were called on to assist with the restoration of electric service. The January 2007 ice storm affected 85,000 Empire electric customers and Jasper County was included in both the state and federal disaster declaration associated with this storm. The December 2007 ice storm affected 65,000 Empire electric customers and again, Jasper County was included in both the state and federal disaster declaration associated with this storm.

Empire and other electric providers struggled to recover from the devastation left behind following these ice storms. Access to areas was blocked by fallen or broken trees and limbs on the roads, which hampered the ability to assess the damage and to get crews to trouble spots. Early assessment is important to provide information on the extent of the damage and thus more accurately determine how many additional outside crews will be needed in order to minimize restoration time.

In Commission Case No. EO-2008-0215, the Staff was directed to investigate Empire's storm preparation and restoration efforts. The Staff report was filed in that docket on June 17, 2008. This report evaluated Empire's restoration planning and Empire's restoration efforts for its electric system. That report contains a number of recommendations to improve the planning and execution of a response to outages that affect a large number of customers and large portions of the electric service area. These recommendations address issues that mostly involve organization, management and planning. Improvements in each of these areas will assist local service centers in response to large scale outages, but local supervisors will still have to make the decisions on which feeders have priority and how to allocate the crews available.

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In addition, to the recommendations contained in Staff's report of Empire's storm preparation and restoration efforts, there are newly promulgated rules that will impact electric reliability statewide and should result in more resilient infrastructure and systems that can better withstand harsh weather conditions in the future. Those rules are 4 CSR 240-23.030, Electrical Corporation Vegetation Management Standards and Reporting Requirements, and 4 CSR 240-23.020, Electrical Corporation Infrastructure Standards. Both rules became effective June 30, 2008. Staff expects that review and discussion of Empire's restoration plan and compliance with the new rules will assist in the provision of reliable electric service.

STAFF REPORT OF ITS INVESTIGATION

The open docket in Case No. EO-2008-0215 is the appropriate venue to address Empire's overall response to the ice storms. This review of Empire's restoration plan will not address which house is restored first, but how the plan helps the utility organize and supplement the resources to restore customers as quickly as possible. [REDACTED]

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