

ARKANSAS PUBLIC SERVICE COMMISSION

2004 MAY -5 A 12: 35

IN THE MATTER OF AN INVESTIGATION)
 INTO THE RELIABILITY OF THE ELECTRIC)
 TRANSMISSION AND DISTRIBUTION)
 SYSTEMS IN THE STATE OF ARKANSAS)

DOCKET NO. 04-067-U
 ORDER NO. 1

FILED

ORDER

In August of 2003, a massive wide-spread electric power blackout affected large portions of the Northeast and Midwest United States and Ontario, Canada. The blackout lasted up to two days in some areas of the United States and even longer in some areas of Canada, and affected approximately 50 million people.

In the aftermath of the blackout, the United States and Canadian Governments established a *Joint U.S.-Canada Power System Outage Task Force* (“Task Force”) to investigate the causes of the blackout and to make recommendations that could reduce the possibility of future outages. On April 5, 2004, the Task Force issued its *Final Blackout Report*¹ (“Blackout Report”). The Blackout Report identified four primary groups of causes that contributed to the blackout: (1) inadequate system understanding; (2) inadequate situational awareness; (3) inadequate tree trimming; and (4) inadequate reliability coordinator diagnostic support. The Task Force issued forty-six specific recommendations designed to address the identified reliability issues. The recommendations fall into four substantive areas: (1) Institutional issues related to reliability; (2) Recommendations to support and strengthen NERC’s² remedial directives issued on February 10, 2004, in response to the blackout; (3)

¹ U.S.-Canada Power System Outage Task Force, Final Report on the August 14th Blackout in the United States and Canada: Causes and Recommendations (April 2004). The Final Report is available on the internet at www.ferc.gov/cust-protect/moi/blackout.asp .

² North American Electric Reliability Council

Recommendations to strengthen the physical and cyber security of North American bulk power systems; and (4) Recommendations regarding the Canadian nuclear power sector.

The Task Force identified FirstEnergy Corporation's failure to adequately trim trees and manage vegetation in its transmission rights-of-ways as one of the four primary causes of the blackout. The Blackout Report explained that, during the hour before the cascading blackout occurred, three FirstEnergy 345 kV transmission lines failed as a result of contact between the lines and overgrown vegetation that encroached into the required clearance height for the lines.³ It stated that "because the trees were so tall ... each of these lines faulted under system conditions well within specified operating parameters."⁴

The Blackout Report also compared the blackout with seven previous major outages and concluded that conductor contact with trees was a common factor among the outages.⁵ The Task Force emphasized that vegetation management is critical and that many outages can be mitigated or prevented by proper vegetation management practices.⁶

In March of 2004, the Federal Energy Regulatory Commission ("FERC") made available to the public a 128-page *Utility Vegetation Management Final Report*⁷ ("Vegetation Report") conducted by CN Utility Consulting, LLC on behalf of the FERC. The Vegetation Report details vegetation management problems which contributed to the blackout and the critical role of proper vegetation

³ Blackout Report at 57-67

⁴ Id. at 58

⁵ Id. at 107

⁶ Id. at 59

⁷ The Vegetation Report is available on the Internet at www.ferc.gov/cust-protect/moi/blackout.asp

management practices on reliability of the electric system. The Vegetation Report recommended specific practices that would reduce the likelihood of tree and power line conflicts and provides recommendations for the oversight and enforcement of vegetation management practices.

On December 1, 2003, the FERC conducted a public conference in FERC Docket No. RM04-2-000 to consider actions the FERC should take to promote reliable electric transmission service in interstate commerce. Based on the written and oral comments received in Docket No. RM04-2-000, the FERC, on April 19, 2004, issued its *Policy Statement on Matters Related to Bulk Power System Reliability* (“Policy Statement”).⁸ The Policy Statement addresses a number of issues that relate to the FERC’s role and policies regarding reliability of the interstate electric transmission system.

Concurrent with the issuance of its Policy Statement, the FERC also issued an order⁹ in Docket No. EL04-52-000 directing all transmission providers to report on their vegetation management practices related to certain overhead interstate transmission lines.¹⁰ Therein, the FERC directed as follows:

In this order, pursuant to section 311 of the Federal Power Act (FPA), the Commission directs all entities that own, control or operate designated transmission facilities in the lower 48 States ... whether or not they are otherwise subject to the Commission’s jurisdiction as a public utility, to report on the vegetation management practices they now use for those transmission lines and rights-of-ways. In order that this information be received before the summer peak load season ... this report should be submitted by June 17, 2004 to the Commission, [and] the appropriate State commissions.... This order is driven by the findings [contained in the Blackout

⁸ 107 FERC ¶ 61,052 (2004)

⁹ 107 FERC ¶ 61,053 (2004)

¹⁰ *Order Requiring Reporting on Vegetation Management Practices Related to Designated Transmission Facilities*, 107 FERC ¶ 61,053 (2004)

Report] ... and benefits customers because better understanding of utility vegetation management practices on transmission lines will help to support improvements to overall grid reliability.

Specifically, the FERC directed that the following information be provided:

a) Describe in detail the vegetation management practices and standards that the transmission provider uses for control of vegetation near designated transmission facilities, and indicate the source of any standard utilized (state law or regulation, historical practice, etc.). Describe the clearance assumptions or definition used for the appropriate distance between the vegetation and the facilities. Indicate how the vegetation management practices treat vegetation that encroaches or might reasonably be expected to encroach due to growth prior to the next inspection into the line clearance zone from below, beside, and above the facilities.

b) “designated transmission facilities” are defined, for the purposes of this report only, as lines with a rating of 230 kV or higher as well as tie-line interconnection facilities between control areas or balancing authority areas (regardless of kV rating) and “critical” lines as designated by the regional reliability council. List the facilities under transmission provider control that meets this definition. (footnote omitted)

c) For each facility identified pursuant to item b), indicate how often the transmission provider inspects that facility for vegetation management purposes. Indicate when the most recent survey of that facility was performed, what kind of survey was used (e.g., helicopter overflight or foot patrol), and indicate what the findings of that survey showed. If the survey led to further action, indicate what action was taken and the date(s) it was performed.

d) For the facilities identified pursuant to b), indicate whether identified remediation has been completed as of June 14, 2004.

e) Describe any factors that the respondent believes prevents or unduly delays the performance of adequate vegetation management.

The FERC further directed that the responses to parts b) and c) above should come in two parts. Each transmission provider is required to submit a

general response that contains clear information responding to each question. They must also provide a detailed response that addresses the specifics of each part. The FERC also provided that this detailed response may be filed under the protection of *Critical Energy Infrastructure Information*.

Transmission providers were directed by the FERC to submit the specified reports by June 17, 2004, to the FERC, the appropriate State Commissions, NERC and the relevant reliability authorities. In circumstances where multiple entities own, control or operate the same transmission facilities, only a single report need be submitted (but the report should identify which entities and lines are being handled through consolidated reporting).

In order to investigate and ascertain the reliability of electric transmission and distribution facilities in Arkansas, as well as identify any potential areas of concern that may require further investigation or rulemaking, this Commission has established the above-styled Investigative Docket. For purposes of conducting its investigation, the Commission hereby orders as follows:

1. All jurisdictional electric utilities, that are required, either directly or indirectly through a corporate parent, affiliate or subsidiary, to file a response to the FERC's April 19, 2004, Order referenced hereinabove, shall simultaneously file in the above-styled Docket an exact copy of their response to the FERC Order.
2. Further, with regard to all electric transmission facilities located in this State and not encompassed within the scope of FERC's reporting requirement, as well as all distribution facilities located in this State, all jurisdictional electric utilities shall file in this Docket by July 16, 2004, the same vegetation

management practices information as required by the FERC's Order. Said information shall be submitted in the same format as required by the FERC.

3. In addition, each jurisdictional electric utility shall file by July 16, 2004, the following distribution system reliability information for each calendar year for the period 1999 through 2003:

a. *System Average Interruption Frequency Index* or "SAIFI" calculated as follows: Total Number of Customer Interruptions¹¹ divided by Total Number of Customers Served.

b. *System Average Interruption Duration Index* or "SAIDI" calculated as follows: Σ Customer Interruption Durations divided by Total Number of Customers Served.

c. *Customer Average Interruption Duration Index* or "CAIDI" calculated as follows: Σ Customer Interruption Durations divided by Total Number of Customer Interruptions.

d. *Average Service Availability Index* or "ASAI" calculated as follows: Customer Hours Service Availability divided by Customer Hours Service Demand.

e. *Momentary Average Interruption Frequency Index* or "MAIFI" calculated as follows: Total Number of Customer Momentary Interruptions divided by Total Number of Customers Served.

f. *Customers Experiencing Multiple Sustained Interruptions and Momentary Interruption Events Index* or "CEMSMI_n" calculated as follows:

¹¹ For purposes of required indices a through f, interruptions shall be defined as including outages.

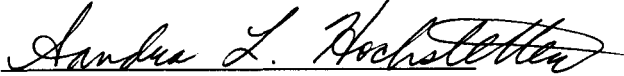
Total Number of Customers That Experienced More Than n Interruptions divided by the Total Number of Customers Served, where n equals 2 sustained or 4 momentary outages within a 1 month window or 4 sustained or 8 momentary interruptions in a 12 month rolling window.


4. All filings required by this Order shall be verified by the appropriate corporate officer.

5. Since this Docket is merely for the purpose of information gathering, no other parties, including the General Staff of the Commission or the Attorney General, will be permitted to intervene in this Docket at this time.

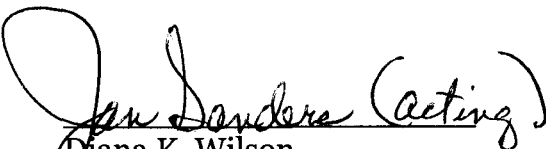
BY ORDER OF THE COMMISSION.

THIS 4th date of May, 2004.

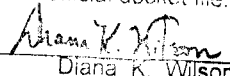

Sandra L. Hochstetter, Chairman


Daryl E. Bassett, Commissioner


Randy Bynum, Commissioner


Diana K. Wilson
Secretary of the Commission

I hereby certify that the following order issued by the Arkansas Public Service Commission has been served on all parties of record this date by the U.S. mail with postage prepaid, using the address of each party as indicated in the official docket file.


Diana K. Wilson

Secretary of the Commission

Date 5-4-04