

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

RECEIVED

In the Matter of:

JUN 15 2005

An Assessment of Kentucky's)
Electric Generation, Transmission) Administrative Case No. 2005-00090
And Distribution Needs)

PUBLIC SERVICE
COMMISSION

**Kentucky Power Company's Response to
Assessment of Kentucky's Transmission System
Vulnerability to Electrical Disturbances
Report Dated January 24, 2005**

Kentucky Power Company for its Response to the document entitled "Assessment of Kentucky's Transmission System Vulnerability to Electrical Disturbances" report states:

Background

Following the August 14, 2003, blackout that affected the northeastern and midwestern portions of the United States and Canada, the Kentucky Public Service Commission (KPSC) became interested in determining the vulnerability of the transmission system in the Commonwealth of Kentucky to electrical disturbances similar to one that occurred on August 14, 2003. The KPSC contracted with Commonwealth Associates, Inc., to conduct an independent assessment of the Kentucky transmission system. A utility task force, that was comprised of representatives from the six electric utilities in Kentucky, was also formed to provide advice and assistance to the KPSC and Commonwealth Associates during the conduct of this assessment.

On January 24, 2005, Commonwealth Associates issued its final report, entitled "Assessment of Kentucky's Transmission System Vulnerability to Electrical Disturbances", which was presented to the KPSC on February 1, 2005. On April 28, 2005, the KPSC issued an Order under Administrative Case No. 2005-00090, which directed the utilities that participated in the Vulnerability Assessment to (1) certify to the KPSC that they have reviewed the final report

and its findings, and (2) maintain for KPSC inspection all records of actions the utilities have taken to address the vulnerabilities identified in the course of performing this assessment.

At the request of the KPSC, Commonwealth Associates issued its Vulnerability Assessment report in two versions. The first version of the report reflects CEII confidentiality restrictions and was intended for distribution to the general public. Consequently, no mention is made in this report of the specific facilities that were addressed and the vulnerabilities that were identified in the course of performing this assessment. The second version of the report (labeled Working Papers), which was intended for the confidential use of the KPSC and of the six electric utilities that participated in this assessment, discusses the specific facilities that were addressed and the vulnerabilities that were identified in the course of performing this assessment. This response addresses the AEP facilities that are discussed in the second (Working Papers) version of the assessment report from Commonwealth Associates.

Summary of AEP Facilities Discussed in Report (Working Papers)

The transmission system performance that is documented in the Vulnerability Assessment report reflects an analysis of the forecasted peak load operating period for 2004 Summer, which was analyzed under base case (firm transfer) and stressed case (transfer-biased) conditions. The AEP facilities and system performance documented in this report, under both base case and stressed case conditions, are summarized below.

The distinction between system performance under base case (firm transfer) and stressed case (transfer-biased) conditions is important, since the mitigating actions that may be taken under each of these conditions can be significantly different. Whereas system upgrades to address transmission performance issues under base case conditions may be within the applicable

transmission planning criteria, such system upgrades may well be beyond criteria for use as mitigating actions to address transmission performance issues under stressed case conditions.

As a point of reference, the stressed case (transfer-biased) conditions considered in this Kentucky transmission assessment included, a 6000 MW north-to-south transfer through Kentucky, a 6000 MW south-to-north transfer through Kentucky, and a 1400 MW import into Kentucky.

Summary of AEP Facilities and System Performance Issues Under Base Case Conditions

Summary of AEP Facilities and System Performance Issues Under Stressed Case Conditions

Mitigating Action to Address AEP Facilities Discussed in Report (Working Papers)

AEP-LGEE 161 kV Interconnection

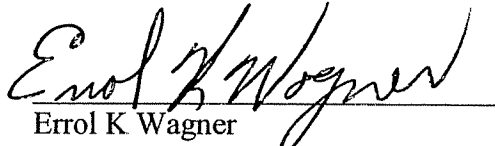
Scheduled to be placed in service by December 2005, the new 161 kV transmission facility will interconnect the Hazard - Leslie 161 kV circuit in AEP with the Delvinta - Arnold 161 kV circuit in LGEE. This new transmission facility is expected to mitigate the thermal overload and low voltage conditions in the general vicinity of the Beaver Creek to Hazard to Pineville 138/161 kV path, that were identified in this Kentucky transmission assessment. AEP has filed an application for a Certificate of Convenience and Necessity with the KPSC, as required, to facilitate construction of this new transmission facility.

Wyoming-Jacksons Ferry 765 kV Line

Scheduled to be placed in service in mid 2006, the new 90-mile long Wyoming to Jacksons Ferry 765 kV line will connect the existing Wyoming 765 kV Station in West Virginia with the existing Jacksons Ferry 765 kV Station in Virginia. This new facility will mitigate the thermal overloads and low voltages that could result from the unexpected loss of parallel 765 kV or 500 kV transmission facilities, including the outage of the Baker to Broadford 765 kV circuit that was identified as a notable contingency in this Kentucky transmission assessment.

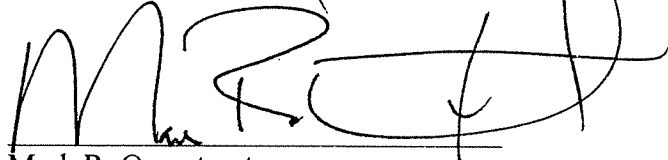
Certification

Kentucky Power Company hereby certifies that in accordance with the analysis above it has reviewed the document entitled "Assessment of Kentucky's Transmission System Vulnerability to Electrical Disturbances" and has taken appropriate action to address the vulnerabilities, if any, identified in the course of conducting the assesement.



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Respectfully submitted



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CERTIFICATE OF SERVICE

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on this the 15th day of June, 2005.

A handwritten signature in black ink, appearing to read 'M R Overstreet', written over a horizontal line.

Mark R. Overstreet