Ted Hampton
Manager

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CUMBERLAND VALLEY ELECTRIC

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March 30, 2005

Beth O'Donnell
Public Service Commission
211 Sower Blvd
P.O. Box 615
Frankfort, Kentucky 40602-0615

Ms. O'Donnell,

Please find enclosed Cumberland Valley Electric's response to case 2005-00090. Cumberland Valley Electric has answered the questions that pertained to distribution operation and East Kentucky Power will answer the questions that pertain to generation and transmission of electricity per your request.

Encl: 10 copies of Cumberland Valley Responses

Sincerely,

Ted Hampton
Manager

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN ASSESSMENT OF	)	
KENTUCKY'S ELECTRIC	)	ADMINISTRATIVE CASE NO. 2005-00090
GENERATION, TRANSMISSION	)	
AND DISTRIBUTION NEEDS	)	

Cumberland Valley Electric Cooperative Corporation Responses to
Appendix B Directives of Kentucky Public Service Commission
Administrative Case No. 2005-00090

Respectfully submitted this 31st day of March, 2005.

By: Ted Hampton, Manager

WITNESS RESPONSIBILITY

Mr. Ted Hampton, Manager of Cumberland Valley Electric, is the witness assigned to all responses other than Item 17. Mr. James Lamb, Manager of Marketing Research at East Kentucky Power Cooperative, is assigned to that item.

NON-APPLICABLE ITEMS

Request numbers 3, 4, 6 through 16, 21 through 25 are not applicable to Cumberland Valley Electric.

CUMBERLAND VALLEY ELECTRIC
PSC ADMINISTRATIVE CASE NO. 2005-00090
RESPONSES TO INITIAL DATA REQUESTS

Request 1. Provide a summary description of your utility's resource planning process. This should include a discussion of generation, transmission, demand-side, and distribution resource planning.

Response 1. CVE's resource planning processes are generally limited to distribution system assets as CVE is an electric distribution cooperative corporation and has no ownership interests in any generation, transmission or substation facilities. Furthermore, CVE does not currently administer a demand-side management program.

Currently, CVE planning of distribution asset improvements starts with compilation of data from our GIS mapping database, consumer billing system records and power supplier billing and technical records. These systems contribute component data used for construction of an accurate system model. Using suitable software packages, the model is adjusted to represent operation at worst-case present-day conditions and analyzed to identify system component deficiencies such as overloaded conductor and/or equipment and over/under voltage conditions. Reliability, system loss and optimization of service issues are also identified by this process. Using demand projections, the model is aged to reflect future loading and analysis iterations are completed to attempt to predict future system component deficiencies.

After analysis of the system model is complete, recommendations for corrective actions are compiled in the form of a Work Plan, which addresses current and future system improvement issues. Many other issues such as system expansion, improvement, operation, maintenance, sectionalizing and implementation of new technologies are

included in the Work Plan. CVE's current Work Plan started in 2003 and expires in 2006. Studies for the next Work Plan are expected to begin later in 2005.

Request 2. Are new technologies for improving reliability, efficiency and safety investigated and considered for implementation in your power generation, transmission and distribution system?

a. If yes, discuss the new technologies that were considered in the last 5 years and indicate which, if any, were implemented.
b. If no, explain in detail why new technologies are not considered.

Response 2. CVE maintains a progressive stance regarding investigation and implementation of new technologies to improve efficiency, reliability and safety. Costs for new technologies are evaluated against benefit for our member consumers.

During the last 5 years, CVE evaluated and implemented GIS mapping technology which allows for much improved functionality over paper based mapping systems.

In 1997, CVE embarked upon implementation of automated meter reading technology utilizing Hunt Technologies' TS1 Turtle system. This year, the latest generation of Hunt's AMR technology, TS2, is being implemented at seven of Cumberland Valley's fifteen substations in Knox and Whitley Counties. TS2 technology provides for two-way communication with CVE's meters which provides for the possibility of remote connects/disconnects, phase connection reporting and voltage monitoring.

Starting in April of 2005, CVE in conjunction with East Kentucky Power Cooperative will begin installation of SCADA at all CVE substations. SCADA is an acronym for Supervisory Control and Data Acquisition. This technology provides real-time acquisition of data from each substation such as feeder current levels, station output voltage, breaker status, power factor, etc. It also allows for remote supervisory control of

feeder breakers and voltage regulators. This functionality could be used to implement and expedite load reduction/load shedding programs when directed by East Kentucky Power Cooperative to avert undesired system operation under adverse system conditions.

Request 5. Provide actual and weather-normalized annual coincident peak demands for calendar years 2000 through 2004 disaggregated into (a) native load demand, firm and non-firm; and (b) off-system demand, firm and non-firm.

Response 5.

Cumberland Valley Electric
Actual and Weather-Normalized
Annual Coincident Peak Demands

Annual Peak	Actual Peak Demand (MW)	Weather Response Function (MW / Degree)	Actual Peak Day Temperature (Degrees F)	Normal Peak Day Temperature (Degrees F)	Weather Normalized Peak Demand (MW)
December-00	111.5	-1.11	6	1	117.0
January-01	118.7	-1.11	9	1	127.6
March-02	109.1	-1.13	10	1	119.2
January-03	119.9	-0.95	6	1	124.6
January-04	124.6	-1.11	3	1	126.8

Based on Jackson KY Weather Station Data
and Cumberland Valley Electric Hourly Load Data

Request 17. Provide a summary description of your utility's existing demand-side management ("DSM") programs, which includes:

a. Annual DSM budget.

b. Demand and energy impacts.

c. The currently scheduled termination dates for the programs.

Response 17. Cumberland Valley Electric is not an active participant in DSM (demand side management programs). It does not have a budget for DSM. From the standpoint of customer relations, Cumberland Valley will suggest efficient heating and cooling measures.

Request 18. Provide your utility's definition of "transmission" and "distribution".

Response 18.

Transmission – The component part of the electric system operating at voltages at or above 69kV which provides bulk power to distribution substations.

Distribution – The component part of the electric system operating at voltages less than 69kV emanating from distribution substations, which directly serve individual residential, commercial and industrial customers.

Request 19. Identify all utilities with which your utility is interconnected and the transmission capacity at all points of interconnection.

Response 19. CVE does not have any interconnections with any other utilities except East Kentucky Power Cooperative.

Request 20. Provide the peak hourly MW transfers into and out of each interconnection for each month of the last 5 years. Provide the date and time of each peak.

Response 20. Not Applicable.

Request 26. Provide the yearly System Average Interruption Duration Index ("SAIDI") and the System Average Interruption Frequency Index ("SAIFI"), excluding major outages, by feeder for each distribution substation on your system for the last 5 years.

Response 26. CVE does not currently track interruptions to the detail required to fully reply to this directive. The information provided below represents CVE's system-wide indices inclusive of all interruption events.

Year	SAIFI	SAIDI
2004	2.153	2.42
2003	1.599	2.21
2002	1.253	2.24
2001	1.589	1.28
2000	1.293	1.10

Request 27. Provide the yearly SAIDI and SAIFI, including major outages, by feeder for each distribution substation on your system for the last 5 years. Explain how you define major outages.

Response 27. CVE does not currently track interruptions to the detail required to fully reply to this directive. The information provided below represents CVE's system-

wide indices inclusive of all interruption events. CVE will define a major outage to be of such magnitude as to require its report to the Kentucky Public Service Commission.

Year	SAIFI	SAIDI
2004	2.153	2.42
2003	1.599	2.21
2002	1.253	2.24
2001	1.589	1.28
2000	1.293	1.10

Request 28. What is an acceptable value for SAIDI and SAIFI? Explain how it was derived.

Response 28. CVE has not established acceptable values for SAIDI and SAIFI indices.

Request 29. Provide the yearly Customer Average Interruption Duration Index ("CAIDI") and the Customer Average Interruption Frequency Index ("CAIFI"), including and excluding major outages, on your system for the last five years. What is an acceptable value for CAIDI and CAIFI? Explain how it was derived.

Response 29. CVE does not currently track interruptions to the detail required to fully reply to this directive. The information provided below represents CVE's system-wide indices inclusive of all interruption events. CVE has not established acceptable values for CAIDI and CAIFI indices.

Year	CAIFI	CAIDI
2004	1.55	1.61
2003	1.44	1.57

Request 30. Identify and describe all reportable distribution outages from January 1, 2003 until the present date. Categorize the causes and provide the frequency of occurrence for each cause category.

Response 30.

	Year 2004	
Cause	Number of Outages	Frequency of Occurrence
Trees	239	39.1%
Equip Failure	287	47.0%
Accident	24	3.9%
Vandalism	1	0.2%
Animals	43	7.0%
Planned	4	0.7%
Storms	11	1.8%
*Power Supplier	2	0.3%
Total	611	100.0%

* East Kentucky Power Cooperative.

	Year 2003	
Cause	Number of Outages	Frequency of Occurrence
Trees	240	41.9%
Equip Failure	246	42.9%
Accident	5	0.9%
Vandalism	11	1.9%
Animals	39	6.8%
Planned	1	0.2%
Storms	29	5.1%
*Power Supplier	2	0.3%
Total	573	100.0%

* East Kentucky Power Cooperative.

Request 31. Does your utility have a distribution and/or transmission reliability improvement program?

a. How does your utility measure reliability?

b. How is the program monitored?

c. What are the results of the system?

d. How are proposed improvements for reliability approved and implemented?

Response 31. CVE maintains an ongoing reliability improvement program utilizing periodic review of sectionalizing schemes, R/W maintenance, line inspections and vegetation management.

a. CVE measures System Average Interruption Frequency Index (SAIFI).

b. Outage reports are monitored to identify problem areas.

c. Once problem areas are identified, resources are allocated to implement corrections.

d. Recommendations for reliability improvements along with cost estimates for said improvements are generated by engineering personnel and presented to management for approval/implementation.

At present, CVE engineering resources are engaged in a thorough system-wide review of sectionalizing philosophy and design. Several recommendations have already been proposed regarding substation breaker equipment settings and substation over-current protection schemes. Once completed, tentatively estimated at mid-May, the overall recommendations will be presented to CVE management for consideration, approval and implementation.

Request 32. Provide a summary description of your utility's:

a. Right-of-way management program. Provide the budget for the last 5 years.

b. Vegetation management program. Provide the budget for the last 5 years.

c. Transmission and distribution inspection program. Provide the budget for the last 5 years.

Response 32.

a. CVE defines right-of-way management to be tree trimming or tree removal on its right-of-ways. This is done on a system-wide 6 year cycle. Budgets for 2005 and the previous 3 years are available and presented below.

Year	Budget
2005	$866,836.00
2004	$807,880.00
2003	$778,565.00
2002	$723,805.00

b. CVE defines vegetation management to be removal of undergrowth and brush. Budgets for 2005 and the previous 3 years are available and presented below.

Year	Budget
2005	$147,188.00
2004	$92,113.00
2003	$98,888.00
2002	$46,194.00

c. CVE performs annual system-wide distribution facility inspections. CVE does not specifically budget this item.

Response 33. Explain the criteria your utility uses to determine if pole or conductor replacement is necessary. Provide costs/budgets for transmission and distribution facilities replacement for the years 2000 through 2025.

Response 33. CVE manages its facility assets to maximize their utilization. All facilities remain in service until such time as deficiencies are identified. Decisions involving replacement of facilities such as poles, conductors and equipment are made based on several criteria, such as measured and projected loading, mechanical loading

and physical condition of facilities in question. Poles are not replaced until their physical condition renders them unsafe or otherwise unusable. CVE projects to replace approximately 50 poles per year through 2025 at an estimated cost of approximately $90,000.00 per year. This estimate may be increased per annum by inflation. CVE does not have budgeted costs for replacement of other distribution facilities in future years.