# **Final Report**

**Focused Performance Audit** 

Of

**Cumberland Valley Electric** 

On Behalf Of

**Kentucky Public Service Commission** 

May 4, 2007



# Audit of Cumberland Valley Electric

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# Audit of Cumberland Valley Electric

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# I. EXECUTIVE SUMMARY

## A. AUDIT APPROACH

Vantage Consulting, Inc. (Vantage) is pleased to submit this report on the performance of Overall Conclusion Cumberland Valley Electric (Cumberland Valley or CVE) to the Kentucky Public Service Commission (Commission). This audit and subsequent report was in response to a Request For Proposal issued on September 25, 2006 and the Vantage proposal submitted on October 27, 2006

### AUDIT FIELD WORK APPROACH

Vantage consultants visited CVE on three occasions and included tours of all office and shop locations, introductions to the majority of all employees and visit to substations.

In total, fifteen interviews were held of twelve different employees. This included interviews of two members of the Board of Directors. Forty-four data requests were made and responded to by CVE. This included one request of all key documents from its recent rate case which consisted of dozens of individual filings and studies.

Vantage addressed each element of the Detailed Work Plan, collected all necessary data and interviewed all personnel relevant to the work steps. Our analysis of procurement records involved a hands-on review of all documents associated with each procurement reviewed.

### REPORT LAYOUT

The layout for this report was developed after all field work and drafts were complete. The report is organized as follows.

**Chapter I – Executive Summary** – Provides a description of the audit's objectives, methodology, overall conclusions, and specific recommendations.

**Chapter II - CVE Background**- Provides an overview of CVE's size and organization.

**Chapter III - Analysis and Results of Major Issues -** This chapter addresses the analysis and findings resulting from our work.

Findings and recommendations are numbered as follows: III-F1 refers to the 1<sup>st</sup> finding in *Chapter III*, III-R4 is the 4<sup>th</sup> recommendation in *Chapter III*, and so on.

#### **PROJECT TEAM**

The names of the project consultants and areas they addressed are shown below. Together they have over fifty years of utility operations and consulting experience.

Consultant	Position
Walt Drabinski, BSEE, MBA	Project Director and Lead Consultant
Robert Wilkinson, CPA, MBA	Senior Consultant

## **AUDITING STANDARDS**

The audit was conducted in accordance with the United States Government Accounting Office's Generally Accepted Government Auditing Standards (GAGAS - the Yellow Book) as revised in 2003, with specific reference to the provisions and standards for Performance Audits.

### **B. OVERALL CONCLUSIONS**

Cumberland Valley Electric is a small, mature electric cooperative that operates very efficiently given its geographic and economic environment. The geography of CVE territory is very rough and rocky, with small mountains and many difficult to reach areas. Its population is very rural and the economy in this area of Kentucky is, in general, poor. Given these constraints the Management of CVE does an excellent job of providing reliable electric service at a reasonable cost.

This focused audit was mandated as a result of the last rate case, the second in forty years, and was intended in part, to determine whether certain allegations of poor management made by parties to the case had any validity. Our conclusion is that our analysis did not confirm any of the allegations presented. In fact, in the areas of procurement and cost control, the Management of CVE was extremely responsible. The allegations of nepotism were not well founded given CVE's current employment practices. By the time the management audit began, the Board took definitive action to ensure that the hiring of family members cannot be done in the future.

Some of our general conclusions are as follows.

- The Management Team in place at CVE is effective, capable and committed. This is due, in part, to a strict work ethic and to the experience of its senior managers.
- There is a need to consider succession planning to ensure that as some of the senior management personnel leave, they are replaced with competent employees who can sustain the success of the Company. A succession plan has been proposed by the General Manager and discussed with the Board of Directors.
- The organization of CVE is designed to permit coverage of all required functions with the flexibility that a small company requires. Its staffing is well controlled and reflects the desire to control costs while achieving a reasonable level of performance.

- CVE, when measured against the twenty four Cooperatives in the State, generally falls in the top third for most statistical measures.
- CVE has implemented a number of modern technologies such as automatic meter reading, that permit more efficient and accurate collection of data and a Geographical Information System (GIS) that provides electronic mapping of all equipment and facilities.
- CVE has specific plans in place to upgrade three of its substations, further reducing system electric losses. It also continues to address system power factor issues that arise due to the load at coal mines in the region.
- The procurement process in place at CVE is well designed, with appropriate procedures and controls in place. After extensive analysis of almost every major purchase made in the recent past, our consultants could find no reason for concern
- Concerns about the Internal Audit Department at CVE were addressed and resolved before the audit was complete.
- The employees at CVE are competent, committed and flexible. They understand the need to work in a safe manner, yet ensure quick responses to outages. The typical path of hiring the best contract employees after they have experience provides a base of competent and tested employees.
- Most training, except for safety training, is provided through on the job experience. We have some concern that there needs to be a more formalized program and assurance that each employee is fully capable. This is addressed through one of our recommendations.

## C. RECOMMENDATION SUMMARY

III-R1 Develop a Succession Plan that ensures that addresses the potential retirement of the General Manager.

Management has started to communicate with the Board of Directors on this subject and this needs to be continued and formalized. A review of the draft Succession Plan that will be submitted to the BOD appears to be adequate, although Vantage cannot provide any legal opinion on it.

Without a careful transition there could be some deterioration of management quality. We would suggest that the Succession Plan be completed within three months and that it includes the following elements.

- Prioritize the need for a replacement. First, identify key personnel eligible and likely to retire soon. Second, identify personnel who, if they leave, would create significant concerns.
- Identify personnel within CVE who might make capable replacements and prepare a program for developing required expertise.
- Should it be necessary to look outside the Company, make plans for such a search well before the retirement takes place to allow adequate transition.



• Communicate plans and opportunity for advancement to all employees so that they do not think they are constrained from advancement.

The Plan, once designed, should be a living document. Its cost should not be significant unless there is a need for a regional or national search to fill some positions.

# III-R2 Institute a formal program for training for all new members of the Board of Directors .

There are formal programs available for new BOD members that help them better understand the operation and issues faced by cooperative energy companies. The members we spoke with who had attended the program were very positive about the experience. Since there is no formal policy in place to require attendance, we would propose that this be done.

The policy can be implemented within three months and BOD members needing training could be expected to attend the program within one year. At that point it becomes a general ongoing policy. The cost would be no more than \$3,000 per BOD member.

III-R3 CVE should investigate the possibility of establishing a joint internal audit function through a utility cooperative association, or a joint agreement with other utilities.

One alternative CVE could consider is utilizing the internal resources from another Cooperative or East Kentucky Power Cooperative, Inc. (East Kentucky Power or EKPC) itself for audits of the financial areas. This would mitigate the conflict of the current Internal Auditor.

Another option may be to retain an Internal Auditor on a contract basis from an outside CPA firm.

III-R4 Perform an assessment of training needs and identify deficiencies for individual employees and address any needs.

CVE cannot afford to have employees who are not fully trained. While a casual approach worked in the past, it would not be difficult to develop a formal tracking system and tailor training to each employee. This is important for all employees, but critical for field employees who must work near energized equipment.

Most training of craft employees is currently done on the job. While this process, plus the policy of hiring from the ranks of experienced contractors ensures a high level of general skills, it does not ensure that every employee is fully trained. The program should consist of the following steps or elements.

- Identify the positions for which training needs to be addressed. These include all field positions and any customer service positions where interface with the customer requires expertise.
- Develop a list of skills or capabilities that are needed. Consider a checklist.

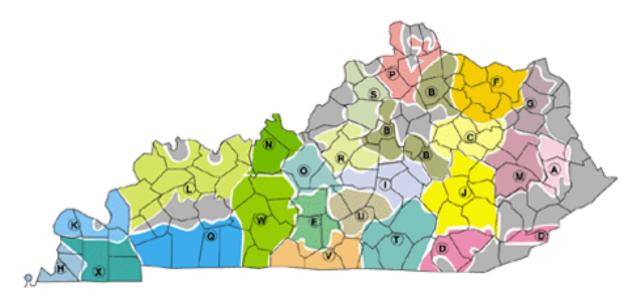
- Assess each employee against the checklist to identify any deviations.
- Develop custom programs for each employee needing training.
- Use the checklist when hiring or promoting employees.

# II CUMBERLAND VALLEY ELECTRIC BACKGROUND

## A. HISTORY

#### HISTORY OF CUMBERLAND VALLEY ELECTRIC

Cumberland Valley Electric was formed in 1942 by local business and community leaders to bring electricity to the more rural areas of eastern Kentucky. It serves a rural portion of south-central Kentucky, as shown on the map below, and consists of eight Counties, including: Bell; Harlan; Knox; Laurel; Leslie; Letcher; McCreary; and Whitley. Its service territory also extends to the County of Claibourne, TN.

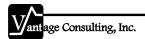


As a distribution cooperative, Cumberland Valley purchases all the electric energy it sells from East Kentucky Power Cooperative, Inc. Cumberland Valley is one of 16 members – owners of East Kentucky Power. An analysis of how CVE compares to its fifteen sister companies is provided below.

There are currently 52 employees at CVE located in the following two offices.

#### **Main Office**

Cumberland Valley Electric Highway 25-E Cumberland Parkway Gray, Kentucky 40734 1-800-513-2677 Phone 606-523-2698 Fax www.cvecc.com



#### **District Offices**

Cumberland Valley Electric 15997 North US Highway 119 Cumberland, Kentucky 40723 606-589-4421 Phone

## **B. HISTORY OF RATES**

Cumberland Valley Electric has long maintained stable rates. According to the Manager, rates have only been raised twice in the 40 years he has been with the Company. The most recent rate increase came in 2006 as a result of a request in July 2006, due to deteriorating financial conditions as demonstrated by declining financial ratios. Our analysis does not address the recent rates case or the specifics of the financial ratios, however we do summarize some analysis later in this Report. Prior to the 2006 rate case, the last general rate increase with this Commission was effective August 1, 1980 in Case No 7772.

Cumberland Valley's Financial Policy and Equity Management Policy require that an equity level of 30% to 40% be maintained as well as satisfying the mortgage requirements on Times Interest Earned Ratio (TIER). Cumberland Valley did not meet its mortgage TIER requirements for the test period of 2005 and was notified by the Rural Utilities Services (RUS).

## C. STATISTICAL COMPARISON WITH OTHER COOPERATIVES

The RUS prepares annual statistical comparisons of all electric cooperatives. The latest data available was for 2005, and while dated, still gives a good perspective of where CVE ranks compared to the twenty-four cooperatives in Kentucky¹. A summary of this comparison follows.

#### REVENUE PER KWH COMPARISON

Comparisons of residential, commercial and industrial rates, measured in ¢/kWh, are provided. A review shows that:

Overall, CVE ranked eighth of the twenty-four cooperatives in 2005 with a total revenue of 6.9¢/kWh. This includes 7.1¢/kWh (4th) for residential, 8.8¢/kWh (22nd) for commercial and 6.9¢/kWh (18th) for industrial. (These could change based on CVE's and other utilities' rate changes since that time);

<sup>&</sup>lt;sup>1</sup>/ This includes the sixteen cooperatives that own East Kentucky Power and three that own Big Rivers Electric Corporation and the five cooperatives supplied by the Tennessee Valley Authority.



• CVE's rates were higher for all rate classes than any of the four IOU's in the State. In particular, Kentucky Utilities, which is a neighbor, has residential rates of 5.5¢/kWh (23% lower), commercial rates of 5.3¢/kWh (28% lower) and industrial rates of 4.1¢/kWh (34% lower).

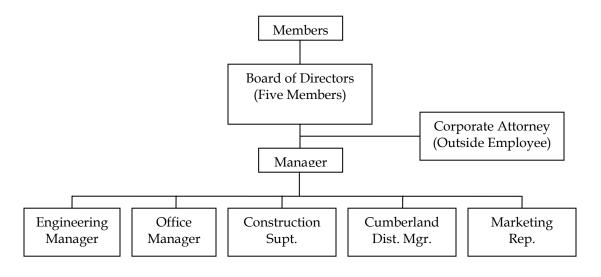
# III. AUDIT ANALYSIS AND RESULTS

## A. ORGANIZATION STRUCTURE AND MANAGEMENT

The general organization of CVE is shown in the Exhibit below. This is followed with details on each department and position within the Company.

# Focused Management Audit of Cumberland Valley Electric

# Exhibit III-1 Corporate Organization Chart



### **ENGINEERING DEPARTMENT**

Engineering Manager General Clerk Assistant Engineer (3)

## **CUMBERLAND DISTRICT**

General Consumer Clerk (2) Serviceman (2) Crew Leader

## **BUSINESS OFFICE**

Information Systems Administrator



**Billing Supervisor** 

General Clerk Billing (4)

General Clerk Consumer Records (4)

Accounting Supervisor and Internal Auditor

Accountant

Assistant Book Keeper

#### CONSTRUCTION

Mechanic

Maintenance Technician

Crew Leader

Lineman (3)

Apprentice Linemen (2)

Crew Leader

Lineman (4)

Apprentice Linemen

Serviceman (8)

III-F1 The organizational structure of CVE is straightforward and appropriate for a company of its size.

The small size and dispersed offices of CVE require flexibility in organizational structure and in responsibilities. We were impressed in the way that each of the two offices was organized. The Headquarters utilized a typical utility structure with positions that one would expect. The Cumberland Office was organized to be very flexible. The office is far enough away (1 hour drive) that it is inconvenient to share personnel on a regular basis. Therefore, the Cumberland Office staff were all multi-dimensional and able to fill in for one another.

#### **BACKGROUND & EXPERIENCE OF MANAGEMENT EMPLOYEES**

III-F2 The background and experience for employees in all areas appeared to be adequate.

It is important to note that CVE is one of the best paying companies in the region. Therefore the Company is generally able to select employees who are well qualified.

- Most construction employees come from contractor crews who have worked on the CVE system for many years. This means that they are experienced and know the CVE system before ever starting work.
- Office and other professional employees all seemed to be well educated and skilled. Many professional employees are local residents who received college and graduate degrees and find that CVE is one of the better paying opportunities in the region.



## III-F3 The retirement of the General Manager is likely in the not to distant future.

The GM is eligible for retirement at any time and has indicated that he is starting to begin the process of succession planning. We agree with his plans for finding and developing a replacement.

III-R1 Develop a Succession Plan that ensures that addresses the potential retirement o the General Manager. (Refer to Finding III-F3.)

Management has started to communicate with the Board of Directors on this subject and this needs to be continued and formalized. A review of the draft Succession Plan that will be submitted to the BOD appears to be adequate, although Vantage cannot provide any legal opinion on it. <sup>2</sup>

Without a careful transition there could be some deterioration of management quality. We would suggest that the Succession Plan be completed within three months and that it includes the following elements.

- Prioritize the need for a replacement. First, identify key personnel eligible and likely to retire soon. Second, identify personnel who, if they leave, would create significant concerns.
- Identify personnel within CVE who might make capable replacements and prepare a program for developing required expertise.
- Should it be necessary to look outside the Company, make plans for such a search well before the retirement takes place to allow adequate transition.
- Communicate plans and opportunity for advancement to all employees so that they do not think they are constrained from advancement.

The Plan, once designed, should be a living document. Its cost should not be significant unless there is a need for a regional or national search to fill some positions.

## **B. CORPORATE GOVERNANCE**

Currently, there are five members of the Board of Directors. The number was reduced from seven to five recently. This change took place at that same time that a number of By-Laws were modified in November 2004.



# BOARD OF DIRECTORS' BACKGROUND, GENERAL QUALIFICATIONS & TENURE

III-F4 Experience, qualifications and interest of Board members seems to be very high in all areas.

Vantage interviewed two Board members, including the Chairperson. We also reviewed bios on all others. We were impressed by the breadth of experience of the Board members as well as the interest they showed in the success of CVE.

During discussions, we addressed training for Board members. They indicated that most of the Board members had attended a program sponsored by RUS and NRECA that gave them the fundamentals they needed to understand the specifics of an Electric Cooperative.

### RELATIONSHIP OF BOARD MEMBERS TO MANAGEMENT EMPLOYEES

III-F5 There is one Board member with a relationship to management employees and there are no current Board members or relatives of Board members who have contracts with CVE.

Changes in the BOD make-up in recent years removed a number of awkward relationships.

Vantage would reiterate that there is nothing inherently wrong with purchasing from suppliers with relationships as long as all procedures are met and the individual with the relationship is excluded from any decisions. Our analysis of a number of contacts in a later section of this report shows that there are strong policies in place for procurement and they are adhered to.

#### **BOARD MINUTES & REPORTS TO THE BOARD**

III-F6 Review of BOD Minutes showed that they are well kept and include all information needed.

Board minutes were reviewed in detail for the last three years and appeared to be in order.

III-R2 Institute a formal program for training for all new members of the Board of Directors . (Refer to Finding III-F4.)

There are formal programs available for new BOD members that help them to better understand the operation and issues faced by cooperative energy companies. The members we spoke with who had attended the program were very positive about the experience. Since there is no formal policy in place to require attendance, we would propose that this be done.

The policy can be implemented within three months and BOD members needing training could be expected to attend the program within one year. At that point it becomes a general ongoing policy. The cost would be no more than \$3,000 per BOD member.

# C. EMPLOYEES, RELATIVES & RELATIONSHIPS

III-F7 An analysis of employees with relations within CVE shows that they are not unreasonable given the size of the community in which CVE is located and the past history of family involvement in the Company.

An analysis of relationships within CVE showed the following.3

- There are nine employees with a relationship of some type to another employee.
- There are no immediate relationships such as husband/wife or son/daughter.
- Many of the relationships are in-laws that arose due to marriages between non-CVE employees.
- All other relationships are cousins, in-laws, and other once removed relationships.

CVE now has a policy in place forbidding the hiring of relations without expressed approval by the BOD.

## D. PERFORMANCE AND RATIO ANALYSIS

Cumberland Valley Electric develops and maintains a series of analytical ratios that are reported through its Calculated Borrower Statistical Profile. Vantage utilized this information for the period 2002 through 2006 in order to get an overall assessment of trends and specific results being achieved. The ratios are categorized into five categories, including:<sup>4</sup>

- Financial Ratios;
- Consumer Ratios;
- Employee Costs;
- MWH Sold;
- Plant Investment.

We provide these ratios in the following Exhibits along with our observations or conclusions to highlight changes.

<sup>&</sup>lt;sup>4</sup> / DR# 115 and 142.



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<sup>&</sup>lt;sup>3</sup> / DR 104.

## Exhibit III-2 Financial Ratios

	2002	2003	2004	2005	2006
TIER (One Year)	3.17	2.89	1.06	0.67	1.17
Average Tier	2.92	3.03	3.03	1.98	1.12
OTIER (One Year)	1.24	1.18	0.92	0.54	1.06
Average Otier	1.24	1.23	1.21	1.05	0.99
MTIER (One Year)	1.28	1.23	1.02	0.63	1.13
DSC (One Year)	2.86	2.44	1.52	1.29	1.51
Average DSC	2.8	2.8	2.65	1.98	1.24
ODSC (One Year)	1.78	1.63	1.45	1.22	1.45
Average ODSC	1.79	1.79	1.71	1.54	1.18
MDSC (One Year)	1.80	1.65	1.50	1.27	1.49
PRR (One Year)	7.17	7.41	7.72	7.78	6.83
Equity Ratio	44.34	43.70	42.28	38.48	38.14
Modified Equity	28.26	26.26	25.26	22.67	22.62
Operating Revenue/Mile	\$10,738.14	\$10,868.23	\$11,739.01	\$14,030.36	\$15,168.75
General Fund/Total Plant	0.77	1.58	0.25	1.75	1.22
Current Ratio	0.74	1.03	0.88	1.12	0.97
Operating Margins/Rate Base	0.52	0.32	-0.24	-1.34	0.13
Rate of Return on Rate Base	3.32	2.69	2.03	1.71	3.72
Pat Cap Retired/Total P Cap	8.25	8.38	9.28	9.41	9.31
Pat Cap Retired/Net Margins	9.86	8.19	14.73	-1.69	-0.07

III-F8 The Times Interest Earned (TIER) Ratio dropped significantly from 2002 and was a major driver in the rate case and subsequent increase in 2006.

Loan covenants and good practice require a TIER of between 1.25 and 2.0 be maintained on an annual basis. RUS requires a TIER of 1.25 and it is not uncommon for the Commission to set rates in rate cases to achieve a 2.0 TIER . The results dropped precipitously in 2004 and again in 2005, reaching a low of .67 that year. The rate increase that occurred in mid-2006 resulted in some improvement and expectations are that in 2007 there will be continued improvement.

Most other ratios in the Exhibit above reflect the deterioration in financial results and subsequent beginnings of a recovery in 2006.



## Exhibit III-3 Employee Costs

	2002	2003	2004	2005	2006
Number of Employees	44.00	43.00	43.00	48.00	52.00
Average Rate Per Hour	\$19.87	\$21.03	\$21.30	\$22.35	\$23.04
Overtime Hours/Total Hours	8.92	12.11	13.66	13.05	9.69
Capitlzd Payroll/Total Payroll	30.82	26.88	28.47	28.21	27.07

There are a few observations that can be made from observing the Exhibit above.

- Total staffing increased by 8 employees from 2002 to 2006.
- Average rate per hour has increased a total of 16% over four years.
- Overtime has varied from 9% to 14%
- The amount of labor spent on capital projects has remained at a level of 27% to 31%.

## Focused Management Audit of Cumberland Valley Electric

# Exhibit III-4 MWH Sold

	2002	2003	2004	2005	2006
MWH Sold/1000	464.57	453.75	467.60	499.45	493.69
Annual % Chg in KWH Sold	0.96	-2.33	3.05	6.81	-1.15
MWH/Mile of Line	189.85	183.07	186.84	197.49	192.94
Revenue/MWH(Resd ex Sea)	\$57.46	\$59.28	\$63.22	\$71.24	\$80.58
Op Rev/MWH (Total Sales)	\$56.56	\$59.37	\$62.83	\$71.04	\$78.62
OpRev less cost Power/MWH	\$16.87	\$17.53	\$17.14	\$16.85	\$20.55
Cost of Power/MWH Sold	\$39.69	\$41.84	\$45.69	\$54.19	\$58.07
Comm+Ind+IRR MWH/Total MWH	34.30	32.97	35.14	35.52	37.28
O+M+A&G+Cust Acct Exp/MWH	\$9.89	\$10.56	\$10.68	\$10.64	\$12.07

There are a few observations that can be made from observing the Exhibit above.

- Sales have varied annually from 2002 to 2006, with a total increase of 6.3% over four years. This is not uncommon and generally reflects weather or economic conditions. An average increase of almost 1.5% is in line with general utility expectations.
- Revenue per MWH reflects the increased costs of energy from East Kentucky.



# **Exhibit III-5 Operating Ratios**

	2002	2003	2004	2005	2006
Elec Inv Turnover Ratio	2.60	2.66	2.81	2.44	2.28
Elec Inv EOY/Total Plant	0.45	0.45	0.50	0.71	0.69
Constr WIP/Plant Additions	2.26	0.40	1.71	11.13	6.92
Net New Service/Total Service	2.70	2.20	1.84	1.98	2.03
Idle Service/Total Service	2.13	1.42	0.46	1.03	1.96
Annual Load Factor	46.64	43.68	42.55	44.79	43.86
System Loss	4.12	4.73	4.29	4.76	4.77
Tot Hrs Outage per Cons (1 year)	1.25	1.60	2.15	1.74	2.68
Amt Over 60 days/Oper Rev	0.24	0.33	1.05	0.87	0.74
Amt Written Off/Oper Rev	0.33	0.52	0.58	0.55	0.63
Other Intr Inc-Exp/\$1000 Plt	0.44	0.08	1.07	1.16	1.44

Most of the ratios in the Exhibit above have remained relatively constant over the five year period except for Amounts written off. During discussions, Management acknowledged that this measure had crept up, but indicated it was still well below industry norms.

# Exhibit III-6 Consumer Ratios

	2002	2003	2004	2005	2006
Average Total Consumers Served	23,776	24,500	25,224	23,029	23,303
Consumers/Mile (Density)	9.86	10.03	10.22	9.16	9.16
Consumers/Employees	548.57	578.14	594.74	482.75	450.58
Long Term Debt/Consumer	\$884.75	\$972.42	\$983.04	\$1,248.76	\$1,281.89
Dist+Gen Plant/Consumer	\$2,264.72	\$2,312.90	\$2,360.26	\$2,743.68	\$2,880.57
Net Margins/Avg Consumer	\$86.08	\$65.79	\$2.08	-\$17.36	\$11.79
Avg Mo KWH/Resd Cons Ex Sea	1138.54	1101.07	1067.15	1240.51	1,180.29
Avg Mo KWH/Resd Cons	1138.54	1101.07	1067.15	1240.51	1,180.29
Cust Acct Exp/Avg Cons	\$37.13	\$35.24	\$37.98	\$52.26	\$58.74
Adm & Gen Exp/Avg Cons	\$41.26	\$41.78	\$43.51	\$47.04	\$56.19
Cust Serv & Info/Avg Cons	\$5.96	\$6.36	\$5.86	\$8.84	\$8.31
O+M+A&G+Cust Acct/Avg Cons	\$193.17	\$195.64	\$198.01	\$230.85	\$255.69
Pwr cost+Tax+Dep+Int/Avg Cons	\$893.36	\$889.32	\$962.59	\$1,321.24	\$1,396.55

The most striking result shown in the Exhibit above is the Net Margin per Customer which dropped remarkably in 2004 and 2005.

# Exhibit III-7 Plant Investment

	2002	2003	2004	2005	2006
Total Plant/1000	\$56,176.73	\$58,968.71	\$61,879.71	\$65,495.37	69,304.29
Total Plant/MWH Sold	\$120.92	\$129.96	\$132.33	\$131.14	140.38
Total Plant/Mile of Line	\$22,957.39	\$23,791.14	\$24,724.79	\$25,897.74	27,084.47
O+M exp/\$1000 Total Plant	\$48.58	\$49.28	\$47.50	\$46.25	47.33
Taxes/\$1000 Total Plant	\$0.56	\$0.53	\$0.49	\$0.48	0.52
Accum Deprec/Plant in					
Service	35.79	36.20	36.41	36.66	36.49
Net New Plant/Total Plant	5.50	4.97	4.94	5.84	5.82
General Plant/Consumer	\$111.49	\$118.87	\$120.29	\$143.98	153.18
Headqtr Plant/Consumer	\$59.40	\$58.58	\$56.94	\$63.83	63.20
LONG TERM DEBT					
LTD/Total Assets	42.58	44.59	45.20	48.10	48.89
Interest LT/Avg LTD	4.26	3.74	3.55	4.49	5.44
RUS Debt/Total LTD	74.66	78.61	80.46	83.97	88.64
REVENUE					
Interest Exp/Op Revenues	3.59	3.16	2.98	3.42	4.13
Int Exp/Op Rev-Power Costs	12.05	10.70	10.91	14.42	15.81
Cost of Power/Op Revenues	70.17	70.47	72.71	76.28	73.86

III-F9 <u>Line losses at three substations are significantly higher than all other substations, but are being addressed through future construction plans.</u>

During our review, we analyzed the "Rolling Annual CVE Line Loss Report by Substation" to assess system losses. This report addressed fifteen substations. Twelve of the fifteen substations had losses between 0.4% and 7.4%. We discussed the specific plans for improving the three of the four worst sub-stations.<sup>5</sup>

- Emanuel Substation experienced a 7.0% loss in 2006. A new substation is being constructed at Liberty Church, reducing the length of the distribution feed.
- Jellico Creek experienced an 8.6% loss in 2006. This substation is being upgraded to 25KV.
- Hinkle Substation had a 7.7% loss in 2006. Losses are due to the length of this line, 22 miles to the last feeder. The line is being upgraded to 25KV.

<sup>&</sup>lt;sup>5</sup> / DR 140.



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# Exhibit III-8 Rolling Annual CVE Line Loss Report by Substation

January 2006 through December 2006

		kWH	kWH	Difference	Percent
Sub No	Sub Name	Purchased	Sold	(C-D)	Loss
E23	Chad	27904714	27208937	695777	2.5%
E50	Pine Mountain	35552202	35155992	396210	1.1%
E51	Bledsoe	25851121	24884144	966977	3.7%
E64	Oven Fork	27403959	26700634	703325	2.6%
E73	Arkland	14677702	14619600	58102	0.4%
E21	Emanuel	58592550	54482864	4109686	7.0%
S22	Rockholds	35103441	33409986	1693455	4.8%
S26	Cumberland Falls	30077738	27843045	2234693	7.4%
S41	Jellico Creek	8556052	7821532	734520	8.6%
S45	S. Corbin	38953897	36905877	2048020	5.3%
S48	N. Corbin	40970833	39022994	1947839	4.8%
S53	Hinkle	37025969	34190601	2835368	7.7%
S84	Goldbug	51661277	49704440	1956837	3.8%
S85	Carpenter	62552931	59700521	2852410	4.6%
S87	Bacon Creek	24132152	23502562	529590	2.6%
Totals		519016538	495153729	23862809	4.6%

## STATISITCAL COMPARISON

A comparison of CVE to the other fifteen EKPC Cooperatives also provides some insight.

- CVE's miles of line are a bit less in total, but increased more than the rest of the group since 2001.
- Density of customers is consistent, as is the operating cost per mile.
- The average cost per customer is slightly less than the comparison group.

The table comparing CVE and all other utilities in Kentucky shows that CVE has very consistent costs with the entire state.

# Exhibit III-9 Change in Plant Investment Since 2001

Category	Amount	Change since 2001
Miles of Line for CVE	2,529 miles	4.9%
Miles of line for EKPC Ave.	3,401 miles	2.3%
Density Customers per mile CVE	9.1	-4.2%
Density Customers per mile EKPC Ave.	9.0	5.9%
Operating cost per mile CVE	\$2,186	24.8%
Operating cost per mile EKPC	\$2,277	19.7%
Total # Customers Billed - CVE	23,029	0.3%
Total # Customers Billed - EKPC	30,776	9.0%
Ave. Expense per customer - CVE	\$240	30.4%
Ave. Expense per customer - EKPC	\$255	12.8%
Total Residential Revenues - CVE	\$22.9 Million	38.4%
Total Residential Revenues - EKPC	\$32.6 Million	39.6%

Exhibit III-10 Operating Expense Statistical Comparisons

Cooperative Name	Distribution Operations \$/mile	Distribution Maintenance \$/mile	Tot Op & Maintenance \$/ mile	Customer Accounting \$/mile	Customer Information \$/mile	General & Admin \$/mile	Ave. Mo. Residential Revenue (\$)
Big Sandy Recc	509	1,082	1,591	685	127	1,184	96.5
Blue Grass Energy Coop	504	844	1,348	528	152	633	100.0
Clark Energy Coop	466	586	1,174	360	43	486	92.7
Cumberland Valley Electric	501	701	1,202	474	82	428	88.4
Farmers Recc	260	541	801	280	60	447	88.2
Fleming-Mason Energy	316	948	1,264	397	27	316	98.8
Grayson Recc	361	703	1,064	342	70	481	96.2
Inter-County Energy	504	357	861	434	140	469	105.2
Jackson Energy Coop	613	531	1,244	568	63	550	109.1
Licking Valley Recc	546	574	1,122	312	76	616	88.3
Nolin Recc	818	849	1,567	577	220	744	102.3
Owen EC	651	727	1,378	808	65	521	90.2
Salt River Electric	516	470	986	493	103	608	99.0
Shelby Energy Coop	594	645	1,239	374	88	323	103.0
South Kentucky Recc	470	706	1,1176	470	85	480	89.0
Taylor County Recc	444	358	802	288	39	389	85.7
EKPC Group Average	506	676	1,182	450	90	555	96.1
Jackson Purchase Energy	420	936	1,356	350	87	560	80.6
Kenergy Corp	516	1,171	1,787	401	46	439	63.9
Meade County Recc	596	807	1,403	412	54	385	69.4
Big Rivers Group Average	544	971	1,515	388	56	461	79.3
Hickman-Fulton Counties Recc	411	969	1,360	257	33	580	116.7
Pennyrile Recc	581	581	1,162	372	64	454	102.8
Tri-County EMC	769	531	1,300	430	101	348	99.5
Warren Recc	653	939	1,572	521	143	766	106.5
West Kentucky Recc	672	1,335	2,007	606	76	426	105.6
TVA Group Average	617	867	1,484	437	83	515	103.9
Overall Average	534	753	1,287	439	86	535	95.6



## E. PROCUREMENT POLICIES & PROCEDURES

CVE has formal policies and procedures for procuring services, equipment, commodities and supplies. These policies and procedures are included in CVE's Manual of Policies and Procedures.<sup>6</sup> All policies and procedures are approved by the Board of Directors and are reviewed and updated on a regular basis.

Several specific items were mentioned in the Attorney General's motion for conduct of a management audit including purchases from Knox Auto Parts, construction bids and contracts, right-of-way maintenance bids and contracts, free or reduced electric rates to schools and churches, and the purchase of a bulldozer.

CVE management states that it never provided discounts to schools and churches although it used to provide some construction, line relocation, line maintenance at no charge. This was seen as part of the Company's good neighbor/civic duty to the counties and citizens in their service territory. This was a Board policy that has been changed as a result of the AG's recent inquiries.

All these purchases were reviewed for the year ended December 31, 2006, and the review was extended to include selected other significant purchases. The results of the review are presented below.

# POLICY AND PROCEDURES FOR BID DEVELOPMENT, DISTRIBUTION, EVALUATION & COMMUNICATION WITH BIDDERS

III-F10 CVE has policies and procedures in place to govern procurement, including bids, evaluation of bids, purchasing, receiving and payment approval.

## **REVIEW OF SPECIFIC VENDORS/PURCHASES**

III-F11 Based on our review of bids, purchase orders, receiving reports, invoices and payment approvals for various contracts and purchases, adequate procurement and bid policies and procedures are in place, and no exceptions were noted.

We conducted the following reviews of specific vendors and purchases.

#### **Knox Auto Parts**

Total purchases from Knox Auto Parts in 2006 were \$9,471. Knox sells auto parts and plumbing and electrical supplies. The primary reason for purchasing auto parts and miscellaneous plumbing and electrical supplies from Knox is convenience.

<sup>&</sup>lt;sup>6</sup>/ DR 107 – Copy of all corporate policies and procedures that address hiring, contracting and procurement.



The review of purchases from Knox included all purchases in 2006. We reviewed purchase orders, receiving reports, invoices and payment approval for each 2006 purchase. All receiving reports for auto parts had vehicle numbers assigned, and proper approvals for purchase orders, invoices and payment authorization. No exceptions were noted in the review of purchase orders, receiving reports, invoices and payment approvals.

# **Baldwin Pole & Piling Company**

Total purchases from Baldwin Pole & Piling Co., Inc in 2006 were \$65,271. Baldwin is located in Bay Minette, Alabama. We reviewed purchase orders, receiving reports, invoices and payment approval for each 2006 purchase. All purchase orders and receiving reports had proper approvals, and proper approvals for invoices and payment authorization were noted. No exceptions were noted.

## **G&M Oil Company, Inc.**

Total purchases from G&M Oil Company, Inc. in 2006 were \$103,060. G&M is the local supplier of gasoline, diesel fuel, and oil. Prices are based on prevailing market prices and deliveries are made weekly to CVE's storage tanks. We reviewed purchase orders, receiving reports, invoices and payment approval for each 2006 purchase. All receiving reports had proper approvals, and proper approvals for purchase orders, invoices and payment authorization were noted. No exceptions were noted.

## Patterson & Dewar Engineers, Inc.

Total payments to Patterson & Dewar in 2006 were \$207,181. Patterson & Dewar provides engineering and mapping services, including preparation of a four-year Master Development Plan and providing monthly inspections of progress on the Plan. We reviewed invoices and payment approval for all 2006 payments. Proper approvals for invoices and payment authorization were noted.

III-F12 An analysis of all vendors with contracts above \$50,000 showed no unreasonable expenditures.

The reviews of specific contracts above were based to a large degree on the review of the following Exhibit<sup>7</sup>

<sup>&</sup>lt;sup>7</sup>/ DRs 106 & 108 – List of all suppliers of services and equipment of amounts over \$50,000. Supplement to DR 108 – selected purchase orders, invoices, bids & receiving reports.



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## Exhibit III-11 Vendors Paid over \$50,000

Vendor	2006			
Anthony G. Martin	\$50,670	Attorney for rate case.		
Baldwin Pole & Piping Company	\$65,271	Poles		
Commonwealth Administrators	\$52,786	Medical Admin – Health Ins.		
Department of Revenue	\$581,844	Taxes		
East Kentucky Power - Power Bill	\$29,066,578	Power bill		
East Kentucky Power Cooperative	\$49,649	SCADA Supplies ETS.		
East Kentucky Power - Medical Ins.	\$614,987	Medical insurance.		
Electrical Sales Engineers	\$167,109	Construction materials		
Federated Rural Electric, Inc.	\$227,050	Property, auto, workers comp ins.		
Five C Construction	\$634,933	Const contract – see analysis.		
G & M Oil Company, Inc.	\$103,060	Furl & oil – see analysis		
Hunt Technologies, Inc.	\$356,060	Maintains Turtle (AMR)		
Internal Revenue Service	\$708,298	Payroll taxes		
Kentucky State Treasurer	\$334,797	State income tax		
Ky Association of Electric Coop's	\$173,465	Dues, magazine & materials		
Kentucky Dept of Revenue - School Tax	\$1,144,361	School tax		
Lay Tree & Brush Company, Inc.	\$615,080	Right-of-way cont. – see analysis		
N.I.S.C.	\$257,449	IT vendor for software & system		
N.R.E.C.A.	\$529,492	Dues and insurance		
Patterson & Dewar	\$207,181	Engineering ser. – see analysis		
Phillips Tree Experts, Inc.	\$150,070	Right-of-way cont. – see analysis		
Ronald L. Wilhite	\$60,758	Consultant – management audit		
Shelton's Construction Company	\$700,004	Const contract – see analysis		
Sheriff, Whitley County	\$116.019	Taxes		
Tennessee Valley Electric	\$266,703	Construction materials		
United Utility Supply	\$651,944	Construction mat. – see analysis		
Visa	\$74,410	Miscellaneous outside purchases		
Worldwide Equipment, Inc.	\$92,798	Vehicle purchases – see analysis		

## Review of Equipment Purchases – 2006

III-F13 The only equipment purchased in 2006 was two GMC Trucks. Proper bids were received and invoices and payment had proper approvals.

Two GMC trucks for \$46,399 each were purchased from Volunteer Volvo and GMC, Inc, Knoxville, Tennessee, which was the low bidder. We reviewed the solicitation, bids, purchase order, invoice and payment authorization. Only two bids were received. The high bid was from the local Chevrolet dealer for \$48,193 per vehicle.

# Policy and Procedures for Bid Development, Distribution, Evaluation & Communication With Bidders

III-F14 CVE has policies and procedures in place to govern procurement, including bids, evaluation of bids, purchasing, receiving and payment approval.

## **Review of Specific Contracts**

Review of contracts, vendors and specific purchases identified by Attorney General.

III-F15 Based on our review of bids, purchase orders, receiving reports, invoices and payment approvals for various contracts and purchases adequate procurement and bid policies and procedures are in place, and no exceptions were noted.

We conducted the following reviews.

- Knox Auto Parts Reviewed purchase orders, receiving reports, invoices and payment approval for 2006 purchases. All receiving reports had vehicle numbers assigned, and proper approvals for invoices and payment authorization.
- <u>Baldwin Pole & Piling Company</u> Reviewed purchase orders, receiving reports, invoices and payment approval for 2006 purchases. All receiving reports had proper approvals, and proper approvals for invoices and payment authorization were noted.
- <u>G&M Oil Company, Inc.</u> Reviewed purchase orders, receiving reports, invoices and payment approval for 2006 purchases. All receiving reports had proper approvals, and proper approvals for invoices and payment authorization were noted.
- <u>Patterson & Dewer</u> Reviewed invoices and payment approval for 2006 purchases. Proper approvals for invoices and payment authorization were noted.

## Review of Equipment Purchases - 2006

III-F16 The only equipment purchased in 2006 was two GMC Trucks. Proper bids were received and invoices and payment had proper approvals.

Two GMC trucks for \$46,399 each were purchased from Volunteer Volvo and GMC, Inc, Knoxville, Tennessee, which was the low bidder.<sup>8</sup>

<sup>8 /</sup> DR 109.



#### Review of Construction Contracts - 2002 to 2008

III-F17 The calendar years 2007-2008 construction contract was properly bid, evaluated and awarded in October/November 2006. The request for bids included the notice that CVE may provide some CVE equipment to the selected bidder.

We reviewed the bid documents and the evaluation of bids for the 2007-2008 construction contract.

We reviewed the bid documents and the evaluation of bids, and did some test of transactions to review selected invoices, time reports, and authorization for payment on the 2006 construction contracts.

We also reviewed the bid documents, the evaluation of bids, and the contracts for 2002 through 2006.

CVE had construction contracts with two companies in 2006. Shelton Construction Company, 6175 East Highway 92, Williamsburg, KY 40769, and Five C Construction Company, 346 Turner Road, Gray, KY 40734.

Shelton Construction Company went out of business in December 2006. The construction contract for calendar years 2007-2008 was bid in October/November 2006. Solicitations were sent on October 31, 2006 to:

Pike Electric, Inc., P.O. Box 868, 100 Pike Way, Mount Airy, North Carolina 27030;

Five C Construction Company, 346 Turner Road, Gray, KY 40734;

Dobson Power Line Construction Co., Inc, 7696 Harrodsburg Road, Nicholasville, KY 40356;

Richardson Contracting (Bowlin Group), P.O. Box 250, Owenton, KY 40359.

These solicitations included the following language.

"It should be understood that Cumberland Valley Electric, Inc. may provide all or part of the equipment, at its expense, for the construction of its power lines."

Bids were received from Pike Electric, Inc., Five C Construction Company and Richardson (Bowlin Group). The bids were evaluated by the CVE accounting department, and the low bidder was Five C Construction Company. After approval by the General Manager and the Board of Directors the 2007-2008 contract was awarded to Five C Construction Company.

To determine if invoices conformed to contract terms, we reviewed selected invoices for Five C Construction Company under the 2005-2006 contract. The invoices for December 2005 and November 2006 were selected for review. We traced hours from the time reports of the crews to the work orders and to the invoices. No exceptions were noted.

We reviewed the bid documents, the evaluation of bids, and the contracts for 2002 through 2006. The solicitation, bid evaluation and contract terms were consistent throughout this period, and the low bid and contracts were properly approved by the General Manager and the Board of Directors.

## Review of Rights of Way Contracts – 2002 to 2006

III-F18 The calendar years 2007-08 rights of way contract was properly bid, evaluated and awarded in October/November 2006. The request for bids included the notice that CVE may provide some CVE equipment to the selected bidder.

We reviewed the bid documents and the evaluation of bids for the 2007-08 <u>rights of way</u> contract.<sup>9</sup>

We reviewed the bid documents and the evaluation of bids, and did some test of transactions to review selected invoices, time reports, and authorization for payment on the 2006 rights of way contract.

CVE's rights of way contract in 2006 was with Lay Tree & Brush Company, Inc., P.O. Box 1411, Barbourville, KY 40906. Lay Tree & Brush Company, Inc. was sold in November 2006 and became Phillips Tree Experts, Inc., P.O. Box 664, Corbin, KY 40702.

The rights of way contract for calendar years 2007-2008 was bid in October/November 2006. Solicitations were sent on October 31, 2006 to:

Phillips Tree Experts, Inc., P.O. Box 664, Corbin, KY 40702;

Asplundh Tree Expert Company, 202 Two Oaks Drive, Nicholasville, KY 40356;

Townsend Tree Service, 101South Main Street, Parker City, Indiana 47368.

These solicitations included the following language.

"It should be understood that Cumberland Valley Electric, Inc., at its discretion, may choose to provide a portion or all of the equipment, related above."

Bids were received from Phillips Tree Experts, Inc., Asplundh Tree Expert Company, and Townsend Tree Service. The bids were evaluated by the CVE accounting department, and the low bidder was Phillips Tree Experts, Inc.. After approval by the General Manager and the Board of Directors the 2007-2008 contract was awarded to Phillips Tree Experts, Inc..

To determine if invoices conformed to contract terms, we reviewed selected invoices for Lay Tree & Brush Company, Inc., under the 2005-2006 contract. The invoices for December 2005 January 2006, and September 2006 were selected for review. We traced hours from the time reports of the crews to the work orders and to the invoices. The review looked particularly

<sup>9 /</sup> DR 116.



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for any overtime hours billed, and to verify contract rates were being charged. No overtime hours were billed in the sample reviewed and no rate exceptions were noted.

We also reviewed the bid documents, the evaluation of bids, and the contracts for 2002 through 2006. The solicitation, bid evaluation and contract terms were consistent throughout this period, and the low bid and contracts were properly approved by the General Manager and the Board of Directors.

III-F19 CVE places great emphasis on maintaining its rights of way on a consistent basis, budgets expenditures at a consistent level, and spends the budget amount with only small variances

The following Exhibit reflects CVE's consistent policy of maintaining rights of way constantly rather than experiencing the peaks and valleys of neglect, growth and weather. CVE Management regularly visits sections of rights of way throughout the service area to insure they are well maintained.

## Focused Management Audit of Cumberland Valley Electric

## Exhibit III-12 Right Of Way Maintenance Expenses

	2002	2003	2004	2005	2006
ROW Cutting - Budet	\$866,952	\$807,739	\$778,637	\$723,805	\$729,227
ROW Cutting - Actual	\$776,009	\$755,797	\$710,523	\$700,194	\$733,136
ROW Cutting Variance	\$90,943	\$51,942	\$68,114	\$23,611	-\$3,909
ROW Materials - Budget	\$10,501	\$6,432	\$6,498	\$5,301	\$3,623
ROW Materials - Actual	\$5,725	\$6,288	\$4,690	\$3,840	\$4,459
ROW Materials - Variance	\$4,776	\$144	\$1,808	\$1,461	-\$836
Bushhogging - Budget	\$46,101	\$98,811	\$92,160	\$147,188	\$145,507
Bushhogging - Actual	\$69,634	\$87,507	\$148,380	\$145,506	\$188,410
Bushhogging - Variance	-\$23,533	\$11,304	-\$56,220	\$1,682	-\$42,903
Total - Budget	\$923,554	\$912,982	\$877,295	\$876,294	\$878,357
Total - Actual	\$851,368	\$849,592	\$863,593	\$849,540	\$926,005
Total - Variance	\$72,186	\$63,390	\$13,702	\$26,754	-\$47,648

III-F20 The 2007-08 rights of way contract was properly bid, evaluated and awarded in October 2006. The request for bids included the notice that CVE may provide some CVE equipment to the selected bidder.

We reviewed the bid documents and the evaluation of bids, and did some test of transactions to review selected invoices, time reports, and authorization for payment on the 2006 contract.

## **Review of Vendor/Employee Relationships**

III-F21 No vendor/employee relationships were noted.

To assess the possibility of vendor/employee relationships we obtained a listing of all vendors with 2006 purchases of over \$50,000<sup>10</sup>, and a list of all employees with family relationships to other employees.<sup>11</sup>

We inquired whether or not any purchases were made from any vendor with any relationship to any CVE employee, and received assurance that none were made.

#### Free or Reduced Rates to Churches & Schools

III-F22 CVE has never provided free or reduced rates for electricity provided to churches or schools in compliance with Kentucky Public Utility Commission policy/rules.

Management states that it never provided free or reduced rates to schools and churches. CVE used to provide some construction, line relocation, line maintenance etc. for schools and churches at no charge. This was seen as part of the Company's good neighbor/civic duty to the counties and citizens in their service territory. This was a Board policy that has been changed as a result of the AG's recent inquiries.

 $<sup>^{11}</sup>$ / DR 104 – List of all employees who have relatives working in the Company, their relationship, and when each started work at CVE.



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<sup>&</sup>lt;sup>10</sup>/ DR 106 - List of all suppliers of services and equipment of amounts over \$50,000.

# F. ACCOUNTING, BUDGET AND PAYMENT POLICIES & PROCEDURES

## **BUDGET ANALYSIS**

A review of both the 2007 and the 2005 vs. 2006 budget analysis was performed to discern any major changes or concerns. In general actual costs were in line with expectations. Increase in revenue for 2007 reflect the full year effect of the rate case, as does changes in margins and financial ratios.<sup>12</sup>

# Focused Management Audit of Cumberland Valley Electric

# Exhibit III-13 2007 Budget

Operating Revenue	\$42,777,435
Cost of Purchased Power	\$31,502,811
Operation and Maintenance	\$3,429,109
Customer Accounts Expense	\$1,378,059
Customer Service Expense	\$212,119
Administrative Expense	\$1,289,209
Depreciation	\$2,334,885
Tax Expense	\$37,145
Interest on Long-Term Debt	\$1,679,828
Interest Expense - Other	\$54,477
Other Deductions	\$65,888
Total Expenses	\$41,983,530
Net Operating Margins	\$793,905
Non Operating Margins - Interest	\$150,748
Other Capital Credits and Patronage	
Dividends	\$80,106
Total Patronage Capital Margins	\$1,024,759
TIER	1.61
Operating TIER	1.47

<sup>&</sup>lt;sup>12</sup> / DR 113.



Exhibit III-14 2005 vs. 2006 Budget Analysis

	2005	2006	2006 Budget	% Change 05 vs. 06	% 2006 Bud Vs Actual
Operating Revenue and Patronage Capital	\$35,482,774	\$38,814,111	\$36,055,635	9.4%	7.1%
2. Power Production Expense	, , ,	. , ,	, ,		
3. Cost of Purchased Power	\$27,066,826	\$28,668,028	\$26,585,080	5.9%	7.3%
4. Transmission Expense					
5. Distribution Expense - Operation	\$1,263,088	\$1,211,481	\$1,273,739	-4.1%	-5.1%
6. Distribution Expense - Maintenance	\$1,766,341	\$2,068,379	\$1,754,956	17.1%	15.2%
7. Customer Accounts Expense	\$1,203,565	\$1,368,895	\$1,165,699	13.7%	14.8%
8. Customer Service and Informational Expense	\$203,576	\$193,588	\$167,871	-4.9%	13.3%
9. Sales Expense					
10. Administrative and General Expense	\$1,083,316	\$1,309,495	\$1,168,079	20.9%	10.8%
11. Total Operation & Maintenance Expense (2 thru 10)	\$32,586,712	\$34,819,866	\$32,115,424	6.9%	7.8%
12. Depreciation and Amortization Expense	\$2,115,490	\$2,235,508	\$2,160,396	5.7%	3.4%
13. Tax Expense - Property & Gross Receipts					
14. Tax Expense - Other	\$31,226	\$36,063	\$32,163	15.5%	10.8%
15. Interest on Long-Term Debt	\$1,213,379	\$1,604,208	\$1,442,805	32.2%	10.1%
16. Interest Charged to Construction - Credit					
17. Interest Expense - Other	\$56,547	\$49,951	\$53,263	-11.7%	-6.6%
18. Other Deductions	\$63,616	\$9,451	\$8,709	-85.1%	7.9%
19. Total Cost of Electric Service (11 thru 18)	\$36,066,970	\$38,755,047	\$35,812,760	7.5%	7.6%
20. Patronage Capital & Operating Margins (1 minus 19)	-\$584,196	\$59,064	\$242,875	-110.1%	-311.2%
21. Non Operating Margins - Interest	\$132,467	\$149,565	\$124,673	12.9%	16.6%
22. Allowance for Funds Used During Construction					
23. Income (Loss) from Equity Investments					
24. Non Operating Margins - Other					
25. Generation and Transmission Capital Credits					
26. Other Capital Credits and Patronage Dividends	\$51,913	\$66,194	\$19,693	27.5%	70.2%
27. Extraordinary Items					
28. Patronage Capital or Margins (20 thru 27)	-\$399,816	\$274,823	\$387,241	-168.7%	-40.9%



# **Accounting Policies & Procedures**

III-F23 CVE has formal accounting policies and procedures in place which comply with RUS requirements for recording transactions and reporting financial results.

CVE uses the Uniform System of Accounts – Electric as defined in Bulletin 1767-B – 1, Rural Utilities Service (RUS), United States Department of Agriculture (USDA).<sup>13</sup> Bulletin 1767-B – 1 describes the accounting policies and procedures found in 7 CFR Part 1767, Accounting Requirements for RUS Electric Borrowers. The Bulletin describes the prescribed content of every account, and in case of unusual, non-recurring types of transaction actually demonstrates journal entries and account numbers to be used in recording the transactions.

Using the RUS Uniform System of Accounts insures that like kind transaction are grouped and recorded consistently, and improves the comparability of financial and operating reports among electric cooperatives and for CVE operations year-to-year.

CVE produces monthly financial statements in the form of the RUS Financial and Statistical Report, RUS Form 7 (Rev. 10-00)<sup>14</sup>. Detailed instructions for preparation of these monthly reports are include in RUS Bulletin 1717-B – 2. These reports include Part A. Statement of Operations, Part B. Data on Transmission and Distribution Plant, and Part C. Balance Sheet. The report also includes month and year-to-date numbers by class of service including number of customers, kWh sold, and revenue.

The RUS Uniform System of Accounts incorporates all accounting standards of the Financial Accounting Standards Board (FASB).

We obtained copies of the monthly Financial and Statistical Reports for 2002 through 2006. These reports include financial and operating data for the year-to-date last year, year-to-date this year, year-to date budget, and the current month. Our review of these reports indicated they were complete and timely filed.

CVE produces annual general purpose financial statements which are audited by an independent auditor. We obtained copies of the reports of the independent auditor for 2003 through 2006. According to these audit reports, the audits were conducted in accordance with generally accepted auditing standards, the standards applicable to financial audits contained in Government Auditing Standards issued by the Comptroller General of the United States, and 7 CFR Part 1773, Policy on Audits of the Rural Utilities Service (RUS) Borrowers.

These audits included the required comments on internal control over financial reporting and compliance with specific RUS loan and security instrument provisions as required in 7 CFR Part 1773.33. The reports also included the auditor's comments on other matters including the disclosure of material related party transactions, in accordance with Statement

<sup>&</sup>lt;sup>14</sup>/ DR 117 - Copies of all financial reports for the past five (5) years.



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<sup>&</sup>lt;sup>13</sup>/ DR 111- - Copies of all accounting procedures.

of Financial Accounting Standards No. 57, Related Party Transactions, and as addressed at 7 CFR 1773.33(h).

The reports of the independent auditor for years 2003 through 2006 noted that CVE was in compliance with RUS loan and security instrument provisions. The reports did not note any material weaknesses in internal control over accounting procedures and records, the process for accumulating and recording costs and expenses, or the materials controls. The reports indicated that CVE was in compliance with requirements to disclose any material related party transactions.

III-F24 CVE has formal budgeting policies and procedures in place which comply with RUS requirements for operating budgets, O&M budgets, capital budgets, and budget reporting. 15

Details of annual operating, O&M, and capital budgets are broken down into RUS Uniform System of Accounts objects and categories for inclusion in the monthly Financial and Statistical Reports. Annual budgets are prepared in October/November and submitted to the Board of Directors for approval in December. Various components of the budget are prepared under the supervision of the following employees.

- Operating Budget Office Manager.<sup>16</sup>
- Capital Budget Engineering Engineering Manager. 17
- Capital Budget Construction Construction Superintendent. 18
- Capital Budget Office & Accounting Information Systems Administrator. 19
- O&M Budget Engineering Manager.

CVE develops a 4-Year Work Plan for construction and maintenance of its distribution system.<sup>20</sup> The most recent Plan was prepared in 2006 with the help of Patterson & Dewar Engineers and approved by the Commission in March 2007. Patterson & Dewar also conducts quarterly reviews of progress on the Plan

<sup>&</sup>lt;sup>20</sup>/ Interview 105 - Mark Abner - Engineering Manager - 1/30/07 - 2:00 PM.



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 $<sup>^{\</sup>rm 15}/\,$  DR 113 – Copy of all O&M and Capital budgets for the last five years along with any deviation analysis conducted.

<sup>&</sup>lt;sup>16</sup>/ Interview 106 - Robert Tolliver, Office Manager - 1/30/07 - 3:15 PM.

<sup>&</sup>lt;sup>17</sup>/ DR 113 - Copy of all O&M and Capital budgets for the last five years along with any deviation analysis conducted.

 $<sup>^{18}/</sup>$  DR 113 – Copy of all O&M and Capital budgets for the last five years along with any deviation analysis conducted.

 $<sup>^{19}/</sup>$  DR 113 – Copy of all O&M and Capital budgets for the last five years along with any deviation analysis conducted.

III-F25 CVE has formal accounting policies and procedures in place for processing purchase orders, invoices, receiving reports and payment approval.

A major objective of this focused management audit was to assess the accounting policies and procedures in place for processing purchase orders, invoices, receiving reports and payment approval. These procedures are a combination of organization structure, people, assignment of responsibilities, written policies and procedures, and training of staff.

The review supporting this finding included obtaining a current organization chart,<sup>21</sup> obtaining a staffing listing by department,<sup>22</sup>, reviewing written policies and procedures,<sup>23</sup> and interviewing personnel who implement the procedures on a daily basis.

Details of duties of various employees, the separation of duties and the degree of internal control present are discussed below in the Section on Internal Control.

The organization of the business department is appropriate for CVE's operations. The overall experience of the employees is excellent, with individuals' experience at CVE ranging from a few months to 30 years.

Based on interviews with the Office Manager<sup>24</sup>, the Information Systems Administrator<sup>25</sup>, the Billing Supervisor<sup>26</sup>, the Accounting Supervisor/Internal Auditor<sup>27</sup>, and the Assistant Bookkeeper,<sup>28</sup> employees understand their duties and responsibilities, are well versed in the Company's accounting policies and procedures, and have the appropriate training and experience for their position.

## **ACCOUNTING SYSTEM**

III-F26 CVE's accounting system is automated using IVUE software provided and supported by National Information Solutions Cooperative (NISC).

NISC is an information technology company (user owned cooperative) that develops and supports software and hardware solutions for its Member/Owners who are primarily utility

<sup>&</sup>lt;sup>28</sup>/ Interview 115- Karen Hampton - Assistant Bookkeeper - 2/01/07 - 9:00AM.



<sup>&</sup>lt;sup>21</sup>/ DR 101 - Organization chart for the entire Company.

<sup>&</sup>lt;sup>22</sup>/ DR 102 - Staffing list by department.

<sup>&</sup>lt;sup>23</sup>/ DR 107 – Copy of all corporate policies and procedures that address hiring, contracting, and procurement.

<sup>&</sup>lt;sup>24</sup>/ Interview 106 - Robert Tolliver, Office Manager - 1/30/07 - 3:15 PM.

<sup>&</sup>lt;sup>25</sup>/ Interview 109 – Jonathan Grove – Information Systems Administrator - 1/31/07 – 10:00 AM.

<sup>&</sup>lt;sup>26</sup>/ Interview 114- Linda White - Billing Supervisor - 2/01/07 - 8:00 AM.

<sup>&</sup>lt;sup>27</sup>/ Interview 108 - Barbara Elliot - Accounting Supervisor/Internal Auditor - 1/31/07 - 9:00 AM.

and telecommunications cooperatives across the nation. NISC has 450 Member/Owners in 47 states.<sup>29</sup>

III-F27 CVE is implementing an upgrade to NISC's new version of IVUE software in 2007.

NISC's IVUE software<sup>30</sup> is a fully integrated software package designed specifically for utility cooperatives. Key modules in the system follow.

## **Contact Tracking**

This module eliminates manual phone and customer contact logs. The system will log all contacts, both customer and non-customer and is fully integrated with other modules such as service orders, bill history, inquiry, etc. Contact events can be linked to provide a complete tracking of activity initiated by the first inquiry.

## **Customer Information System/Billing**

The IVUE customer information system/billing module tracks/processes many different customer billing related processes including service deposits, meter deposits, memberships, billing, refunding, accounts receivable, delinquencies, uncollectibles, payment assistance, payment arrangements and one-time or recurring miscellaneous charges or credits.

## **Payment Processing**

The payment processing module will handle many types of billings and payment media including E-Billing and payment, credit card or check payments, bank drafts, debit cards. Payment data is immediately validated and posted to customer accounts.

# **Cash Register**

This module integrates with the IVUE Customer Information System and IVUE Accounting and Business Solutions. It allows scanning devices, receipt/endorsement printers and physical cash drawers. It provides additional control over cash receipts by using drawer controls, user security and balancing routines, and preliminary and final deposit reporting.

## **Capital Credits**

The capital credits module is fully integrated with the customer information system for member mailing information, allocations and retirements. It handles patronage refunding. Uncollectible account records, current accounts receivable balances/previous unclaimed

 $<sup>^{30}/</sup>$  DR 136 – Copy of NISC brochure describing IVUE software, and Interview 109 - Jonathan Grove – Information Systems Administrator - 1/31/07 – 10:00 AM.



<sup>&</sup>lt;sup>29</sup>/ DR 137 - Copy of NICS brochure describing National Information Solutions Cooperative.

retired amounts can automatically be checked before refund checks are prepared. It also integrates with the general ledger system for check writing and check reconciliation.

#### **Service Orders**

From the customer's initial call to the completion of work at their site, this module can be used for tracking progress, costs, dates, and other key service order information. It integrates with the customer information system for connects, disconnects, meter exchanges, device installations/removal and other types of orders.

This software is an upgrade to CVE's present system. The kick-off meeting for the implementation is scheduled for May 1, 2007. Implementation is expected to take six months and go live on October 15, 2007. Training for the implementation and use of the system is scheduled to begin May 1, 2007. Training of users will be on-going throughout the five month implementation period.

- III-F28 CVE's accounting system process transactions and prepares internal and external reports accurately and timely.
- III-F29 CVE has adequate internal controls in place to control processing of transactions, conservation of assets, and control of cash receipts and disbursements.

Reviewing the adequacy of internal controls at CVE was a major objective of this focused management audit. Procedures performed in this review included:

- Interviews with key business office and operations personnel to identify duties performed and assess adequacy of separation of duties;
- Review of all comments regarding internal control by outside auditors for the past 5 years; (See discussion in other sections of this report);
- Tests of transactions related to bids, purchase orders, receiving reports, invoices and payment approval for several selected vendors; (See discussion in other sections of this report);
- Reviewed internal control procedures for cash receipts.

Separation of duties is a key element of internal control. This separation is particularly critical in internal control over cash, accounts receivable, processing invoices, and approving invoices for payment.

## **Purchase Orders**

General purchase orders are prepared/approved by the Office Manager.<sup>31</sup> Construction and maintenance purchase orders are prepared by the Engineering Department – General Clerk<sup>32</sup> and approved by the Engineering Manager.<sup>33</sup>

<sup>&</sup>lt;sup>31</sup>/ Interview 106 – Robert Tolliver, Office Manager – 1/30/07 – 3:15 PM.



## **Receiving Reports**

Receiving reports are prepared by the persons receiving the goods or services and forwarded to an Accountant in the Business Office for matching with purchase orders and invoices. Receiving reports for construction and maintenance purchases are assembled and forward by the Engineering – General Clerk.

#### **Invoices**

Invoices are collected/forwarded to the Accountant in the Business Office. The Accountant matches and verifies the purchase orders, receiving reports and invoices and prepares the invoices for payment.<sup>34</sup>

## **Payment Approval**

Invoices with purchase orders and receiving reports are forwarded to the Office Manager for payment approval.

## **Preparing and Mailing Checks**

Approved invoices are forwarded to the Assistant Bookkeeper for preparation and mailing of checks.<sup>35</sup>

During the tests of transactions described in other sections of this report, each transaction was reviewed for proper purchase orders, receiving reports, and payment approval. No exceptions were noted.

Separation of duties at CVE is adequate to provide good internal control over purchasing, receiving, and paying for goods and services.

# Cash Receipts<sup>36</sup>

Control of cash receipts is managed by the Office Manager. The General Clerks – Billing and General Clerks – Consumer Records collect cash receipts at the counter, the drive-by window and in the mail. Each clerk has a cash box which is received from and returned to the Office Manager daily. The General Clerks – Billing collect consumer and miscellaneous receipts. The General Clerks – Consumer Records collect memberships and reconnect fees.

- <sup>32</sup>/ Interview 116 Teresa Gregory Engineering General Clerk 2/01/07 10:00 AM.
- <sup>33</sup>/ Interview 105 Mark Abner Engineering Manager 1/30/07 2:00 PM.
- <sup>34</sup>/ Interview 108 Barbara Elliot Accounting Supervisor/Internal Auditor 1/31/07 9:00 AM.
- <sup>35</sup>/ Interview 115 Karen Hampton Assistant Bookkeeper 2/01/07 9:00 AM.
- <sup>36</sup>/ DR 138 Copy of internal control procedures for cash.



All receipts are posted to accounts receivable when received by the Clerk collecting the funds. A General Clerk – Consumer Records prepares the daily bank deposit. Delivery of the deposit to the bank is rotated each day (Monday through Friday) among five different employees.

Balancing of accounts receivable (billings) and cash receipts, and monthly bank reconciliations are performed by the Assistant Bookkeeper.

Separation of duties at CVE is adequate to provide good internal control over cash receipts.

### **G. INTERNAL AUDIT**

## *III-F30* CVE is in process of establishing an Internal Audit function.

Until recently CVE did not have an Internal Auditor of an internal audit function.<sup>37</sup> Late in 2006, CVE hired a CPA to fill the position of Accounting Supervisor & Internal Auditor. This position reports to the Office Manager, and in addition to responsibility for establishing an internal audit function has responsibility for preparation of budgets, preparation of RUS Form 7 reports, and monthly general purpose financial statements.

Combining these responsibilities potentially impairs the independence of the Internal Auditor, and weakens the internal audit function. The Internal Auditor should report to the Board of Directors, or to an Audit Committee of the Board. CVE is a small company with relatively few employees. This makes the establishment of a truly independent internal audit function difficult. CVE will need to develop some creative ways to provide the Internal Auditor with a proper degree of independence.

III-R3 CVE should investigate the possibility of establishing a joint internal audit function through a utility cooperative association, or a joint agreement with other utilities. (Refer to Finding III-F30.)

One alternative CVE could consider is utilizing the internal resources from another Cooperative or East Kentucky Power Cooperative, Inc., itself for audits of the financial areas. This would mitigate the conflict of the current Internal Auditor.

Another option may be to retain an Internal Auditor on a contract basis from an outside CPA firm.

# III-F31 A new labor agreement was entered into in September 2006.

This agreement was entered into with the United Steelworkers of America, AFL-CIO-CLC. Wage increases have been relatively modest over the last five years.

According to the GM, work rule flexibility has improved during the last twenty years.

<sup>&</sup>lt;sup>37</sup>/ DR 111 - Copies of all internal audits performed, and DR #118 - Procedures for internal audits.



There have been no Union grievances for many years. There is a four hour callout pay provision for all employees who are called out and two men are called out for all down lines.

III-F32 A formal safety program is in place and provides adequate training and rules.

Vantage conducted a review of the current safety manual. It is titled the APPA Safety Manual, thirteenth Edition, 2004. Produced by the American Public Power Association, 2301 M St., Washington, DC 20037-1484. It was written by Black & Veatch and the APPA Safety Committee and consists of 16 Sections totaling 228 pages.

According to management and employees numbered copies are distributed to all employees. Also regular training sessions are conducted by an instructor who performs monthly statewide sessions.<sup>38</sup>

## H. MISCELLANEOUS ISSUES

### **TRAINING**

III-F33 Currently there is no problem with training, however as employees are promoted and replaced, there could be issues.

The primary means of training most employees once they are hired is through On the Job Training(OJT). A new employee works with an experienced employee until Management is satisfied that the person is qualified. Since many field employees are hired from construction companies, CVE Management knows what their skill levels are before they are hired.

III-R4 Perform an assessment of training needs and identify deficiencies for individual employees and address any needs. (Refer to Finding III-F33.)

CVE cannot afford to have employees who are not fully trained. While a casual approach worked in the past, it would not be difficult to develop a formal tracking system and custom tailor training to each employee. This is important for all employees, but critical for field employees who must work near energized equipment.

Most training of craft employees is currently done on the job. While this process, plus the policy of hiring from the ranks of experienced contractors ensures a high level of general skills, it does not ensure that every employee is fully trained. The program should consist of the following steps or elements.

• Identify the positions for which training needs to be addressed. These include all field positions and any customer service positions where interface with the customer requires expertise.

<sup>&</sup>lt;sup>38</sup>/ Interview 111, - T Hoskins - Crew Leader, Cumberland District: David White of KAEC does safety training.



- Develop a list of skills or capabilities that are needed. Consider a checklist.
- Assess each employee against the checklist to identify any deviations.
- Develop custom programs for each employee needing training.
- Use the checklist when hiring or promoting employees.

This recommendation could take up to a year to complete, exclusive of the actual training which will be ongoing. The cost can vary depending on whether CVE develops the checklist internally and then the training cost will depend on the gap identified. This program should be developed over a six month period. Its cost should consist of: development of a data base and query of employees on current training levels; identification of programs; cost of programs; and ongoing administration. We would not expect the entire program to cost more than \$50,000 per year.

#### **GIS**

III-F34 The Geographic Information System (GIS) and associated mapping is a very useful tool for CVE and will improve productivity and safety.

This effort consists for a four year plan to map all of CVE's major infrastructure. The work is being conducted by Patterson & Dewar Engineers, Inc. The total cost of the system is under \$300,000 with Patterson & Dewar Engineers, Inc having received \$154,799 for transfer of hard drawings to the system. Other costs include software and implementation costs.<sup>39</sup>

Mapping and GIS system will provide significant improvement in information for responding to outages. In addition it will facilitate engineering and new service installations.

### **SCRAP POLICY**

*III-F35* Scrap copper and other metals are sold through a local vendor.

Lanham Iron & Metal has a facility for receiving scrap copper at CVE's Gray location. VRP Vanover Enterprises collects the scrap and delivers it. In cases where there is a large amount of scrap, it is put out for bid. In 2006, CVE received \$22,657 for its scrap copper.<sup>40</sup>

<sup>&</sup>lt;sup>40</sup> / DR 127.



<sup>&</sup>lt;sup>39</sup> / DR 124 and 125.