Shelby Energy Cooperative

Your Touchstone Energy® Partner

Final Report

Shelby Energy Cooperative
Management and Operations Audit

On Behalf of the Kentucky Public Service Commission

Submitted By

Auriga corporation

890 Hillview Court, Suite 130

Milpitas, California 95035, U.S.A.

August 1, 2009

Table of Contents

1 EXECUTIVE SUMMARY

The Management and Operations Audit of Shelby Energy Cooperative (SEC) was conducted in January-May, 2009 by Auriga Corporation, with Nexant as a sub consultant. The audit process included initial research using publicly available information, an initial data request and data review, on-site interviews on February 23-25, March 9, and April 6-7, 2009, four rounds of additional data requests and data review, analysis, and report preparation.

Shelby Energy has made significant progress since mid 2008 in improving safety practices for its employees and contractors. In addition, Shelby Energy has taken steps to ensure that the billing omission it reported in late 2007 regarding incorporation of charges from its power supplier, East Kentucky Power Cooperative, is not repeated; Auriga regards that omission as a one-time occurrence that Shelby Energy rectified appropriately.

The structure of the report is typical of management and operations audit reports, consisting of findings, discussion relative to the findings, and recommendations based on the findings. The areas covered include General Management, Financial Management, Energy Member Function (where Shelby Energy's Members are its customers), Engineering, Construction, Maintenance & Operation, Safety Practices, and Human Resources.

The Auriga Team provides a number of findings spanning the above areas, and a total of 35 recommendations for consideration and action by Shelby Energy's Board of Directors and Management.

In General Management, Shelby Energy is fortunate to have a capable and committed Board of Directors. The Board provides generally satisfactory oversight to Shelby Energy's management and operations. However, six recommendations applicable to the Board of Directors and the CEO address the need to engage more comprehensively in strategic planning as a foundation for annual work plans and budgets, additional policy requirements, an enhanced performance management approach relative to the CEO, and possible intervention related to tensions present at the senior Management level.

In Financial Management, eight recommendations focus on enhancement of budgeting formats and practices for performance management and control, a broader use of key performance indicators (KPIs) linked to the strategic plan, and a much-needed program to produce written procedures to implement key policies. In addition, the Auriga Team emphasizes the urgency for seeking and obtaining a distribution rate increase so that budgets sufficient for office, customer services, construction and operations can be supported and, more specifically in the near term, so that the TIER ratio can be improved to meet the loan covenant level of 1.25.

In the Member Function area, the four recommendations focus on development and use of detailed procedures. Shelby Energy's failure in late 2007 to include all components of the power and generation rates, involving fuel cost adjustment and the associated affect on environmental surcharge, from East Kentucky Power Cooperative, were a one-off event yet may be symptomatic of the lack of written detailed procedures.

In the Engineering area, practices were found to be satisfactory, although there are issues to be addressed through succession planning and increasing staffing.

In Construction, Maintenance and Operations, practices were found to be generally satisfactory. However, most of the recommendations in the Safety Practices area, described as follows, apply primarily to Construction, Maintenance and Operations,

In Safety Practices, the Auriga Team recognizes that significant the progress has been made since mid 2008. However, workplace safety among employees, contractors and the public is a broad objective that involves continual improvement -- and there is room for further improvement at Shelby Energy. Eleven recommendations are provided, which focus mainly on policy improvement, efficiency and formatting of reporting, clarification of manager/supervisor accountability vs. accountability of the Safety and Loss Control Coordinator, and the need for an all-hands, externally-facilitated review of the detailed dispatch and communication activities that occurred in the February 2009 ice storm.

In the Human Resources area, six recommendations address the need for succession planning, reduction in the number of direct reports to the CEO, additional hiring, and improvement in communication to employees about the cross-training program.

The Auriga Team would like to thank all Shelby Energy employees, in particular its CEO, Debbie Martin, for their extraordinarily cooperative and efficient response to all questions and data requests during this Audit. We wish Shelby Energy well in its efforts to provide to its Members safe and reliable electric power and cost effective responsive services.

A complete list of the recommendations based on the Auriga Teams' findings in the Management and Operations Audit is provided in Table 1.1 (next nine pages). It provides linkage information when recommendations, in some instances, should be considered in combination. In Table 1.1, the key for designated priorities is as follows:

A - high priority recommendations that can be implemented within six months.

B - high priority recommendations that can be implemented within a year.

C - lower priority recommendations to be implemented within two years.

Table 1.1 – List of Recommendations

Based on Finding No.	Recommendation	Linked to Finding No.	Priority
4-2	Policy P108 should be expanded to include all cross-references to conflict of interest guidelines that apply to Shelby Energy Board members. In addition, the newly-developed and executed Conflict of Interest Statement form should be appended to that Policy.	N/A	A
4-3	1. Policy P102 should be expanded to provide a specific framework for the Strategic Planning process, including timing of formal reviews and updates, structure of the Strategic Plan, and the intended use of that Plan in driving tactical and operational business planning including financial planning. 2. The Board Secretary should schedule a Board Strategic Planning Workshop in late 2009 and thereafter at least once every two years, which should involve as much time as necessary for presentations of issues, analysis, and thorough discussion. The recommended time horizon for strategic planning should be five years, informed by additional views of trends out at least 10 years from the present. Following the Workshop, perhaps at the following regular Board meeting, a Strategic Plan should be adopted. In addition, the annual Work Plans adopted by the Board should be explicitly founded upon the Strategic Plan with specific metrics and KPIs defined enabling monitoring of achievement of the strategic goals. Thereafter, if external or internal events that unfold as time moves forward present new significant concerns that were not addressed in the Strategic Plan, the Board Secretary, in conjunction with the CEO, should ensure that the issue is addressed by the Board in a timely way.	N/A	A
4-6	Policy 105, Key Performance Areas, should be reviewed by the Board and expanded in the context of the recommended enhanced strategic planning process.	4-3, 5-8	B
4-7	The structure of the executive performance review should be enhanced through the inclusion of quantifiable	4-3, 4-6,	B

Based on Finding No.	Recommendation	Linked to Finding No.	Priority
	performance objectives based on the strategic plan and consistent with the expanded Policy 105.	10-4	
4-11	Implement a new organizational structure with no more than four departments reporting to the CEO -- to increase the clarity of delegation and to reduce the day-to-day management burden on the CEO. The four departments should be (1) Finance, (2) Operations, Maintenance and Construction, (3) Engineering, and (4) Customer Services.		B
4-14	Shelby Energy's Board of Directors should hire the services of a management consultant who specializes in identifying and resolving organizational issues. The consultant's deliverables should include (1) a report to the Board, to be provided in closed session, as to the nature of issues that exist currently at the senior Management level and recommendations for Board action, if the consultant deems warranted, and (2) guidance to the CEO as to actions that may be taken to resolve the issues identified.		A
5-1	1. Annual budgets should identify linkages to the appropriate elements of the Board-approved Strategic Plan. 2. CEO presentation of the recommended annual budget to the Board should identify alternative funding components considered, even if not recommended, that would advance fulfillment of the Strategic Plan. 3. The Strategic Plan should be prepared in a suitable format for public consumption, made available through the Shelby Energy website, and updated periodically.	4-3	C
5-2	1. The CEO, in consultation with the Board, should develop new budget formats that facilitate departmental and corporate controls and performance monitoring. Policy 301 should be reviewed in consideration of these changes. 2. Policies P301, P102, and P105 should be modified to specify the criteria that would trigger a midyear recommendation of a budget revision for Board approval.		B

Based on Finding No.	Recommendation	Linked to Finding No.	Priority
5-4	1. The CEO should develop, and seek Board Adoption of, additional Finance and Accounting Policies to address the gaps in existing policies. 2. The CEO should establish a standard format for all procedure documentation. 3. Management should develop detailed procedures in support of each Finance and Accounting Policy to augment the operating instructions associated with transactions-processing details contained in the Uniform System of Accounts and the General Accounting Information System.	6-3 (format)	C A (format)
5-6	Board-approved policy should be established to require a regular internal audit program over a three year cycle, including financial transaction tests, with tests of internal controls to be performed each year.		B
5-7	The budget policies should set out tolerance levels of variances for the entire operating budget (e.g., +/-5%) and for each account in each department/cost center (e.g., +/-10-25% or $40,000-$100,000) and, on a monthly basis, the formal budget performance submissions to the Board should contain explanations for all variances that exceed the prescribed tolerance levels.		B
5-8	The CEO, with Board input, should define critical KPIs in the Strategic Planning process, set specific targets for them in the preparation of annual budgets and work plans, and report the KPI results in the ongoing budget performance reporting process.	4-3, 4-6	C
5-9	The Board should require the CEO to present for its review and approval, no later than at its August 2009 meeting, a plan and a schedule, with specific milestones, for maintaining TIER of at least 1.25.		A
5-10	The highest possible priority should be assigned to preparation and submission of a tariff increase filing during 2009.		A
6-1	Shelby Energy should develop a written procedure to document new customer service connections, to facilitate the handoff between Customer Services, Engineering and Operations, and to facilitate cross training within		C

<table>
<tr><th>Based on Finding No.</th><th>Recommendation</th><th>Linked to Finding No.</th><th>Priority</th></tr>
<tr><td></td><td>Customer Services. The procedure should include the following:
Procedure owner (one only)
Date of adoption/revision of the procedure
Signature of CEO
Table of Steps that includes the following:
Responsible Employee (for each step, a single employee is identified as responsible)
Action Steps
Timing/Dates for completion.
The Customer Service Connection Procedure should cover the following activities:
Response to customer requests
Engineering requirements
Physical connection of new customers
Customer deposits.</td><td></td><td></td></tr>
<tr><td>6-3</td><td>Shelby Energy should implement a detailed written procedure (or procedures) documenting the monthly billing and payment processes, including the following:
Procedure owner
Date of adoption/revision of the procedure
Signature of CEO
Table of Steps that include the following:
<table><tr><th>Responsible Employee</th><th>Action Steps</th><th>Timing/Dates for completion</th></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table></td><td></td><td>C</td></tr>
<tr><td>6-4</td><td>Shelby Energy should draft and implement a detailed written procedure to document the process for implementation of fuel adjustment and EKPC rate changes.</td><td>6-3 (format)</td><td>B</td></tr>
<tr><td>6-5</td><td>Prepare written procedures for key customer service tasks.</td><td>6-3 (format)</td><td>C</td></tr>
</table>

Based on Finding No.	Recommendation	Linked to Finding No.	Priority
9-1	Regular monthly Management reporting to the Board on employee accidents and injuries should be broadened to include: 1. Shelby Energy safety program accomplishments including training 2. Updates to statistical information such as the number of hours worked without a lost-time accident 3. Accidents and injuries to Shelby Energy contractors while working on Shelby Energy assignments 4. Improvements to safety practices and other pertinent safety information encompassing Shelby Energy employees, Shelby Energy contractor employees, and the public 5. Recognition to Shelby Energy employees for excellent safety practices.	4-5	B
9-2	1. Change the title of Policy No. 908 to emphasize Shelby Energy's commitment to employee safety rather than loss control – consider "Shelby Energy Safety Program," thus avoiding the impression made that that the program is focused on property losses rather than personal injury. 2. Address the topic of property losses in other Shelby Energy policy documents. 3. In Policy No. 908, insert a new Section I: the first new paragraph should be the Shelby Energy's Commitment Statement – for example, "Shelby Energy Cooperative shall make safety the top priority in providing reliable and competitively priced quality energy services to members and customers that will result in community development with lasting value." 4. Insert a new Section II. The first new paragraph should address Responsibility; use the first paragraph of the existing Section II (the Board of Directors statement). 5. The second paragraph in the new Section II should be a CEO statement on Enforcement. Consider		B

Based on Finding No.	Recommendation	Linked to Finding No.	Priority
	revising paragraph IV.B, page 16, as follows: "The CEO is responsible for the overall compliance and enforcement of these safety rules, procedures and work practices in all areas and functions in which Shelby Energy employees and contractors work. The Manager of Operations is responsible for the enforcement of these safety rules, procedures and work practices in all construction, operation and maintenance functions. The Safety Coordinator is responsible for coordinating the Shelby Energy safety program, including recommendations on safety policy and procedure refinement, communication of industry safe practices, and development/coordination of safety training for employees." 6. The third paragraph in the new Section II should be a revision of the existing Section II, 2nd paragraph, with suggested language as follows: "Shelby Energy Employees shall comply with these safety rules, procedures and work practices while performing their assigned work." 7. Section III should encompass the "Content" portion of the existing Section II. 8. The new Section IV should capture policy language from the existing Section III, page 15. Add a paragraph in the new Section IV under the disciplinary portion to clearly define discipline as being the responsibility of the department manager. 9. Add a Table of Contents for this document. 10. Safety Policy No 908 should be referenced in all other Shelby Energy safety documents and should be adopted as the primary Shelby Energy safety document. Other safety policies should be numbered 908-A, 908-B, etc., to reinforce the understanding that they build upon the primary safety policy document. 11. Compile all of the safety policy documents into a notebook, communicate these changes to all employees, and assure they are readily available for		

Based on Finding No.	Recommendation	Linked to Finding No.	Priority
	employee reference and review. 12. Incorporate in an appropriate policy, or in Policy No. 908 itself, the requirement that this policy and other referenced safety policies, be reviewed annually and updated if necessary. 13. Field crews should always have with them, in their vehicles and at their desks, a copy of the APPA Safety Manual and Shelby Energy safety policies.		
9-3	Logs of safety meetings should be specific as to the training material covered.		A
9-4	1. Continue to take and issue minutes of future Safety Committee meetings 2. Consider dropping as members of the Safety Committee the Office Manager and VP & Manager Engineering, and adding a second lineman.		A
9-5	1. Include in Policy No. 908 the role of and guidelines for the Accident Investigation Committee, including whether contractor accident/incident reporting should be included and as to when accidents reports should be provided directly to Shelby Energy's attorney rather than directly to Management. 2. Consider including at least one lineman as a member. Consider rotating linemen on an annual basis to give a wider group of field personnel an opportunity to participate. 3. Consider including an outsider such as an Owen Electric representative on the Committee. 4. Issue reports of Committee Investigations.		B
9-6	1. Develop a written, detailed procedure for dispatch and field response during outages. 2. Reference APPA Safety Manual Section 507.23 in Policy No. 908. 3. Review the Hazardous Energy Control Program, along with APPA Safety Manual Section 507.23, in a safety meeting at least once each year. 4. Consider development of an electronic display board		B

Based on Finding No.	Recommendation	Linked to Finding No.	Priority
	showing all feeders, linked to the SCADA system, to enhance dispatch information in major storm outages. 5. By August 31, 2009, facilitated by an outside operations expert, review with all those who were deployed by September 1, 2009 the dispatch process and field practices as used during the February 2009 ice storm. Incorporate any "lessons leaned" in a revised dispatch/field response procedure.		A (item 5)
9-7	Strongly consider revising Operating Procedure No. 5, Work Hours for Emergency Outages, to restrict continued work in outage restoration to 16 hours, after which employees are to take a rest break of at least 8 hours		B
9-8	1. Reformat training records by employee name as the primary reference and incorporate past training information. 2. Develop a Training Program Document to describe Shelby Energy's multi-year training plan for apprentices as well as for advancement and periodic refreshment of skills of seasoned field crew employees. Include Operating Procedure No. 7 on Apprentice Training in this document. 3. Reference the Training Program in Policy No. 908.		B
9-9	1. Develop a monthly/quarterly report, such as an Excel spreadsheet, to include all accidents as follows: • Incident Cases – without doctor visit and personal injury • Personal Injury Cases – these are also workers' comp cases • Lost Work Day Cases • Vehicular Incidents – without KY State Police Investigation • Vehicular Accidents – with KY State Police Investigation 2. Utilize specific information already contained in various investigation reports:		B

Based on Finding No.	Recommendation	Linked to Finding No.	Priority
	• Brief description of accident/incident cause and type of injury if appropriate • Frequency – monthly/quarterly – the report should show year-to-date numbers • At the beginning of each year, reporting starts with a clean slate • Over time, using end-of-year summary data, trends should be developed • Utilize trends in determining necessary preventive measures to focus on the improvement of safety performance and identifying necessary areas of training or retraining 3. Summarize property damage accidents separately or at the end of the report 4. Compile data for Elliott Construction, and/or successor construction contractors, in the same format and manner as for Shelby Energy employees.		
9-10	1. Shelby's Management should develop and implement a specific reward system for employee reporting of violations and near misses. 2. Shelby Management should develop practices for prompt integration of lessons learned from reported violations and near misses in its regular work practices.		B
9-11	Shelby Energy's Safety Coordinator should develop an effective tracking/trending system to summarize the results of safety related monitoring of Elliott's construction activities.		B
10-1	1. Hiring for open positions should be a high priority. 2. Review Engineering staffing levels in light of the Succession Plan (see following recommendation) and consider increasing the balance of engineering work from outsourcing to internal assignment. 3. Review field crew staffing levels in conjunction with a review of work scheduling practices.		B

Based on Finding No.	Recommendation	Linked to Finding No.	Priority
10-2	A comprehensive succession plan, containing the elements described in the discussion, should be developed by December 2009 and updated periodically thereafter. The succession plan should immediately address the three Manager positions identified in the Recommendation based on Finding 4-11.	4-11	A
10-3	Shelby Energy should develop written procedures defining the process for implementing the key HR policies.	6-3 (format)	C
10-4	Develop and implement a target-based performance plan for all employees.	4-6	C
10-7	Shelby Energy should develop a policy and written procedure for tracking completion of training programs. Training requirements should be explicitly included in the performance management process.	9-8, 10-4	B
10-8	The CEO and department heads should provide employees with more details on the timing of rotations, the objectives of the cross training, and expectations regarding assignment of ultimate responsibilities (if appropriate).		A

2 INTRODUCTION

In February 2009, Kentucky Public Service Commission (KPSC) retained the services of Auriga Corporation to conduct a focused Management and Operations Audit of Shelby Energy Cooperative, Inc. (SEC).

As part of a settlement agreement (September 2008) between the Kentucky Public Service Commission (KPSC) and Shelby Energy Cooperative, Inc., KPSC requires Shelby Energy to undertake a management audit of its operations. The objective of this audit is to examine all aspects of Shelby Energy's management and operations. In addition, the audit will include a special focus on the following two areas: Safety Program and Billing Practices.

The management audit was initiated on February 2, 2009. The audit was scheduled to be completed by June 30, 2009.

2.1 Objective and Scope

The objective of the audit is to examine all aspects of Shelby Energy's management and operations, including:

- Strategic and Corporate Planning;
- Structure and Role of Shelby Energy's Board of Directors;
- Member services organization;
- Financial Management;
- Human Resources;
- Engineering Operations;
- Construction.

In addition to the above list, the audit includes a special focus on two additional areas: Shelby Energy's safety program and billing practices. The focus on the safety program is due to recent fatalities of Shelby Energy contractors. The audit will evaluate whether Shelby Energy's safety policies and procedures are appropriate and are being implemented as required. With respect to billing practices, the audit will examine whether all costs are correctly accounted for, and that all components of the bill (costs, rates, and taxes, pass-through) are included on the bills in a timely fashion.

The output of the audit is a series of recommendations and associated action plans that have been agreed upon by Shelby Energy. These recommendations will be based on our analysis of the situation at Shelby Energy, on our in-depth understanding of the electric industry, and the issues affecting rural energy cooperatives in particular.

2.2 Approach and Methodology

A well-structured and proven approach was utilized to conduct the management and operations audit of the Shelby Energy. The primary objectives of the audit were as follows:

- Obtain pertinent and relevant information from Shelby Energy as soon as possible
- Conduct interviews with Board of Directors, CEO, Management and Operations staff of Shelby to validate the accuracy of information obtained from SEC.
- Conduct a thorough analysis of information provided by SEC
- Provide an unbiased and objective assessment of SEC management and operations based on best industry practices
- Review preliminary findings with Shelby management to make sure that findings are accurate and reasonable.
- Prepare a detailed final report and action plan for Shelby Energy to follow through to address the management and operations issues or deficiencies found during the audit.

Following tasks were performed:

- Task 1 – Kickoff Meeting and Approach Presentation
- Task 2 – Data Collection and Interviews
- Task 3 – Detailed Review and Analysis
- Task 4 – Preparation of Preliminary Recommendations
- Task 5 – Verification & Three-Party Roundtable Meeting

2.3 Report Structure

This report is organized and structured as follows:

- Executive Summary: Provides an executive summary of management and operations audit including a list of all recommendations.
- Introduction: Provides background information, objectives and goals of the audit, approach and methodology, and describes report structure.
- Company Background: Provides Shelby Energy's background and operations.
- General Management: Provides an overview of Shelby Energy management and operations including SEC's Board of Directors (BOD), Chief Executive Officer (CEO) and Management. In addition, it describes the interaction between BOD and CEO.
- Financial Management: Provides an overview of financial planning process, accounting policies and procedures; discusses financial health of the organization and rate structure.

- Member Functions: Describes customer service functions such as customer connections, meter reading, and billing and payment.
- Engineering: Describes system design and material specifications, material procurement, work order management, and internal coordination, and integration.
- Electric Distribution System Operations, Maintenance and Construction: Describes overhead and underground system maintenance, and work management and crew scheduling
- Safety: Describes safety practices at Shelby Energy.
- Human Resources: Describes staffing level and background and experience of employees at Shelby. In addition, it describes HR policies and procedures, employee benefits, and recruitment and training.

3 COMPANY INFORMATION

Shelby Energy is a small consumer-owned non-profit rural electric distribution cooperative corporation, organized pursuant to Chapter 279 of the Kentucky Revised Statutes. Shelby Energy is engaged in the sale of electric energy to customers in ten Kentucky Counties: including Anderson, Carroll, Franklin, Henry, Jefferson, Oldham, Owen, Shelby, Spencer, and Trimble. Figure 3.1 shows the service area of Shelby Energy Cooperative:

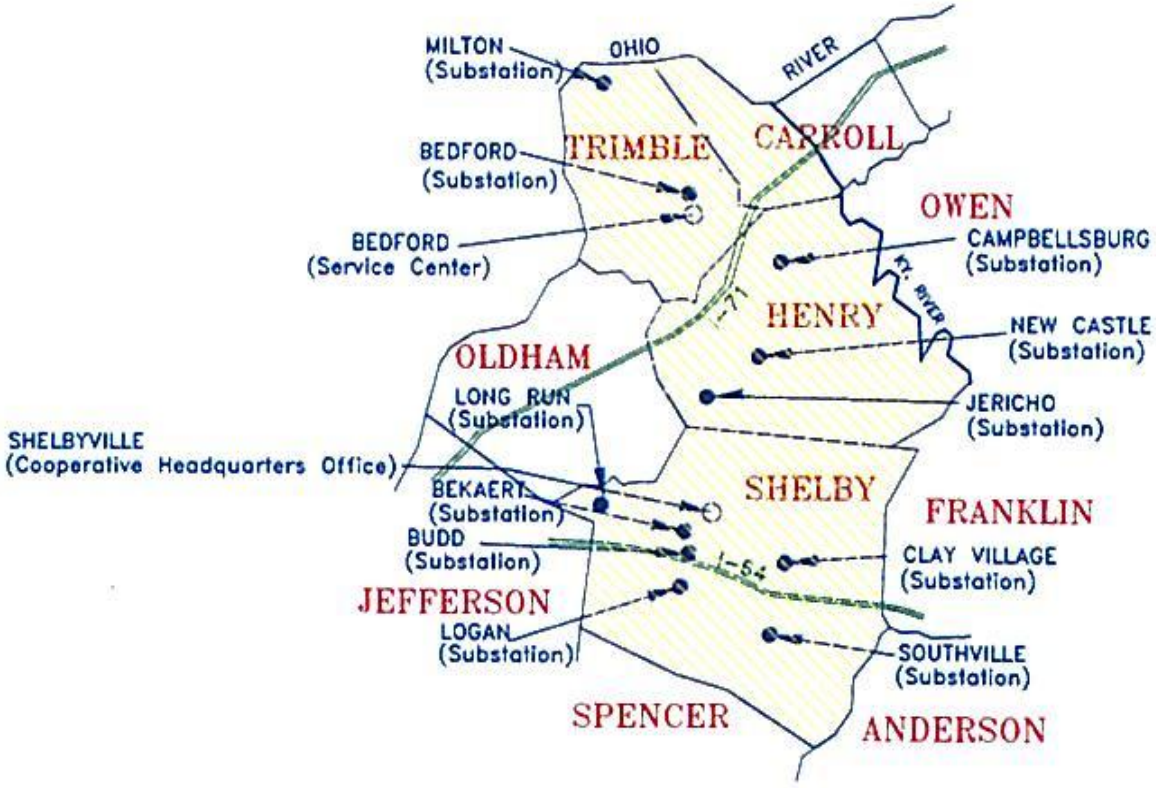

Figure 3.1 Shelby Energy Cooperative Service Area

Shelby Energy serves industry, schools, farms, homes, and businesses. SEC's service area is one of the fastest growing areas of the state. As of December 2007, Shelby Energy serves 15,283 electric customers, 14,549 of which were residential customers. Table 3.1 shows the total number of customers served by Shelby Energy in each county.

Table 3.1 - SEC Customers

County	Consumers Served
Anderson	7
Carroll	817
Franklin	7
Henry	4,087
Jefferson	11
Oldham	55
Owen	90
Shelby	6,894
Spencer	47
Trimble	3,268
Total	**15,283**

3.1 Shelby Energy Cooperative Data

Shelby Energy purchases all the electric energy it sells from East Kentucky Power Cooperative, Inc. Shelby Energy is one of 16 members – owners of East Kentucky Power. Shelby Energy's total electric operating revenue for the year ended December 31, 2007 was $35,483,826 with a net income from electric operations of $782,148. Total net income for the year was $1,090,642. As of December 31, 2007, Shelby Energy had 31 full-time employees.

Table 3.2 shows key operating data of Shelby Energy for the year 2008. This data was obtained from SEC's RUS Form 7.

Table 3.2 – SEC Operating Data (2008)

Average Number of Consumers	15,191
Energy Purchased (MWH)	473,891
Energy Sold	453,798
Maximum Demand (MW)	101.27
Consumers/Mile	7.31
Utility Plant (Total)	$62,537,689
Utility Plant (Per Customer)	4,117
Revenue	36,715,091
Net Income (Electric Operations)	($428,447)
Total Income (Total Operations)	$90,239

3.2 Electric Distribution Network

SEC has 39 distribution circuits totaling 2,065 miles. Eleven circuits are operated at 14.4/24.9 kV. Two circuits are operated at 7.62/13.2 kV. The remaining 26 circuits are

operated at 7.2/12.47 kV. Installed overhead conductor sizes range from #8 ACWC to 336.4 MCM ACSR.

3.3 Power Supply

East Kentucky Power Cooperative (EKPC) provides all power and energy needs of SEC, along with 15 other distribution cooperatives, by virtue of standard contract. EKPC is a RUS financed Generation and Transmission (G&T) cooperative with offices in Winchester, KY. SEC is one of the 16 member-owners of EKPC.

EKPC constructs, owns, operates and maintains 11 existing substation sites. EKPC also constructs and maintains the 69 kV transmission lines which provide power supply to the SEC's distribution system.

3.4 SEC Organization

Figure 3.2 (Next Page) shows current organization structure of SEC. SEC is governed by a Board of Directors (BOD) comprising six members. The BOD sets policies and provides guidance to the Chief Executive Officer (CEO) of SEC. All of the Board members are customers (stakeholders) of SEC and live within the service territory of SEC.

The President and CEO ("the CEO") is supported by six direct reports in the day to day operations of SEC. The following chart illustrates SEC's current management structure:

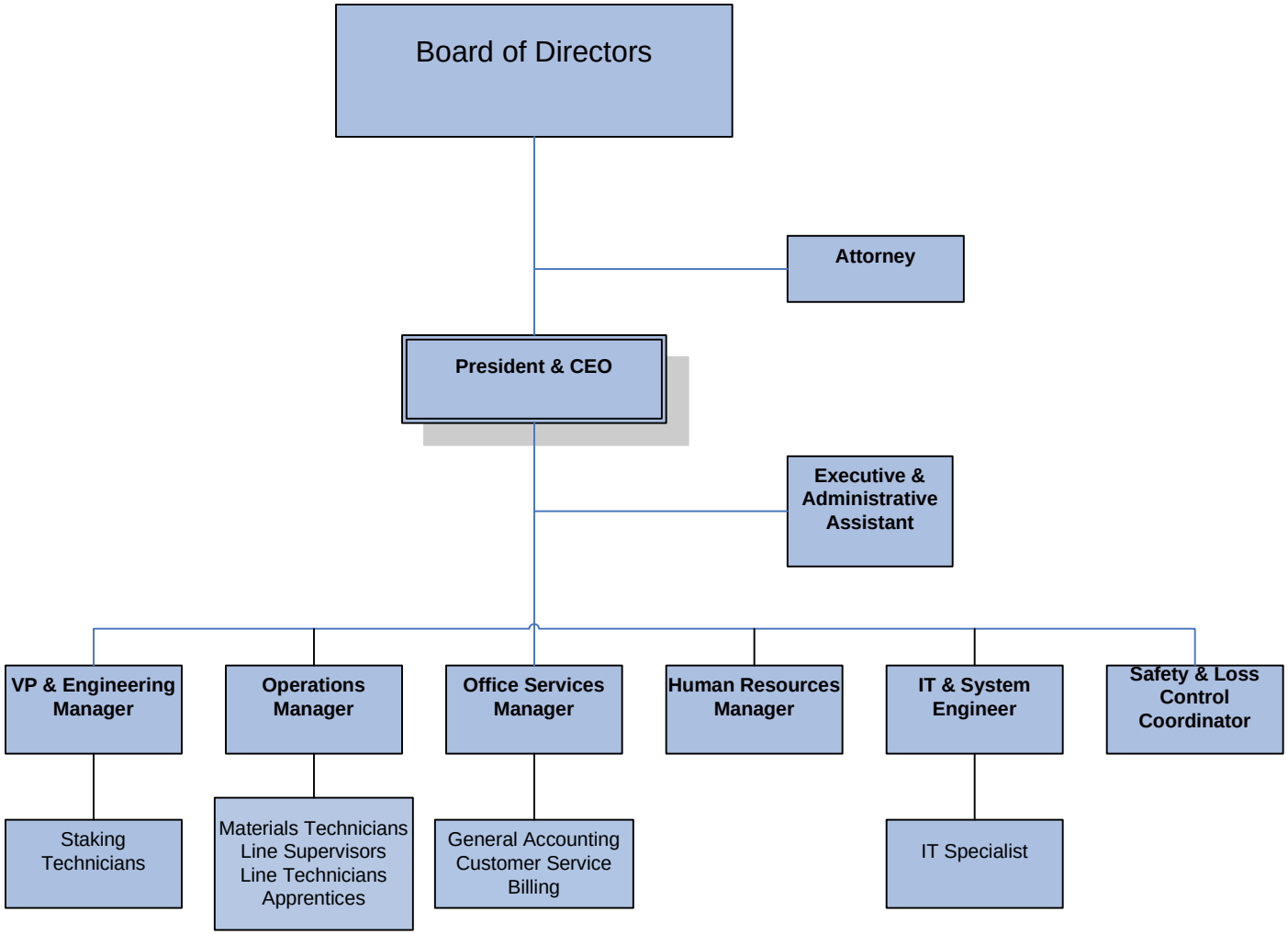

Figure 3.2 Shelby Energy Cooperative Organization Chart

4 GENERAL MANAGEMENT

4.1 Corporate Governance

In well functioning organizations, boards of directors, enterprise executives, and line management are mandated to ensure an enterprise is operating consistent with prescribed business plans (strategic, tactical and operational plans), and to provide transparency and integrity in the execution of financial functions.

One key element in improving overall institutional effectiveness and efficiency is quality corporate governance. It involves a set of relationships between the company's management, its board, it shareholder[s], and other stakeholders. Corporate governance also provides the structure through which the goals and objectives of the company are set, and the means of obtaining those objectives and monitoring performance are determined.

The assessment relative to Shelby Energy's corporate governance is considered in two sub-sections: (1) the role and actions of the Board of Directors, and (2) the role and actions of Shelby Energy Management, involving its CEO and employees with the titles Vice President and/or Manager.

In organizing the findings and recommendations applicable to Shelby Energy corporate governance in the sections that follow, the Auriga Team has assembled those most directly applicable to the Board in Subsection 4.2 and those most directly applicable to the CEO in Subsection 4.3. However, there are strands of responsibility, such as policy setting, that span the responsibility of the CEO and the Board. Therefore, the entire section should be read together to ensure that that the mutual roles and responsibilities of both the Board and CEO can be addressed. Furthermore, there are findings and recommendations in subsequent sections, notably Chapter 9 on Safety, that apply primarily to the Board and the CEO. By expansion, we urge that the entire report, with all of its findings and recommendations, be viewed in order to fully embrace the improvements advocated in corporate governance.

4.2 Board of Directors

The Board should fulfill certain key functions, including:

- Reviewing and guiding corporate strategy (beyond the current year), major plans of action, policy, annual budgets and business plans, setting performance objectives, monitoring implementation and corporate performance and overseeing major capital investments.

- Ensuring the integrity of the corporation's accounting and financial reporting systems, including independent audit, and that appropriate internal systems of control are in place, in particular, systems for monitoring risk, financial control, adherence to corporate policy and compliance with the law.

Finding 4-1

Shelby Energy's Board of Directors is sufficiently diverse in terms of experience in representing Shelby Energy's Members and its decisions can generally be regarded as timely and prudent.

Discussion on Finding 4-1

The Board consists of six Directors. However, the Board currently has a vacancy. One Director recently resigned after serving on the Board since 1989. His resignation was due to a government position he recently accepted, which, he felt, might place him in a conflict of interest situation had he continued on Shelby Energy's Board[1].

The Directors are appropriately diverse in terms of experience when representing Shelby Energy's Members. They reflect rural interests, notably farming and local banks, local community organizations, the national cooperative industry association (NRECA), and Shelby Energy's energy supplier, East Kentucky Power Cooperative.

The Auriga Team requested copies of any letters or written disclosures made since January 1, 2000, by Shelby Directors to the Secretary of the Board or to any other any other authority in Kentucky related to conflicts of interest or alleged conflicts of interest while serving on Shelby Energy's Board. The CEO responded that she was unaware of any such disclosures or letters[2].

The Board appears cognizant of the need for succession initiatives to ensure ongoing satisfactory Member representation and Shelby Energy Management oversight[3]. Even though all of the current Board members have served extensive terms, one Director stated that all Board members continue to contribute strongly. He observed that length of service brings perspective and experience.

Nonetheless, Auriga notes that there is not a formal succession plan for the Board. Since Board members are elected by the Members, the existing Board members have neither full control over nor total responsibility for succession. However, the community is relatively stable in terms of movement into and out of the area. Since the influence of community leaders in general can be expected to yield the candidates for future Board positions, the existing Board members by tradition will seek candidates who have demonstrated community leadership, bring diversity in terms of experience, and can reasonably be expected to contribute strongly to the Board's functions over many years. Endorsement by existing Board members generally assures Member support. As is the generally case with boards serving tight-knit community-focused organizations, directorship is almost always terminated by resignation when a director chooses to do so or once he is told privately that he is no longer serving the Board adequately. Since it

[1] February 23-25, 2009 interviews with Directors.
[2] Document No. 2-11 in Response to Data Request.
[3] February 23-25, 2009 interviews with Directors.

appears to the Auriga Team that the existing Board members share this perspective of their responsibility, no recommendations in this context are necessary in this audit report.

The Auriga Team found the interviewed Board members to have clear accounts of the Board's activities over the past several years. They demonstrated a strong sense of engagement and commitment to oversight of Shelby operations.

The Board meets monthly, typically skipping two monthly meetings each year due to other industry commitments[4]. The minutes show that the Board is generally well informed by the CEO of events and operations results that are important to gauge the ongoing financial health and satisfactory operations of Shelby Energy. For example, the year-to-date Financial and Statistical Report is presented at every Board meeting, a report on delinquent accounts written-off is presented monthly, and Safety and Inspection Reports are presented monthly.

Minutes also show that Board meetings are frequently attended by Shelby Energy's outside legal counsel, which has the advantage that legal matters can be addressed in direct communication with the Board.

A review of Board meeting minutes and documents received for the years 2005-2008 demonstrates that the Board provides appropriate direction to Shelby Energy's CEO through its series of approvals of budgets, work plans, contracts, and other items. The Auriga Team does not provide a comprehensive assessment as to whether the Board's decisions over recent years were prudent. However, Auriga is able to conclude from the Board meeting minutes and from Board-approved policies that the Board neither micromanages its CEO nor holds itself distant and disengaged from important Shelby Energy issues, with one key exception: strategic planning (see Finding No. 4-2 below).

Finding 4-2

Shelby Energy's Policy 108, Qualifications of Cooperative Directors, has no clear statement or standard on conflict of interest. (Item D.5 requiring Directors to "represent the membership on an impartial basis" does not clearly and unambiguously address conflict of interest.)

Discussion on Finding 4-2

Policy P108 (Qualifications of Cooperative Directors)[5] sets out the formal policy regarding Conflict of Interest Guidelines. This policy statement does not provide a clear and definitive statement regarding conflict of interest. A clear statement regarding conflict of interest must include:

- A statement that each Director is required to act in the entire community of Members' interest and not in his own interest or that of other people or

[4] Board meeting agendas and minutes, January through December 2008.
[5] Shelby Energy Policy Binder.

organizations with whom the Director is affiliated. (Such a statement does appear in Policy P108.)

- A broad definition of affiliated people who could potentially benefit from a Director's actions on Shelby's Board if the Director were so inclined. (Typically this would include members of a Director's immediate family.)
- A statement that a Director may not receive payment, salary, services, or gifts above a small value (to be defined) from any person or organization that may stand to benefit financially or otherwise from the Director's actions on Shelby Energy's Board. Fees and/or specific benefits from Shelby Energy as approved in other Board policies should be accepted. It is helpful for the conflict of interest policy to include a standard, even by way of examples, against which an affiliated person or organization's potential benefit from a Director's actions would not place that Director in conflict of interest. Such a standard would avoid vulnerability to allegations of conflict of interest that would generally be regarded as ridiculous or insignificant.
- A defined mandatory process for reviewing specific situations where there is uncertainty as to whether a conflict of interest exists or where there are allegations of conflict of interest. Possible processes include (1) review by Shelby Energy's outside legal counsel and a report to the full Board in closed session, (2) review by a Board subcommittee and report back to the full Board in a public meeting, or (3) review by a designated committee of Members who are not Board Directors or Shelby Energy employees, and a report to the Board in a public meeting.
- Guidance for a Board Director who finds himself in a case of limited conflict of interest relative to a single item before the Board for action. Typically, the guidance would be that the Board Director declares that he has a potential conflict of interest on that item and that he steps out of the Board meeting for the entire discussion and action relative to that item. The Board Director's declaration and absence should be noted in Board minutes.
- A requirement that a Director who identifies that he has a sustained conflict of interest or has been found to have a conflict of interest (in the process described above) must resign from the Board immediately.

During the Auriga Team's presentation of preliminary findings to Shelby Energy[6], it was pointed out that Policy P108 needs to be read in conjunction with the Cooperative's Articles of Incorporation and the Cooperative By-Laws. The CEO advised that, in the November/December 2008 time frame, a standard Conflict of Interest Statement was developed and has been signed by all Board Directors.[7]

[6] April 7, 2009 meeting.
[7] Response to Data Request No. 4-2.

Recommendation Based on Finding 4-2

Policy P108 should be expanded to include all cross-references to conflict of interest guidelines that apply to Shelby Energy Board members. In addition, the newly-developed and executed Conflict of Interest Statement form should be appended to that Policy.

Finding 4-3

Shelby Energy's Board of Directors does not adequately engage in strategic planning and does not require annual work plans, and budgets to be clearly linked to multi-year strategic plans. Policy 102 on Functions of the Board of Directors, item (C) "To Consider and Adopt Short and Long Range Plans," specifies no actions beyond examining and approving annual work programs and plans and the operating budget.

Discussion on Finding 4-3

The Board has not been as engaged in strategic issues as an outside industry observer might expect given the various cost pressures and environmental challenges facing Shelby Energy and the energy utility industry as a whole. The Auriga Team reviewed documents[8] provided by Shelby Management dated "0108" and January 22, 2009. These two single-paged documents do list, with modest supporting data, various issues of strategic importance to Shelby Energy. However, there is no analysis to indicate alternative paths forward, with decision points identified. Nor do the minutes for the relevant Board meetings indicate that a full discussion of strategic issues took place. The CEO stated that more needs to be done to engage the Board in comprehensive strategic planning.[9] She expressed confidence that she could achieve the appropriate level of Board attention on any single issue that was pressing or may soon be pressing, but said she had not been successful in engaging the Board on a full range of strategic issues at a single meeting.

However, the risk of the Board attending to issues of strategic importance in a piecemeal fashion, perhaps mainly in a reactive mode, is that external events, rather than the Board and Management, will drive Shelby Energy's future to a far greater extent than would be the case if the Board charted its forward path more progressively. To its credit, the Board currently regards "safety and right-of-way" management as strategic imperatives[10]. In addition, two Directors identified the near-term strategic imperative of securing KPSC approval of a rate increase[11].

The Financial Management section of this Audit Report also contains observations and recommendations that focus on improving the scope of strategic planning processes which essentially sets out the vision of the way forward for Shelby Energy in the medium to long term. Coupled with specific quantified targets (financial and operational key

[8] Document No. G-2 in Response to Data Request.
[9] February 23-25, 2009 interviews with Directors.
[10] February 23-25, 2009 interviews with Directors.
[11] February 23-25, 2009 interviews with Directors.

performance indicators -- *KPI*s), the strategic plan provides the Board and the Shelby Energy CEO with a mechanism to monitor achievement of the strategic goals.

Recommendation Based on Finding 4-3

1. **Policy P102 should be expanded to provide a specific framework for the Strategic Planning process, including timing of formal reviews and updates, structure of the Strategic Plan, and the intended use of that Plan in driving tactical and operational business planning including financial planning.**

2. **The Board Secretary should schedule a Board Strategic Planning Workshop in late 2009 and thereafter at least once every two years, which should involve as much time as necessary for presentations of issues, analysis, and thorough discussion. The recommended time horizon for strategic planning should be five years, informed by additional views of trends out at least 10 years from the present. Following the Workshop, perhaps at the following regular Board meeting, a Strategic Plan should be adopted. In addition, the annual Work Plans adopted by the Board should be explicitly founded upon the Strategic Plan with specific metrics and KPIs defined enabling monitoring of achievement of the strategic goals. Thereafter, if external or internal events that unfold as time moves forward present new significant concerns that were not addressed in the Strategic Plan, the Board Secretary, in conjunction with the CEO, should ensure that the issue is addressed by the Board in a timely way.**

Finding 4-4

Shelby Energy's Board of Directors was sufficiently well informed of the issues that arose in late 2007 regarding the failure to include all East Kentucky Power Cooperative rate elements in Shelby Energy customer rates. The Board was also sufficiently well informed and appropriately supportive of actions taken by Management in 2007-2008 to resolve this error.

Discussion on Finding 4-4

The two interviewed Directors expressed a clear understanding of the specifics of the Shelby Energy error in applying EKPC rate adjustments in late 2007, and the subsequent corrective action implemented by the CEO[12]. Board minutes for the December 27, 2007 meeting indicated the CEO's presentation of the issue to the Board. Board minutes for the April 24, 2008 meeting indicate the Board was briefed on Management's progress to arrive at a suitable remedy. Although Board minutes over the relevant period do not record its specific approval of Management's recommended remedy, the Auriga Team believes that the CEO had a suitable recovery plan and that no issues needed to be presented for Board decision.

[12] February 23-25, 2009 interviews with Directors.

The two interviewed Directors expressed confidence in the CEO and were satisfied with her disclosure of the error and her proactive way of correcting it.[13] Neither Director perceived this error as a significant Management failure and mentioned that only one or two complaints had been received – from industrial customers. The CEO has since implemented a control process involving additional employee checking to avoid a repeat of the error.

A detailed discussion of this issue together with specific recommendations to further mitigate potential for a recurrence is contained in Chapter 6 of this Audit Report.

Finding 4-5

a) Shelby Energy's Board of Directors is currently sufficiently focused on and supportive of Management's actions to meet all applicable laws and regulations to ensure employee safety.

b) However, Shelby Energy's Board of Directors, apart from its 2008 evaluation of a new construction contractor (Elliott Construction) in terms of its safety record, has not paid as much attention to contractor safety performance as it has to employee safety performance. For example, Board meetings have a standing agenda item on employee accidents and various safety initiatives affecting employees are addressed periodically. But no formal information is routinely received by the Board on contractor safety performance.

Discussion on Finding 4-5

The two interviewed Directors expressed their full support for safe job practices and stated forcefully that they would not withhold approval of funds needed to meet required safety standards.[14] Both Directors expressed their personal distress over the deaths of Dobson Construction employees that occurred in 2006 and 2007 and said that, especially after the latter event, they had altered their views on the degree to which safe working practices must be enforced in Shelby Energy contractors. One Director expressed that contractor safety must be addressed "at the front end." And both expressed confidence in Elliott Construction, having carefully examined Elliott's safety record prior to approving Elliott's current contract. They contrasted their current views on managing contractor safety with the Board's prior approach of (1) relying primarily on the prior safety records and experience of contractors and (2) avoiding direction of contractor safety practices on the grounds that directing contractor employees may incur liability. The Board recognizes the importance of establishing a safety culture in Shelby Energy.

The Board was immediately and highly engaged in considering possible actions following the abovementioned death in 2007 of a Dobson Construction employee. The

[13] Ibid.
[14] Ibid.

Board was routinely briefed[15] as to the KPSC proceedings related to this death. The Board followed up with action within a reasonable time frame to terminate the Dobson Construction contract and to hire a replacement contractor with a demonstrated high level of commitment to the safety of employees and the public.

Minutes of Board meetings held over 2005-2008 contain regular reports on Shelby Energy employee accidents and work-related injuries. No regular reports are made to the Board, based on minutes of Board meetings over this period, of construction contractor accidents and work-related injuries.

Chapter 9 of this report, addressing Safety Practices, provides a recommendation on establishing additional focus on safety practices for the Board's and Management's action.

Finding 4-6

Shelby Energy's Policy 105, Key Performance Areas, is vague as to which performance areas should be addressed and reported to the Board. It is also silent as to the use of key performance measures.

Discussion on Finding 4-6

This is a policy that needs to provide a bridge between the strategic planning process and the budget process. Accordingly, this policy should be reviewed within the context of the strategic planning process to ensure consistency.

Identification of 'key performance areas' will yield little value without providing a mechanism to quantify the desired target level of performance over a predetermined time frame, and a process to measure achievements of the targets. Key performance areas will vary over time in response to internal and external factors.

Introduction of a 'balanced-scorecard'-style of approach to the introduction of KPIs will ensure line managers with responsibilities for managing resources to achieve the targets. A more detailed discussion on this issue is contained in the Financial Management section.

Recommendation Based on Finding 4-6

Policy 105, Key Performance Areas, should be reviewed by the Board and expanded in the context of the recommended enhanced strategic planning process (refer to Recommendation Based on Finding 4-3).

[15] Minutes of Board meetings of November 29, 2007, December 27, 2007, March 27, 2008, April 24, 2008, May 28, 2008, and July 31, 2008.

Finding 4-7

Shelby Energy's Board of Directors does not set performance objectives for its CEO relative to an approved strategic plan and annual work plans.

Discussion on Finding 4-7

The Auriga Team reviewed the September 19, 2008 executive performance review of the CEO.[16] The review covered a reasonably wide spectrum: industry knowledge, employee relationships and development, organizational relationships, planning, administration, financial control, management effectiveness, decision making and judgment, and employee performance management.

The Board has provided periodic formal written performance reviews of its CEO since January 1, 2000.[17] The Board provided performance reviews of its CEO in August 2001, September 2004, and the abovementioned one in September 2008. The Board is to be commended that it periodically provides formal performance reviews of the CEO.

The CEO's 2008 performance review does not include quantitative performance objectives such as operating within the budget, achieving employee and contractor safety objectives, attaining a specified level of customer satisfaction, accomplishing specified ROW maintenance targets, and receiving KPSC approval for a rate increase.

Recommendation Based on Finding 4-7

The structure of the executive performance review should be enhanced through the inclusion of quantifiable performance objectives based on the strategic plan (refer to Recommendation No. 3-3) and consistent with the expanded Policy 105 (refer to Recommendation Based on Finding 4-6).

4.3 The Chief Executive Officer

In a well-functioning organization, the CEO is the primary contact with the Board and is entrusted in fulfilling all of the Board's directives, ensuring that all policies adopted by the Board are adhered to, managing the organization in its efforts to fulfill its strategic plan and annual work plans, and operating within given financial constraints.

Finding 4-8

Shelby Energy's CEO has an excellent grasp of Shelby Energy's budget, finances and rates. However, events in the first quarter of 2009 have led to uncertainty as to whether Shelby Energy will meet its 2009 TIER target of 1.32, as presented as part of the 2009 budget to the Board on December 18, 2008.

[16] Document No. G-3 in response to Data Request.
[17] Document No. 3-12 in Response to Data Request.

Discussion on Finding 4-8

The CEO's February 23, 2009 presentation[18] and interviews showed strong grasp of financial condition, cost elements, rates, rate-setting process, RUS lending requirements and loan conditions.

The approved 2009 Budget includes a 2009 TIER forecast of 1.32.

Both interviewed Directors expressed concern about SEC achieving its projected TIER for 2009. They are aware of the drop in revenues and the need for a rate application to the Public Service Commission.[19]

During the Auriga Team's presentation to Shelby Energy Management on April 7, 2009 of preliminary findings in the Management Audit, the CEO said she and Board acknowledge the current revenue trend no longer reflects the expectations in the approved Budget. She said there is no current intention to provide the Board with a revised 2009 Budget. A discussion and recommendation pertaining to the need for the CEO to provide periodic budget revisions or variance reports for Board consideration is contained in Chapter 5.

A discussion and recommendation on the critical issue regarding the loan covenant requirement for maintaining the TIER at no less than 1.25 is contained in the Chapter 5.

Finding 4-9

Shelby Energy's CEO communicates effectively with Shelby Energy's Board of Directors and prepares appropriate materials and recommendations to facilitate timely Board decisions.

Discussion on Finding 4-9

Board meeting agenda and minutes over the period 2005-2008 show an appropriately wide range of issues and decision items brought to the Board by the CEO for information and/or decision.

The two interviewed Directors said that the CEO called them immediately after the Dobson Construction accident in 2007 to inform them, followed up with updates as further information became available, and discussed options for Management's action in response to this accident. They went on to state that the CEO is in contact with them frequently when there are issues that deserve their attention [20]

[18] Powerpoint handout, February 23, 2009.
[19] Ibid.
[20] February 23-25, 2009 interviews with Directors.

Finding 4-10

Shelby Energy's CEO conducts formal annual performance reviews of her direct reports. Her direct report employees do not have written, measurable, performance objectives and accordingly the end-of-year performance reviews do not address performance against any measurable performance objectives.

Discussion on Finding 4-10

The Auriga Team analyzed the CEO's 2008 performance reviews[21] of:

- VP/Manager, Engineering
- Operations Manager
- Human Resources Manager
- Office Services Manager.

The 2008 reviews addressed performance based on 15 important but highly subjective assessments such as Job Knowledge, Problem Solving Ability, Self Motivation, Work Organization Skills, and Personal Appearance. Her direct report employees do not have written, measurable performance objectives and, accordingly, the end-of-year performance reviews do not address performance against any measurable performance objectives.

A recommendation relative to development of annual measurable performance objectives for Management employees is provided in Chapter 10.

Finding 4-11

The current organizational structure has too many departments/functions reporting directly to the CEO and limits the CEO's ability to provide effective leadership and sustain effective management of all aspects of Shelby Energy's operations.

Discussion on Finding 4-11

The organization of Shelby Energy is designed to provide coverage of all required functions with the flexibility required of a relatively small organization. Shelby Energy's staffing levels reflect the desire to control costs while achieving the required level of service. The current organization consists of the following positions (for each title, the number of positions, when more than 1, is shown in parenthesis).[22]

- CEO
- Vice President/Manager, Engineering
- Manager, Operations
- Office Services Manager

[21] Document No. 3-4 in Response to Data Request
[22] Document No. G-3 in Response to Data Request.

- HR Manager
- Supervisor, General Accounting
- Customer Service and Billing Rep (2)
- Customer Service Rep (4)
- Materials Technician
- Staking Technician
- Safety and Loss Control Coordinator
- IT & System Engineer
- IT Specialist
- Line Supervisor (4)
- Line Technician (5)
- Apprentice line Technician (3)
- Executive & Admin Assistant

The current organizational structure is shown in Figure 4.1. As shown, Shelby Energy is organized into four departments, with an additional two employees (Safety and Loss Control Coordinator and IT & System Engineer) reporting directly to the CEO, for a total of six direct reports to the CEO. Based on the Management Audit interviews[23] and a review of the existing organizational chart, the Auriga Team concludes that Shelby Energy's CEO, working with a tighter operating budget than in recent past, seeks to carry out all essential utility functions effectively and efficiently with a limited number of employees. However, in so doing, the CEO has taken on a high level of personal responsibility for a large number of functions. The CEO conceded in these interviews and in documents provided to Auriga[24] that she was planning to revise the organization structure and thereby reduce the number of direct reports.

[23] February 23-25, 2009 interviews.
[24] Future Organization Chart, Document No. G-3 in response to data request.

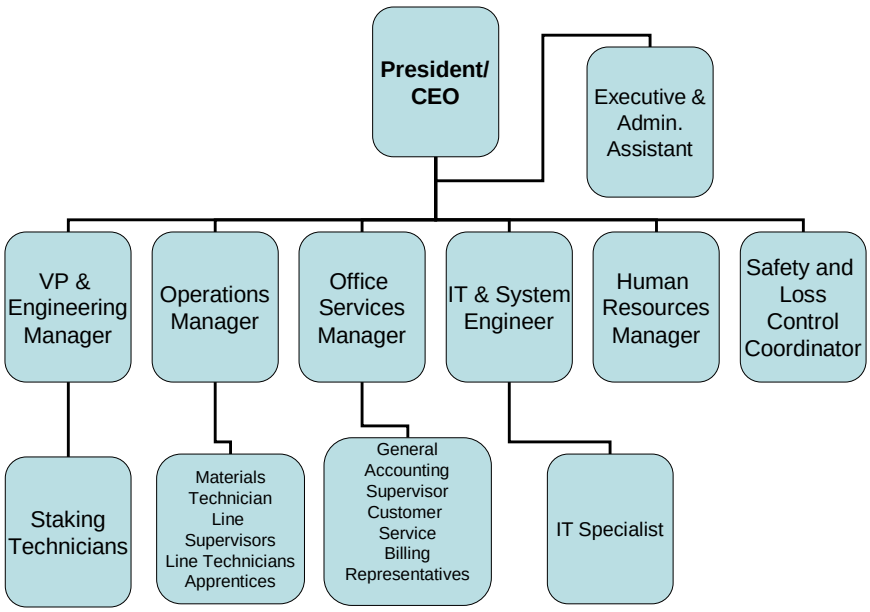

Figure 4.1 - Current Organizational Structure, Shelby Energy

Auriga believes that Shelby Energy's functioning would be enhanced if it implemented a simplified organization structure involving no more than four direct reports to the CEO, other than an Administrative Assistant. Such a structure is depicted in Figure 4.2. This structure would free the CEO to focus on high priority work, including strategic planning, and on ongoing interaction with the Board. The delegation of authority would be much clearer with this structure compared to the existing structure:

- The Manager of Finance would be responsible for internal systems and processes, such as accounting and payroll, as well as interactions with, and reporting to, the RUS and the KPSC. The Manager of Finance should be an accountant or equivalent financial professional. A CPA qualification would be highly desirable.
- The Manager of Operations, Maintenance and Construction would be responsible for maintaining and operating the distribution system, as well as construction of new or replacement facilities. The Manager would also be responsible for safe field work practices. In a REC such as Shelby Energy, necessary qualifications for a candidate in this position should include extensive experience with distribution maintenance, extensive experience with outage restoration, and a track record of sustaining safe work practices.
- The Manager of Engineering would be responsible for long-range planning for upgrades and replacements to the physical distribution assets, including SCADA, as well as design/specification of new or replacement distribution facilities. Highly advisable qualifications include an electrical engineering degree (BS),

registration in the Commonwealth as a professional engineer, and at least five years experience (ten years preferred) in electric utility engineering.

- The Manager of Customer Services would be responsible for processes directly involving the Members. The Manager of Customer Services should have a track record of establishing good customer communications and overseeing customer billing and payment processing functions.

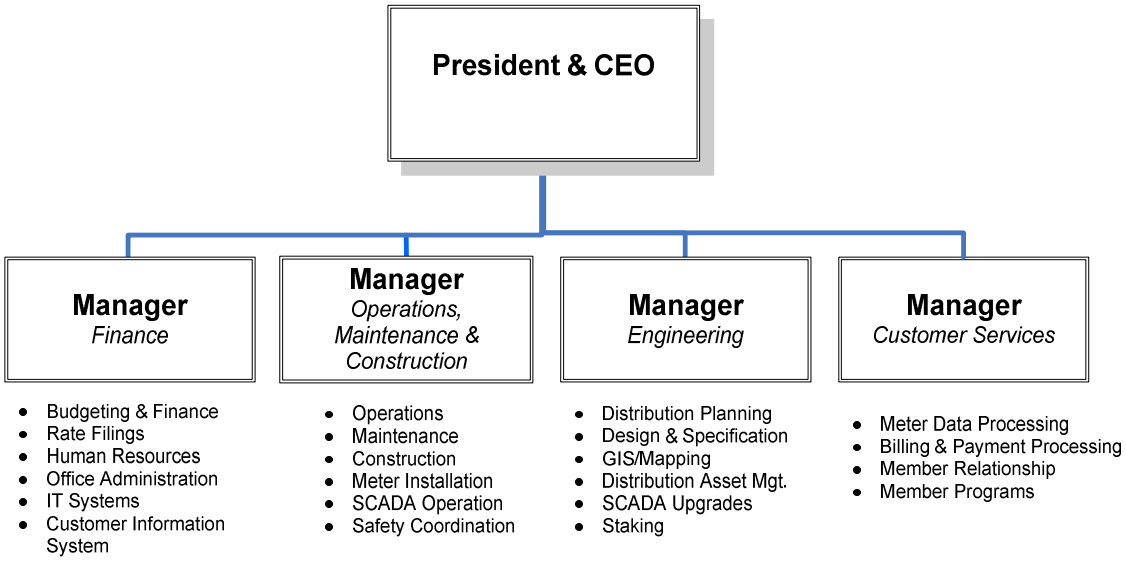

Figure 4.2 - Recommended New Organization Chart

Note that Figure 4.2 does not list all of the functions currently carried out within Shelby Energy. The primary functions are listed to provide an indication of what the Auriga Team advises would make logical sense and enhance clarity of delegation. In general, the administrative functions are grouped under Finance, field work on the physical distribution system is grouped under Operations, Maintenance and Construction, planning and design of the physical distribution assets are in Engineering, and the Member-facing functions are grouped under Customer Services.

Recommendation Based on Finding 4-11

Implement a new organizational structure with no more than four departments reporting to the CEO -- to increase the clarity of delegation and to reduce the day-to-day management burden on the CEO. The four departments should be (1) Finance, (2) Operations, Maintenance and Construction, (3) Engineering, and (4) Customer Services.

Finding 4-12 Shelby Energy's CEO prepares for Management succession by internal re-assignment and promotion but may not have sufficiently experienced internal candidates to fill key positions if vacated in the near future.

Discussion on Finding 4-12

The CEO has given thought to Management succession planning[25]. However, a formal organization-wide succession plan has not been developed for Board consideration.

The Vice President/Manager, Engineering, the Manager, Operations, and the Manager, Human Resources will soon be able to retire with full benefits. The CEO is developing a succession plan for these positions. The CEO has developed a consolidation plan for the positions of Vice President/Manager, Engineering and Manager, Operations for implementation should one or both of the incumbents retire.

The CEO has developed a planning level organization chart[26] combining and redefining some functions for greater efficiency and accountability. This planning level organization chart should be reviewed in light of the prior finding and recommendation regarding a new organizational structure.

The CEO has begun the process of identifying internal candidates for the senior Management positions that report to her[27]. In light of the prior finding and recommendation regarding a new organizational structure, the succession plan should address first and foremost the three direct report positions to the CEO.

The CEO's approach to succession planning for office staff involves cross-training[28]. This has the added benefit of ensuring that when an employee is absent or leaves his/her position, there is at least one other person who knows the critical functions of the job.

Given that Shelby Energy has 29 employees – 13 being officers, managers and staff typically located in the office and 16 being maintenance and construction employees typically working out in the service territory -- the choice field for suitable internal candidates is very limited. In some cases, as in the selection of the Safety and Loss Control Coordinator, the results are apparently satisfactory[29]. In other cases, the results achieved by looking internally may not be fully satisfactory.

A finding and recommendation regarding succession planning is presented in Section 10.1.

Finding 4-13

Shelby Energy has developed and updates periodically a set of policies[30], which are approved by the Board. Although this set of policies is reasonably comprehensive and appropriate, there are some gaps that should be addressed.

[25] February 23-25, 2009 interviews.
[26] Document No. G-3 in Response to Data Request.
[27] February 23-25, 2009 interviews.
[28] Ibid.
[29] Ibid.
[30] Document No. 2-2 in Response to Data Request.

In addition, the absence of detailed written procedures may lead to errors of omission or confusion as to who is responsible for which deliverable result. These areas, as further developed in subsequent sections, include but are not limited to:

- Adjustment of rates to incorporate EKPC rate changes
- Customer/Member metering, billing and related functions
- Cash and credit management
- Crew dispatching and hazardous energy control

Discussion on Finding 4-13

Policies provide an organization with the guiding framework for management's day-to-day operating decisions in order to realize the desired institutional outcomes as determined by the Board. Where appropriate, detailed business processes should be developed to follow directions set in policy.

Within each of the functional areas addressed in this Management Audit, there are significant gaps in the scope of Board-approved Policies and a general lack of scope and depth of procedural documentation.

More detailed discussions and recommendations pertaining to the important issues related to policy and procedures are found in each section of this Report. Those recommendations clarify the need for Shelby Energy to identify a broader scope of policies that would be appropriate for the CEO to propose and for the Board to consider. In addition, those recommendations should lead to initiation of an internal project involving the management team driving development of detailed step-by-step operating, technical, administrative and financial procedures that should be presented in a standardized manner for ease of reference by all personnel.

Finding 4-14

A significant level of tension, accompanied by poor communication, exists among senior Management personnel.

Discussion on Finding 4-14

The CEO indicated specific concerns that can generally be characterized as lack of cooperation and poor communication among senior Management employees.[31] The Board is also aware of and appears to share these concerns.[32]

A review of 2008 written performance reviews[33] supports the finding of instances of poor communication at the senior Management level.

[31] February 23-29, 2009 interviews with Directors.
[32] Ibid..
[33] Document No. 3-4 in Response to Data Request.

Poor communication among senior Management employees is consistent with the Auriga Team's observations during the February 23-25 and April 6-7, 2009 interviews.

Problems between Management employees are a distraction to all Shelby Energy employees, which can lower the overall effectiveness of the entire employee team in terms of accomplishing the company's mission, including safety and customer service, and can cause employee morale problems.

Recommendation Based on Finding 4-14

Shelby Energy's Board of Directors should hire the services of a management consultant who specializes in identifying and resolving organizational issues. The consultant's deliverables should include (1) a report to the Board, to be provided in closed session, as to the nature of issues that exist currently at the senior Management level and recommendations for Board action, if the consultant deems warranted, and (2) guidance to the CEO as to actions that may be taken to resolve the issues identified.

5 FINANCIAL MANAGEMENT

In the context of this Management and Operations Audit, the scope of Financial Management includes a review of strategic planning activities, policies, procedures and automated/manual business processes that provide for effective financial planning and control. In addition, this Audit will consider the current financial performance of Shelby Energy and critical factors that should be recognized as having potential significant negative impact in the short to medium term unless appropriately mitigated.

Financial Management Defined: Financial Management is appropriately a top-down ongoing annual process. It typically comprises

- Strategic Planning, whereby the Board and senior executives develop statements of corporate mission / objectives / goals that articulates the overall direction and provides the framework for allocation of limited resources within the budget development exercise;
- Financial Planning (Budgeting), whereby department submissions are developed and, through any necessary iterations, are accepted by the senior Executive(s) and aggregated for submission to the Board for approval;
- Cost Management is the ongoing process whereby line management monitors utilization of resources and identifies costs of operational activities;
- Performance Measurement accounts for outcomes and outputs of the company and its departments regarding targets and budgets;
- Reporting provides for a cost reporting structure to support effective management decision making and preparation of financial reports in compliance with predefined standards;
- Financial and Accounting Policies and Procedures provide structured documentation that ensures the specific Financial Management processes of the company are consistently undertaken as approved by the Board and/or company executive management.

5.1 Financial Planning (Budgeting) Process

Finding 5-1

The Board of Directors has been engaged in establishing an annual Strategic Plan for Shelby Energy[34] but it is not adequately integrated into the budget process.

[34] Agenda for Board meetings and Annual Strategic Plan 2009.

Discussion on Finding 5-1

The integration of strategic planning with financial planning ties strategy to actions. Tactical plans are those activities and/or deliverables necessary to achieve the strategic vision. Through structured integration, financial plans and budgets are directly related to the strategic plan.

It is a key responsibility of the Board to provide Shelby Energy with the strategic vision for the coming year(s). It is the responsibility of Senior Management to provide the mechanisms to establish budgets that are directly related to achievement of the strategic plan for the financial planning period. Following a review of Shelby Energy's 2009 Workplan and Budget coupled with the strategic plan[35], the Auriga Team confirms that there is no specific linkage between the top-down strategic level plan and the bottom-up tactical-level budgets. Also, it is apparent that there are no metrics embedded in the financial reporting processes to monitor and control achievement of the specific elements of the strategic plan.

Policy P102 (Functions of the Board of Directors) does not provide details as to the scope of the strategic plan, it's purpose or the relationship to annual financial planning to enable performance monitoring of achievement of the strategic plans. Policy P301 (Annual Work Plan and Budget) does not set out a mechanism to ensure corporate strategies drive planned expenditures, with consequent monitoring mechanisms. Likewise, P105 (Key Performance Areas) makes no mention of the use of key performance indicators (KPIs) at either the corporate level or for individual departments from where the budgets are created and managed.

Following a review of the contents of the previous year's issues of Kentucky Living and the Shelby Energy website, there was no evidence that the annual strategic plan has been disseminated to Shelby Energy stakeholders. It would be most desirable for Members in general to have easy access to this Plan in a version that would be appropriate to that audience.

Recommendations Based on Finding 5-1

1. **Annual budgets should identify linkages to the appropriate elements of the Board-approved Strategic Plan.**
2. **CEO presentation of the recommended annual budget to the Board should identify alternative funding components considered, even if not recommended, that would advance fulfillment of the Strategic Plan.**
3. **The Strategic Plan should be prepared in a suitable format for public consumption, made available through the Shelby Energy website, and updated periodically.**

[35] Response to Data Requests F9, F10, F18, and F21.

Finding 5-2

1. Budgets are developed annually and presented in accordance with formats prescribed by RUS, but these formats do not provide an effective format for internal monitoring and control at either departmental or corporate levels.
2. Changing conditions that create significant variances to the approved budget are not presented to the Board within the budget year along with a recommendation for approval of a revised budget.

Discussion on Finding 5-2

Details of the annual budgets (O&M, Operating and Capital) are set out[36] in accordance with the objects and categories prescribed by RUS, which ensures monthly reporting of financial budget performance data to RUS in the prescribed formats. Monthly budget performance reports utilizing the same formats are submitted to the Board. The formats of these reports are adequate for submission of periodic reports to RUS, but not for internal monitoring of budget performance. Revised formats for Board review that break down the budget by department or functional area would allow greater control by department/function and would facilitate use of KPIs for enhanced performance management. These improved formats will not obviate the need to provide RUS with the budget-related documents in their prescribed formats.

Board approval of budget proposals typically occurs once per annum. However, when changing conditions renders key aspects of the approved budget significantly invalid, there should be a budget revision presented to the Board. During the presentation of Preliminary Findings of this audit on April 7, 2009, the CEO advised that, in the monthly budget performance presentations to the Board, significant variances between expected actual vs. budget are noted, but that there is no formal budget revision. This is particularity evident in the 2009 operating budget where it seems likely that revenues are overstated. The existing Policy statements that deal with Budget and Financial Planning do not provide for any annual review of the appropriateness of the previously-approved budget, nor do they set threshold limits which would trigger a formal budget revision for presentation to the Board. The optimal time frame for such a review and, if appropriate, a recommended revision would be mid-year.

There is an alternative approach to a Board-approved budget revision, whereby on a periodic basis (quarterly or semi-annually) the variances between budget and actual are presented to the Board to ensure the Board is formally appraised of significant variances and formally accepts (approves) the justification put forward by management for the significant variances being realized. However, this approach reduces the effectiveness of managing costs at the departmental level on a line-item basis against an approved target, which would be one of the key operational KPI's needed to monitor the effectiveness of line managers individually.

[36] Responses to Data Requests F9 through F21.

Recommendations Based on Finding 5-2

1. **The CEO, in consultation with the Board, should develop new budget formats that facilitate departmental and corporate controls and performance monitoring. Policy 301 should be reviewed in consideration of these changes.**
2. **Policies P301, P102, and P105 should be modified to specify the criteria that would trigger a midyear recommendation of a budget revision for Board approval.**

5.2 Accounting Policies, Procedures and System

Finding 5-3

Shelby Energy properly utilizes the Uniform System of Accounts (USA) as prescribed by RUS.

Discussion on Finding 5-3

Shelby Energy uses the Uniform System of Accounts-Electric as defined in Bulletin 1767-B-1, Rural Utilities Service (RUS), United States Department of Agriculture (USDA) which sets out the accounting policies and procedures prescribed for RUS Electric Borrowers.

The Bulletin not only sets out the detailed chart of accounts but also prescribes the content of every account, and demonstrates journal entries and account numbers to be used in recording unusual transactions. This provides Shelby Energy with a formal structured reference manual that facilitates training of new (and rotated) staff in the proper recording of accounting transactions and ensures consistent recording of like transactions over time.

Although there are more rigorous uniform systems of accounts available for electric distribution and supply companies, this RUS Bulletin is appropriate for a utility the size of Shelby Energy.

Finding 5-3 is satisfactory and does not lead to a recommendation.

Finding 5-4

Shelby Energy's Financial Policies and associated procedures are not adequate in scope, nor are they set out in a structured format, to ensure consistent compliance by all personnel in all financially-related activities.

Discussion on Finding 5-4

Beyond the scope of the RUS Uniform System of Accounts (regarded as an Accounting Policy and Procedures directive), Shelby Energy needs to define, approve and provide to all appropriate staff a departmental subset of relevant Financial and Accounting Policies

and Procedures to guide staff in their day-to-day activities and thereby ensure consistent and appropriate application of the approved policies and procedures.

The complete list of Finance and Accounting Policies as provided to the Auriga Team is as follows:

POLICY NO.	TITLE
301	Annual Work Plan and Budget
302	General Fund Working Capital and Reserve funds
303	Equity Management
304	Use and Signing of Checks
305	Rural Economic Development Assistance
306	Audit Committee
307	Cash Drawers/Registers
308	Cooperative Credit Cards
309	Petty Cash Fund
310	Inventory Control

In addition to the above listed Policies, other policies contained in policy groups described as other than Financial or Accounting, but which could be described as Financial or Accounting policies are:

POLICY NO.	TITLE
402	Financial Planning
603	Depreciation Rates
701	Purchase and Use of Cooperative Vehicles
702	Purchasing of Goods and Services

For illustrative purposes only (not to be construed as a complete list), other topic areas where formal Finance & Accounting Policies would normally be expected to be approved by the Board are:

- Internal Audit / Internal Control
- Financial KPIs
- Tendering
- Accounts Payable
- Travel Expenses
- Tax Collection / Remittance
- Reserves
- Inventory Valuation
- Scrap and Surplus Materials and Equipment
- Write-off of Bad Debts

- Information Systems (examples of content follow)
  - System Integrity and Security
  - Network Architecture and Performance
  - Information Resources Management
  - Software acquisition

The lack of a comprehensive suite of definitive financial and accounting policies and procedures creates dependencies on individuals as repositories of institutional knowledge as opposed to having structured and approved documentation that will provide standards for ensuring sustainability of approved policies and procedures. These policy and procedure documents become the core mechanism for training staff.

Auditors are more readily able to assess the effectiveness of the organization's accounting controls and procedures by referencing the Finance and Accounting Policies and Procedures Manual. Transactions that do not comply with policy are thereby easier to detect. Documented policies that are adhered to should reduce the amount of tests of control that an auditor will undertake during an audit, which may result in savings. In the absence of Board-approved policies and CEO-approved procedures, the effectiveness of an internal audit program is compromised.

IT Policies are grouped in the Financial and Accounting discussion primarily because there are direct relationships with information and telecommunications management and the key issues pertaining to Information and Communications Technology have not been specifically identified in this Audit's scope.

Procedures are distinct from policy. Procedures define the step-by-step activities required to undertake a specific task, and the specific position assigned those responsibilities. An example of the use of a comprehensive set of procedures would be to specifically reference appropriate procedures to individual job descriptions. There is most often a link between a policy and the procedures that are set out to accomplish the objective(s) of that policy. Policy statements are always Board approved, whereas procedures are not typically approved by the Board but represent detailed directives from Management to staff. Training staff in the mechanics of executing their duties is most effective when documented procedures are available to provide staff with definitive instructions, and are available for ongoing reference.

Financially-oriented procedures were listed in the documents provided by Shelby Energy, which are subordinate to the Board policies:

PROCEDURE NO.	TITLE
6	Credit Card Payments
10	Travel Time
13	Daily Bank Deposit Preparation and Delivery
14	Cash Drawers / Registers
16	Payroll Process
17	Petty Cash Fund
19	Signing of Checks

These listed procedures do not cover the needed scope of documentation to support all day-to-day and other periodic financially-oriented activities.

The question arises whether Shelby Energy, because it is a very small electric company, needs a broader scope of documented financial and accounting policies and procedures than has been developed. The Auriga Team is of the view that institutional effectiveness and internal control is equally critical to both large and small electric utilities, and the provision of a broader scope of Board-approved financial and Accounting Policy statements coupled with a comprehensive manual of procedural directives will enhance the overall managerial, administrative and technical performance of Shelby Energy. Recognizing the limited resources of Shelby Energy in this respect, a useful first step would be for Management and the Board to examine the suite of existing policies to identify additions that would enhance institutional effectiveness.

Recommendations Based on Finding 5-4

1. **The CEO should develop, and seek Board adoption of additional Finance and Accounting Policies to address the gaps in existing policies.**
2. **The CEO should establish a standard format for all procedure documentation.**
3. **Management should develop detailed procedures in support of each Finance and Accounting Policy to augment the operating instructions associated with transactions-processing details contained in the Uniform System of Accounts and the General Accounting Information System.**

Finding 5-5

Shelby Energy's use of information systems from South Eastern Data Cooperative (SEDC -- a Georgia-based member-owned data processing cooperative) is effective for its general accounting applications.

Discussion on Finding 5-5

The Accounting solution from SEDC (UtiltyPOWERnet) incorporates the RUS USA, thereby providing Shelby Energy with an off-the-shelf product that satisfies the RUS reporting requirements and provides a suitable chart of accounts for internal transactions processing. The product suite as implemented provides automated support for the core financial functions of Shelby Energy. SEDC provides contracted system administration services.

SEDC is a well-established provider with over 200 utility customers in 33 States.

Finding 5-5 is satisfactory and does not lead to a recommendation.

5.3 Financial Management Oversight

Oversight of Financial Management takes the form of Cost Management, Performance Management and Reporting Processes.

Finding 5-6

Shelby Energy should provide for an ongoing internal audit process through Board-approved Policy.

Discussion on Finding 5-6

Strong internal controls serve as prevention, deterrence, and detection measures for fraud and mismanagement. However, fraud can be difficult to detect because it often involves concealment through falsification of documents or collusion. Therefore, it is important to place a strong emphasis on prevention, which may reduce opportunities for wrongdoing to take place, and deterrence which could persuade individuals that they should not commit fraud because of the likelihood of detection and punishment. Additionally, prevention and deterrence measures are much less costly than the time and expense required for fraud detection and investigation. Management is responsible for implementing a system of internal controls.

Effective internal control will include a well-developed control environment, an effective and secure financial information system, and appropriate control and monitoring activities. Because of the importance of information technology in supporting operations and processing of transactions, management also needs to implement and maintain appropriate controls, whether automated or manual, over computer–generated information.

Shelby Energy has previously entered into an arrangement with an independent professional accountant to conduct an internal financial audit exercise, which resulted in some specific recommendations to improve internal controls on selected processes. The Auriga Team has reviewed the detailed outcomes of that previous audit exercise and

observes that useful advice was provided to Shelby Energy management for improving selected financial processes to improve internal controls.

The Auriga Team has been advised that an internal financial audit exercise will commence at the end of the 2nd Quarter 2009 with a new independent professional accountant based on a specific approval from the Board to enter into a contractual arrangement for the 2009 fiscal period audit activity.

The importance of an ongoing internal audit program should be established by Board policy and should not be subject to annual recommendations by the executive to the Board which may not be approved due to a variety of considerations. That is not to say that the appointment of the internal auditor should not be reviewed annually based on performance. However, in order to optimize value of the audit program to Shelby Energy through continuity of the appointed auditor, alternative approaches to implementation of an ongoing and continuous internal audit programs should be considered including a shared contract with other energy cooperatives or contracting internal audit services from EKPC.

In recognition of the cost and impact on Management's time to arrange and/or receive a comprehensive audit, the Board should consider a program over a two-year or three-year cycle (three years being the limit), whereby internal controls are comprehensively tested during the cycle. In addition, financial transactions should be tested comprehensively in each cycle.

Recommendation Based on Finding 5-6

Board-approved policy should be established to require a regular internal audit program over a three year cycle, including financial transaction tests, with tests of internal controls to be performed each year.

Finding 5-7

Management's monthly reports to the Board containing detailed budget performance are in the RUS-prescribed format and do not present variances by department or functional area.

Discussion on Finding 5-7

The documentation provided to the Auriga Team that sets out the monthly budget performance report to the Board does not contain the details of Management's explanations of variances between actual costs and budgets, nor does it contain Management's intended action plan to either achieve the budget or acknowledge that the variance will not be able to be corrected. This approach will provide an expanded focus on accountability for cost management by the line managers responsible for development of departmental budget proposals.

Outputs from the internal General Accounting Information System[37] provides line management and the CEO with monthly actual vs. budget information.

Recommendation Based on Finding 5-7

The budget policies should set out tolerance levels of variances for the entire operating budget (e.g., +/-5%) and for each account in each department/cost center (e.g., +/-10-25% or $40,000-$100,000) and, on a monthly basis, the formal budget performance submissions to the Board should contain explanations for all variances that exceed the prescribed tolerance levels.

Finding 5-8

Current annual reporting of KPI results, consistent with CFC and RUS methodology, is not adequate for establishing a full range of annual performance targets and for internal performance monitoring. There are no internal KPIs that are used to monitor individual or departmental performance.

Discussion on Finding 5-8

There is available to the Board and CEO a vast array of KPIs from external sources to assist in identifying appropriate financial (and operational) ratios. Current annual Shelby Energy KPI reporting, which could conceivably point to critical factors exceeding norms for cooperatives, is all 'after-the-fact.' To undertake a more proactive stance would require the Board to set targets for those KPIs that are either indicative of problems that need active management or are crucial to the ongoing success of Shelby Energy. This approach would best be contained within the Strategic Planning process, thereby becoming a key driver for financial (and operational) planning at the department and executive level, and providing a monitoring mechanism within the periodic budget performance reporting process.

The CEO should identify those KPIs that, if proactively managed, would assist Shelby Energy in achieving the appropriate levels of financial performance, establish the annual targets for the selected ratios, and introduce those targets into the financial planning and budgeting processes. Although not a complete or even a recommended list of such KPIs, the following is a list of selected KPIs that, in the current situation, should be considered for use when setting strategic financial targets for improving Shelby Energy's balance sheet:

- TIER
- Debt Service Coverage
- Equity Ratio
- selected Electric Revenue Ratios
- Actual Expenditures vs. Approved Budget - % Variances

[37]Response to Data Request F10.

- Operating Margins Ratios

The 'balanced scorecard' is a strategic planning and performance management system that aligns business activities to the vision and strategy of the organization and monitors organization performance against strategic goals. This is a well-established and proven-effective mechanism that could be introduced into Shelby Energy and is not software dependent (although there are quality software support tools available).

The introduction of specific KPIs into the Strategic Plan should also be incorporated into departmental performance monitoring insofar as any individual department has the ability to contribute specifically to achievement of any strategic KPI. Monthly performance reports to the CEO and subsequently to the Board should include an analysis of prescribed departmental KPIs.

KPIs are not now specified at the department level for performance monitoring on a monthly basis within the Strategic Planning, the Budget process or the employee performance appraisal process.

Although the KPIs set out by CFC and by RUS are extremely useful in monitoring overall corporate performance after the fact, the more critical KPIs in terms of financial performance, customer service and system performance should have targets established within the annual planning cycle for ongoing measurement and management of realization of the targets.

Additional KPIs that would assist in monitoring internal departmental or individual manager's contributions to the achievement of the corporate strategic targets have not been defined. These internal KPIs could be stand-alone metrics or be derived from and be seen as subsets of the corporate KPIs and would be incorporated into the quantitative metrics for internal performance management against prescribed targets. Examples are:

- Operating Budget Performance - % variance by account
- Capital Project Performance (budget, schedule)
- Billing Performance (% unbilled monthly; Inaccurate bills; payment posting complaints)
- Customer satisfaction target %; Number of customer complaints to KPSC
- New connections (low voltage; high voltage)
- Sick time [measure of employee wellness and motivation]

Recommendation Based on Finding 5-8

The senior management team, with Board input, should define critical KPIs in the Strategic Planning process, set specific operational and financial targets to be realized during the budget period to be used as guidance by Shelby Energy managers in budget preparation, and report the KPI results in the ongoing budget performance reporting process.

5.4 Financial Health of Organization

Finding 5-9

Critical decisions need to be taken to achieve and maintain the RUS-prescribed minimum TIER level of 1.25.

Discussion on Finding 5-9

TIER dropped below the lender-prescribed threshold of 1.25 in 2008. The projected 2008 TIER fell to 0.92, as reported to the Board in Management's 2009 budget presentation. (The actual TIER at the end of the 2008 financial year is not available to the Auriga Team as of the date of this Audit report.) The CEO advised that this situation will not impact Shelby Energy's ability to borrow from RUS and CFC for some time because Shelby Energy has pre-authorized ~$6m available in a line of credit in addition to ~$10m available in the current four-year work plan loan.

The 2009 budget projects the 2009 TIER as 1.32. That outcome assumes revenue increases of 11.9% over 2008, including pass-through recovery of increased wholesale power costs. The Board is aware of the current revenue shortfalls and that the full-year 2009 revenue projections may not be realized.

The CEO has advised that a request for a rate increase, along with the requisite cost-of-service study, will be filed with the KPSC in 2009, but the rates, if approved, will not become effective during the 2009 fiscal year.

Financial Policy 303 (Equity Management) sets out the goal for TIER levels to be maintained continuously at 1.5xs - 2.0xs. To meet this goal, Shelby Energy must pursue a rate application with the KPSC as soon as possible.

Recommendation Based on Finding 5-9

The CEO should present to the Board for its review and approval, no later than at its August 2009 meeting, a plan and a schedule, with specific milestones, for maintaining TIER of at least 1.25.

5.5 Rate Structure

Finding 5-10

An increase in retail tariffs in the near term is inevitable.

Discussion on Finding 5-10

The last adjustment to the tariff in respect of distribution costs was in 1983. Since that time, the pace of growth of revenues from sales has kept pace of growth of costs of electric services, until 2008. The impact of continued delay in implementing a tariff increase will be seen in Shelby Energy's KPIs, but most significantly in maintaining the TIER prescribed by RUS as a covenant to loans currently outstanding.

Sales load growth/revenue from electric sales calculated as a % increase over the previous year (as reported in the 2008 fiscal year-end financial performance reports) was:

COMPARATIVE PERIODS	% ANNUAL KWH SALES GROWTH	% ANNUAL $ SALES GROWTH
2004 > 2005	6.14	20.6
2005 > 2006	(1.99)	4.7
2006 > 2007	5.04	9.1
2007 > 2008 *	(2.36)	1.4
2008 > 2009	TBD	(Actual to forecast) 11.9

* Nov and Dec estimated

The average annual actual kWh Sales growth over the 2005 to 2008 four year period was 1.71%. The 2006-2008 three year average is only 0.23%. The 2005-2009 load forecast determined that the annual growth over that period would average 4.1 % over that same period. Average annual revenue growth from electricity sales over the same period was 8.95%, but looking at only the three year annual average from 2006 through 2008 we see a significantly lower average of 5.1%. The 2009 budget for revenue from electric sales is 11.9% over the estimated 2008 actual. This budget increase is driven by increases in wholesale power costs.

In terms of the total costs of delivering electric service, the annual average increases year-on-year from 2005 through 2009 (budget) have been:

COMPARATIVE PERIODS	% TOTAL ELECTRIC SERVICE COSTS - ANNUAL GROWTH
2004 > 2005	17.3
2005 > 2006	6.0
2006 > 2007	9.7
2007 > 2008 *	4.8
2008 > 2009 forecast	9.5

* Nov and Dec estimated

The 2006-2008 three year average annual growth in total electric service costs is 6.8%, driven by increases in wholesale power costs. This exceeds the average annual growth in revenues from electric sales over the same period by 1.7%.

In addition, as margins are reduced, the Equity Ratio will be further jeopardized. However, Shelby Energy Management believes that a range of 30-40% equity is acceptable given the Board commitment made in 2005 to begin annual retirements of patronage capital. Since 2005, approximately $1.1m, in addition to estate refunds, has been refunded to members. The four-year trend in Equity Ratio is:

	Equity Ratio
2005	40.32
2006	38.54
2007	38.74
2008	37.27

Rates for electric distribution companies must meet the twin objectives of covering the costs of providing electric service and maintaining affordability for customers. Rates must be set at a level so that the utility can meet its TIER obligations.

Shelby Energy has rates that vary by customer class, as shown in the tables below. The basic rate classes are residential, commercial and industrial. In each category, the volumetric rates (charges for kWh of usage) decrease with increasing usage levels. In addition, all classes have a fixed demand charge. Average rates in 2007 for Shelby Energy customers, exclusive of the EKPC fuel cost adjustment and energy surcharge amounts, were as shown in Table 5.1.

Table 5.1 - Average Rates Shelby Energy, 2007

Customer Class	Rate - ¢/kWh
Residential	8.41
Commercial	7.79
Industrial	6.01

In addition to the distribution, generation and transmission charges, there are two additional charges on the bills:

- Fuel Cost Adjustment (charged on a per kWh basis)
- Environmental Surcharge (charged on percentage of total costs before taxes and fees.)

Both of these charges are pass-through charges from EKPC. The charges are the same for all customer classes -- residential, commercial and industrial. Approximately 80% of the total costs charged to customers are not controllable by Shelby Energy – they are a pass through of EKPC costs.)

Shelby's 2007 average annual electric rates relative to the aggregate of 19 Kentucky electric cooperatives and the three main investor owned utilities in the state were as shown in Table 5.2.

Table 5.2 - Rate Comparison

Customer Class	2007 Rates c/kWh				
	Shelby Energy	Avg. of Kentucky Distrib. Co-ops[38]	Louisville G&E	Kentucky Utilities Co.	Duke Energy Kentucky
Residential	**8.41**	**8.24**	**6.88**	**6.28**	**7.90**
Commercial	**7.78**	**8.47**	**6.41**	**6.15**	**7.32**
Industrial	**6.01**	**6.39**	**4.55**	**4.83**	**6.50**
Average	**7.48**	**7.72**	**4.90**	**5.45**	**7.37**

Based on the above comparison, Shelby Energy's rates are slightly below the average rates for other Kentucky cooperatives that receive wholesale power from EKPC but are higher than the rates charged by investor owned utilities in the state. In summary, Shelby

[38] KPSC Annual Report Statistics – 2007.
http://psc.ky.gov/utility_financial_reports_NET/stats/200_233.pdf.
Kentucky distribution cooperative average based on cooperatives receiving wholesale power from EKPC.

Energy has some pricing pressure relative to its neighboring utility suppliers. Factors that drive its costs relatively higher are expected to be:

- Wholesale power costs derived from EKPC.
- Economy of scale in administration and operations relative to the two neighboring investor-owned utilities and the larger cooperatives.
- Relatively low customer density among Kentucky electric cooperatives.

Shelby Energy has not increased its distribution rates since 1983.[39] Shelby Energy has made efforts to control costs through partnering with a neighboring cooperative and outsourcing through qualified consultants due to the decline in growth that is a direct result of the recent economic downturn. Even though Shelby Energy Management is convinced of the need for a rate increase as soon as possible in order to meet financial objectives as discussed above, there is concern about the impact of a rate increase on Shelby Energy's lower income residential customers. In addition, due to current economic conditions, there is increasing risk of loss of industrial customers.

Recommendation Based on Finding 5-10

The highest possible priority should be assigned to preparation and submission of a tariff increase filing during 2009.

[39] February 23-25, 2009 interviews with CEO.

6 MEMBER FUNCTION

As a cooperative, Shelby Energy is a member-owned organization. Since its Members (customers) have an ownership stake in the success of the cooperative, the relationship between its Board and Members, and between Management and Members, is closer than the arms-length relationships generally found between U.S. public and privately owned utilities and their customers. Ultimately, Shelby Energy has a responsibility to its Members as owners and the sense of duty this conveys is tangible among the Board Members and Senior Management of Shelby Energy.

Energy Member functions refer to the interactions between Shelby Energy Cooperative and its members (customers). This section examines the operations of Shelby Energy with respect to its members. It covers the following areas:

- Customer Connections
- Rates
- Meter Reading
- Billing and Payment
- Customer Service.

In each area, the Auriga Team has identified its findings based on a review of documentation provided by Shelby Energy, interviews with Shelby Energy employees and observations during on-site visits. Where the findings identify opportunities for improvement in ongoing operations, the Auriga Team has identified specific recommendations for each aspect reviewed.

6.1 Customer Connections

New customer connections are one of the areas of electric distribution operations that involve several different departments (Customer Services in all cases, Engineering when new physical connections must be designed/specified, and Operations to connect up the new customers). Clear communication and effective coordination between these departments is required for effective operations. A well-functioning customer connection process requires a well-documented procedure outlining the required action steps, the responsible staff member for each step, and the timing for completion of the action steps.

The Auriga Team reviewed Shelby Energy's process for new customer connections.[40] Auriga also reviewed documented information supporting the customer connection process.[41] The Customer Service and Billing representatives interviewed described the customer connection process. Coordination of new customer connections is the responsibility of the Customer Services department, but specific tasks are also assigned to

[40] February 23-25 and March 12, 2009 interviews with Customer Services and Billing representatives, a Staking Technician, a Customer Service Representative and the VP/Manager of Engineering.
[41] Document No. 4-6 in Response to Data Request.

the Engineering and Operations departments. Customer Services is responsible for working closely with Engineering to ensure that all construction requirements are met, and with Operations to coordinate the physical customer connection.

When a new customer calls in to request service (the same procedure is used for residential, commercial and industrial customers), a Customer Service Representative types up a service request, i.e., a job order. This is sent to a staking technician who goes out to the customer site. Based on the staking technician's report, the Manager of Engineering gives the customer service representative a list of what needs to be done before the customer is connected. The customer service representative assigns a work order number, and includes a list of what is needed prior to connection, e.g., underground ditch inspections. Once these items have been received by Shelby, the customer service representative sends instructions to Operations to make the physical connection.

The customer credit check process is automated.[42] The system runs a credit report that returns a green light/red light response. A red light response requires the customer to pay a deposit. The deposit is between $50 and $200 and is based on the historical usage at the same address. The new customer is mailed an application that they sign and return. The deposit is paid up front before new service is connected. The Office Services Manager enters the new customer details into the customer information system – Shelby uses South Eastern Data Cooperative (SEDC) accounting/payroll software. Usually, service is connected within 24 hours.

For industrial customers, several additional steps are required for meter installation. This activity is the responsibility of the IT and System Engineer. The customer provides an estimate of its load over a billing cycle and other load information, and Shelby Energy determines whether the customer can be served with existing facilities. If the customer load exceeds 500kW, the customer can be billed using a rate known as the "B" rate or an alternative rate known as the "non-B" rate. If the customer is placed on the B rate, Shelby contracts with EKPC to install the meter. Usually, industrial customers sign five year contracts, and will thus pay over an extended period for any additional facilities, such as transformers, required for connection.

Finding 6-1

New customer connections are coordinated across three different departments: Customer Service, Engineering and Operations. The absence of detailed written procedures documenting the responsibilities of each of these departments in establishing customer connections is likely to adversely impact the quality of customer service.

[42] Document No. 4-6 in Response to Data Request.

Discussion on Finding 6-1

There is currently no written procedure to document the complete process of establishing a new customer connection. The lack of such a written procedure is problematic for two reasons. First, it makes coordination between the departments more difficult and increases the likelihood of missteps in the customer connection process. Second, since Customer Services staff is undergoing cross-training, absence of a written procedure increases the difficulty of training new staff members to perform roles in this area.

Recommendation Based on Finding 6-1

Shelby Energy should develop a written procedure for new customer service connections -- to facilitate the handoff between Customer Services, Engineering and Operations, and to facilitate cross training within Customer Services. The procedure should include the following:

- **Procedure owner (one only)**
- **Date of adoption/revision of the procedure**
- **Signature of CEO**
- **Table of Steps that includes the following:**
  - **Responsible Employee (for each step, a single employee is identified as responsible)**
  - **Action Steps**
  - **Timing/Dates for completion.**

The Customer Service Connection Procedure should cover the following activities:

- **Response to customer requests**
- **Engineering requirements**
- **Physical connection of new customers**
- **Customer deposits**

6.2 Meter Reading

The meter reading function within an electric utility encompasses all of the activities involved in reading customer electric meters each billing period and transferring the meter reading data efficiently to the billing system without error.

Meter reading (residential/commercial and industrial) is outsourced by Shelby Energy.[45]

Industrial customers
Industrial meter reading is carried out by EKPC. Shelby Energy partnered with EKPC for the MV90 metering system. Industrial customers are those connected at

[45] February 23-25, 2009 interviews with a Customer Service Representative and the IT and System Engineer.

500 kVA or larger transformer capacity. Service is slightly different under the B and non-B rates, mentioned above under Finding 6-1, as follows:

- EKPC: "B" Rate customers – EKPC owns the meter and the cell phone used to transmit the data (8-9 customers in this category);
- Other customer not on "B" Rate – Shelby Energy purchases the same meter as used by EKPC (5-6 customers in this category). EKPC charges Shelby for doing the meter reading.

Industrial Meters are read at the end of the month. On the 2nd or 3rd day of the following month, EKPC sends data on a spreadsheet via email to the IT and System Engineer, who sifts through the data to identify any errors. He prints out a copy of the meter readings and highlights the kWh, KW demand and power factor numbers to be used in billing. He archives the data. He provides the marked-up spreadsheet to Customer Service Manager, who handles the billing. The Customer Service Manager enters this data manually into the SEDC billing system.

Residential and Commercial Customers

The residential and commercial customers are treated in a similar manner with respect to meter reading. Their meters are read on a regular monthly cycle by non-Shelby Energy meter readers. ITRON meter reading devices are used. Shelby Energy owns the devices, but contracts out the meter reading. The meter readers have the ability to take photographs of the meter display, and assist with queries or disputes. Photos, along with the meter reading data, are uploaded also into the billing system for later review. The meter reading device automatically indicates when a reading is unusually high or low, prompting the meter reader to take a photo of the meter.

The meter data is downloaded on a daily basis by a Customer Service and Billing representative. The data is transferred to the SEDC billing system and quality check is carried out on the data, to identify unusually high or low values.

Finding 6-2

Shelby Energy's meter reading activities are appropriate for its business functions. The outsourcing of meter reading appears to work well, and has not generated any problems.

Discussion on Finding 6-2
Based on the review of meter reading activities, and the review of customer surveys[46] and customer service statistics[47], the Auriga Team determined that meters are read and data is processed on time and with few errors.

No recommendations are necessary relative to this finding.

6.3 Billing and Payment

6.3.1 Ongoing Billing and Payment Services

Accurate billing and timely receipt of bill payment is an essential characteristic of a well functioning electric utility. Bills should include all the appropriate bill components, charged on the basis of the most recent meter readings, so that the utility can receive payment in a timely manner to manage cash-flow requirements.

Shelby Energy uses a billing system provided by SEDC.[48] The billing system takes the meter data and generates the monthly bills. The bills are printed and mailed off-site, by an SEDC partner company, Arista. Shelby Energy does provide bill stuffers on a periodic basis. These are printed in Kentucky and shipped on mass to the billing company for inclusion with the bills.

The processes used by Shelby Energy to render a bill have been documented, but don't have sufficient detail to be considered an operating procedure.[49] The processes include the following steps needed to use the SEDC software to generate the different bill components:

- Bill Detail
- Bill Message
- Billing Calculation and Pricing
- Budget Billing Report
- Consumer Read Labels
- Cut Off Exempt
- Delinquents
- Final Bill Credits
- Monthly Fuel Cost Factor
- Monthly Surcharge Percentage.

Many of these processes were updated in January 2009.

[46] Document G-6 in Response to Data Request.
[47] Document G-5 in Response to Data Request.
[48] February 23-25, 2009 interviews with Customer Service Representatives and written documentation provided to the Auriga Team on current billing processes.
[49] Document 4-6 in Response to Data Request.

The fuel cost adjustment clause base in the energy rates charged to Members (customers) are updated periodically in two ways:

- Monthly fuel cost adjustment: each month EKPC, as authorized by KPSC, provides Shelby Energy with an updated fuel cost adjustment factor that is included in customer bills. The fuel cost adjustment (FCA) factor is a $/kWh charge that is used to calculate a monthly fuel cost adjustment for inclusion as a separate line item on customer bills. There is a two-month lag on including the FCA on the bills, e.g., the January bill includes the FCA for November. The FCA factor is multiplied by the current month's consumption to calculate the value on the bill. FCA is based on the cost of kWh purchased to KWh sold plus a 12 month rolling average of line losses. The FCA factor, included in the bills is calculated by the Customer Services Manager on a spreadsheet. This goes to the Customer Service and Billing representative to check the values. Each month, the FCA factor is updated between the 15th and 25th days of the month. The FCA factor is also filed with the KPSC.
- EKPC fuel adjustment clause fuel cost roll in: The base rates from EKPC are updated every two years and EKPC provides the new rate value to each member distribution cooperative, including Shelby Energy. The two year rate adjustment from EKPC was the bill component that was not updated in September 2007 that led to the billing problems at that time. (See the following finding.)

Shelby Energy offers a range of payment options: mail in, in person at Shelby Energy offices (at both Shelbyville and Bedford), online payment, and via bank draft. Service is usually disconnected 30 days after non-payment. After 60 days, Shelby Energy issues letters for collections and turns over the account information to Online Utilities (an outside service that is part of SEDC) for collection. At this time, the collections amounts are written off. Shelby Energy recovers the write-off from the customer if it reconnects the account. If Online Utilities succeeds in recovering a written off amount, a proportion of the recovered amount is credited to Shelby Energy revenue.

Finding 6-3

The existing billing and payment services are appropriate for Shelby Energy business functions. Appropriate checklists exist and are used for customer service activities. However, Shelby Energy would benefit from developing written procedures for its key activities in this area -- in particular the process for updating the EKPC portion of rates for the biennial adjustment of the fuel cost roll-in.

Discussion on Finding 6-3

The Auriga Team determined that the monthly billing process functions well, and with the exception of the billing issue of August 2007, appears to be error free. This is supported by customer surveys and customer service statistics.[50]

[50] Documents No. G-5 and G-6 in Response to Data Request.

Shelby Energy's Customer Services, however, would benefit from a more detailed documentation of its billing and payment processes. The above-listed processes (Bill Detail, Bill Message, Billing Calculation and Pricing, Budget Billing Report, Consumer Read Labels, Cut Off Exempt, Delinquents, Final Bill Credits, Monthly Fuel Cost Factor, and Monthly Surcharge Percentage) do not have sufficient detail to be considered operating procedures. That is, they do not include a detailed task description, do not identify which employee is responsible for each task, and do not provide the required timing for completion of each task.

Since Shelby Energy has not updated its base rates since 1983, there is not a current procedure for implementing a change in base rates into customer bills. If Shelby Energy does pursue a tariff filing with KPSC in 2009 as planned, it will need to develop a procedure for updating the new rates, ensuring a smooth transition and avoiding a repetition of the rate update issue of 2007.

Recommendation Based on Finding 6-3

Shelby Energy should implement a detailed written procedure (or procedures) documenting the monthly billing and payment processes, including the following:

- **Procedure owner**
- **Date of adoption/revision of the procedure**
- **Signature of CEO**
- **Table of Action Steps that include the following:**

Responsible Employee	Action Steps	Timing/Dates for Completion

6.3.2 Billing Issue in 2007

In late 2007, Shelby Energy discovered internally that it had failed to fully include all applicable charges from EKPC in rates for its customers over a four month period. After consultation with KPSC staff, Shelby Energy informed its customers about its mistake and its planned correction: adjustments to recover the under collected amount over a period equivalent to the period of under collection. Shelby Energy received a minimal number of complaints from its customers. A single formal complaint was lodged[51] on July 7, 2008 with the KPSC, which was addressed by the KPSC. However, the fact that questions remained about how the billing mistake occurred led to inclusion of this issue in the scope of this Management and Operations Audit.

[51] Case No. 2008-00277.

Based on information collected and reviewed by the Auriga Team[52] in August 2007 Shelby Energy received two rate updates from EKPC: (1) a monthly change to base rates resulting from an increase to EKPC wholesale rates and (2) the biennual EKPC rate change resulting from the fuel cost roll-in. The EKPC monthly rate increase was implemented correctly but the biennial EKPC rate-change components was not entered into the billing system. This omission generated lower revenues than forecast. The total amount of the shortfall over several months was approximately $900,000. The problem was identified on December 18, 2007, following four months of low energy-use billing. Having identified the problem, Shelby Energy developed the bills for December 2007 correctly.

Following approval from KPSC staff, Shelby Energy collected the under-billed revenue from members in February 2008 through May 2008 (the same timeframe as the under billing). The shortfall was calculated separately for each customer based on the difference between what was actually billed for the energy component in each month, and what should have been billed. The bill for each month of the four month collection period included the shortfall for the corresponding month in which the error occurred. For example, the August shortfall was included on the February bill, the September shortfall on the March bill, etc.

Finding 6-4

The billing problems regarding the failure to include all East Kentucky Power Cooperative rate elements in Shelby Energy customer rates that occurred in late 2007 were a one-off event. Action in the form of a revised process was taken by Management in 2008 to avoid recurrence of that or similar error. However, the revised process is not properly documented in the form of a written procedure. Shelby Energy's Board of Directors was sufficiently well informed of the issues that arose in late 2007 and of their resolution.

Discussion on Finding 6-4

Based on a review of the customer complaints received and documentation provided by Shelby Energy, the Auriga Team determined that the billing problem of late 2007 was a once off event. The billing error was reported to the Board, and reviewed periodically during the recovery period. The Auriga Team confirmed that the Board was kept appraised of the situation, and provided the requisite support to the CEO to resolve the situation.[53]

Following the billing adjustment problems identified in December 2007, Shelby Energy implemented a new process to ensure that the problem did not reoccur. The process involves three staff members (the Office Services Manager, the Customer Service and

[52] February 23, 2009 interview and follow up documentation. Also Document No. 4-5 in Response to Data Request.
[53] February 23-25, 2009 interviews with Directors. Board meeting minutes of December 27, 2007 and April 24, 2008.

Billing Representative, and the Executive and Administrative Assistant) verifying that the rates have been updated correctly. While the process has been implemented,[54] the process has not been documented in a written procedure. The lack of a written procedure is problematic as it relies on the current staff implementing the process based on their understanding of the appropriate process.

Recommendation Based on Finding 6-4

Shelby Energy should develop and implement a detailed written procedure, using the format as described in the Recommendation Based on Finding 6-3, to document the process for implementation of fuel adjustment and EKPC rate changes.

6.4 Customer Service

Customer service refers to the multitude of interactions between the utility and its customers, or members (for cooperatives). It includes addressing customer inquiries, implementing new (physical) service connections, invoicing, addressing billing enquiries, and processing customer payments. A customer-focused, systematic, and responsive customer service function is essential for all utilities.

Shelby Energy's Customer Services department comprises eight employees: an Office Services Manager, a Supervisor, General Accounting, two Customer Service and Billing Representatives, and four Customer Service Representatives. The Customer Service and Billing Representative position serves as a lead and backup to the Office Services Manager. The Customer Service and Billing Representatives are responsible for:

- Downloading meter readings and verifying accuracy
- Preparing bills
- Taking payment from customers
- Acting as the interface with customers for new connections
- Settlement of Members' capital credits
- Assisting Operations during significant power outages.

Two of these areas of responsibility, metering and billing, are addressed in separate subsections above. This subsection addresses the other areas.

Capital credit settlement entails calculation of capital credit available to the survivor of a Member account. The Customer Service and Billing Representative uses a spreadsheet to calculate the capital credit due to the surviving Member. The Customer Service and Billing Representative submits the information to the Office Services Manager for review and approval and submits a check request to the Supervisor, General Accounting. The Customer Service and Billing Representative prepares a report on capital credits for inclusion in Board meeting materials. Once the Board approves the capital credit, the

[54] February 23-25, 2009 interviews of the CEO and Office Services Manager.

Customer Service and Billing Representative enters the data into the system and mails the check.

During regular business hours, Office Services department employees assist with taking outage calls and support the Operations department in its Dispatch function. All office employees assist with outages as needed in various ways -- such as taking telephone calls, working with Dispatch, and contacting the media, emergency services agencies or other community representatives.

During after-hours emergencies, Customer Service and Billing Representatives and Customer Service Representatives provide assistance to the on-call outage team by monitoring outage calls received from the Cooperative Response Center (CRC). When the third duty crew is needed based on calls received from the CRC, Shelby Energy employees take over managing outages. A three-member team is formed, (First Supervisor, Second Supervisor, and Third Team Member). Operating Procedure No. 15 (adopted Feb 1, 2009, during the recovery from the ice-storm), defines the roles of the three team members in carrying out dispatch and other duties during major outages. The Customer Service and Billing Representative or a Customer Service Representative normally serves as Third Team Member and provides data to the other two team members using customer call-in information from the CRCLink software.

Finding 6-5

The customer service function works well at Shelby Energy. Appropriate checklists exist and are used for customer service activities. However, Shelby Energy would benefit from developing written procedures for key activities in this area.

Discussion on Finding 6-5

The Auriga Team assessed the customer service function[55] and concluded that it works well at Shelby Energy. Customer satisfaction surveys also indicate a consistently high level of satisfaction with Shelby Energy's services. Over the period 2001 through 2007, the percentage of surveyed customers who said they were "satisfied" or "very satisfied" with Shelby Energy's annual scores ranging from 86% to 91%. However, recent customer satisfaction has dropped steadily -- from an annual average of 87% in 2007 to 81% by the fourth quarter of 2008.[56]

While each specific customer service activity (meter reading downloads, customer bill preparation, capital credits, new customer connections) is assigned to a Customer Service Representative as his/her primary responsibility, Shelby Energy is in the process of cross training the customer service staff in a range of functions. Auriga learned that there is no written plan regarding the duration of each assignment, or what happens at the end of the cross training. This issue is discussed in more detail in Chapter 10.

[55] February 23-25, 2009 interviews with the Office Services Manager, Supervisor, General Accounting, and Customer Service Representatives. Also, review of Document 4-6.
[56] Document No. G-6 in Response to Data Request.

Customer Services has documented the following processes related to handling customer bill payments:[57]

- Bank drafts
- Night drop and mail payments
- Transferring payments
- Uncollectible payments
- Vouchers
- Write-offs
- Processes related to calculating trial balances, and clearing bill history.

However, the documented processes for handling customer bill payments, and the other processes in customer services, do not contain the level of detail and clarity of employee accountability expected of operating procedures.

Recommendation Based on Funding 6-5

Prepare written procedures, using the format as described in the Recommendation Based on Finding 6-3, for key customer service tasks.

[57] Copies were provided to the consultants.

7 ENGINEERING

Engineering functions in a utility environment are important for the long-term integrity and well-functioning of the distribution assets. Electric utility distribution has the advantage of fundamental technology that has been largely developed and refined over many decades. However, recent advances have been made in implementing sophisticated control systems to improve on the efficiency of maintenance and operations of the assets once installed. A rural electric cooperative that has a strong engineering function can be expected to adhere strongly to standards and specifications developed by the Rural Utility Services (RUS) and, where applicable, standard utility practices. A strong engineering function can also be expected to be implementing control systems that provide for improved reliability and more efficient maintenance and operations.

In Shelby Energy, engineering tasks are substantially and appropriately integrated with tasks in maintenance and construction. Engineering functions are substantially vested in the skills and experience of the Vice President/Manager of Engineering as well as the IT and System Engineer, who currently reports to the CEO (refer to the organization chart in Chapter 3). A single staking technician reports to the Vice President/Manager, Engineering. In addition, substantial reliance is made upon the services of various engineering consultants for distribution planning, periodic work order inspections, system design, staking, system inspections and other tasks.

7.1 System Design and Material Specification

Finding 7-1

Shelby Energy's system design and material specification practices are in line with RUS standards and specifications and with standard industry practices.

Discussion on Finding 7-1

Shelby Energy utilizes the RUS Specifications & Drawings: REA Bulletin 50-3, Standard D 804 for 12.5/7.2 KV Line Construction and REA Bulletin 50-5, D-803 Specifications & Drawings for 24.9/14 KV Line Construction.[58] The latest revision is dated 05/08/83. For procurement, Shelby Energy uses the RUS approved procurement list, which is periodically updated and provided to all cooperatives.

System Control and Data Acquisition (SCADA) protection applies only to the substations and is designed, upgraded and maintained by EKPC and Owen Electric Cooperative. Shelby Energy partners with Owen Electric Cooperative in monitoring its SCADA program.

No recommendation is necessary based on this finding.

[58] February 23-25, 2009 interview, Vice President/Manager, Engineering.

7.2 Distribution Planning

Finding 7-2

Shelby Energy's distribution planning practices are in line with standard industry practices.

Discussion on Finding 7-2

Shelby Energy outsources its distribution planning functions to Distribution System Solutions (DSS) and receives the services of Jim Bridges, PE.[59] DSS develops a long range distribution plan as well as a construction work plan:

The Long Range Distribution Plan extends 20 years and includes the following:

- Load projections, consistent with EKPC's projections.
- New or upgrades in substation capacity
- Miles of line extension
- System losses.

The Construction Work Plan is generated from the above long range plan and extends 4 to 5 years and includes both projected material and labor requirements.

No recommendation is necessary based on this finding.

7.3 Materials Procurement

Finding 7-3

Shelby Energy's procurement of materials for maintenance and construction is in line with standard industry practices.

Discussion on Finding 7-3

Shelby Energy's Engineering Department executes Requests for Quotes and adheres to the RUS approved list of materials when executing materials purchases in order to maintain REA Certification.[60]

RUS has a field representative for each 20 to 30 cooperatives, who coordinates feedback to RUS engineers on issues that arise with materials purchased pursuant to the RUS approved list of materials and answers questions cooperatives have regarding the approved list.

Materials and equipment for larger projects are normally shipped to the job trailer maintained by the vendor to minimize delays and enhance handling efficiencies. Poles are also shipped to a centralized location. Materials for smaller projects are shipped to the Shelby Energy warehouse and assembled by work order for both contractor and Shelby

[59] Ibid.
[60] Ibid.

Energy projects. In addition, an inventory of materials and equipment required for routine, day-to-day maintenance tasks is maintained in the warehouse.

No recommendation is necessary based on this finding.

7.4 Project Work Orders

Finding 7-4

Shelby Energy's project work order process is in line with standard industry practices.

Discussion on Finding 7-4

The following documents are prepared and attached to work orders:[61]

- Engineering drawings are prepared by the Electric Service Company, a consulting engineering firm, on larger projects and by Shelby Energy's staking technician on smaller projects
- Materials ticket
- Conductor sag charts
- Easements, if applicable
- Joint pole use agreements, if applicable.

These practices are consistent with standard utility practices. No recommendation is necessary based on this finding.

7.5 Engineering Staffing

Finding 7-5

Shelby Energy's staffing level for engineering functions is vulnerable to the potential departure of key individuals.

Discussion on Finding 7-5

The Shelby Energy current organization chart, as depicted in Chapter 3, consists of the VP/Manager, Engineering and a single staking technician. In addition, the IT and Systems Engineer, although reporting directly to the CEO, said that he coordinates closely with the VP/Manager, Engineering.[62] Shelby Energy relies substantially on the services of DSS for its distribution planning.

Shelby Energy outsources its engineering and information technology work to various firms along with Owen Electric Cooperative to receive necessary services. Arrangements are available to meet increased engineering and information technology requirements in the future as needed. The firms under contract currently are DSS, Electric Service Company, Patterson & Dewar Engineers, and Neville Technologies.

[61] Ibid.
[62] February 23-25, 2009 interviews.

Based on the findings above, it is apparent that the engineering functions in Shelby Energy are being performed satisfactorily. However, the Auriga Team is concerned that Shelby Energy has its engineering responsibilities heavily vested in only three employees, including a Staking Technician. The VP/Manager, Engineering is among the Shelby Energy employees eligible for retirement.[63] The services of its consultants, however well they are performed, cannot adequately fill the gap caused by any departure of competent engineering and IT system personnel.

A recommendation arising from Finding 7-5 is contained in Chapter 9 in the context of succession planning. Succession planning for Engineering Department positions should be considered in the context of the recommendation contained in Chapter 3 on a revised organization structure.

7.6 Internal Coordination and Integration

Finding 7-6

Integration of engineering work with construction, maintenance and operations functions, headed by the Manager, Operations, is excellent.

Discussion on Finding 7-6

Engineering personnel Operations personnel both report that their day-to-day activities are very well coordinated and integrated.[64] The Auriga Team observed, in its on-site interviews, a high degree of cooperation between personnel in these two departments.

No recommendation is necessary based on this finding.

[63] February 23-25, 2009 interviews of the CEO and the Manager, Human Resources.
[64] February 23-25, 2009 interviews of the VP/Manager Engineering and the Manager, Operations.

8 DISTRIBUTION CONSTRUCTION, MAINTENANCE AND OPERATIONS

Shelby Energy Corporation is organized such that it conducts its electric distribution construction, maintenance, and operations by one department, managed by the Manager, Operations, who reports to the CEO. Shelby Energy's construction contract with Elliott Construction is in place to cover relatively large field projects such as primary extensions or circuit upgrades. Elliott Construction (which replaced Dobson Construction in 2007, as discussed in Chapter 3) conducts its work under the direction of the Manager, Operations. In general, larger construction assignments go to Elliott as stand-alone projects and do not involve mixed Elliot-Shelby Energy crews.

Shelby Energy has one five-person crew that performs smaller primary extensions and smaller maintenance projects. It also has two small bucket crews, each made up of two Linemen/Service Technicians or one Lineman/Service Technician and one Apprentice Lineman, which perform lighter work such as secondary/service drops, outside lighting installation or repair, and response to customer meter queries and customer complaints involving service interruption. Shelby Energy also has three light service trucks used by field crew when bucket-truck work is not called for.

Power purchasing, sometimes considered part of operations in larger utilities, is handled at the CEO level in Shelby Energy, with input on contractual issues from other departments and consultants as needed. Shelby Energy purchases all of its power under a long-term contract with East Kentucky Power Corporation (EKPC). EKPC also owns, maintains, and operates the transmission-voltage substations at which power is delivered to Shelby Energy. Shelby Energy takes control of power at the distribution-voltage buses in each substation.

Owen Electric Cooperative hosts the distribution System Control and Data Acquisition (SCADA) master station from which Shelby Energy receives feeds at a local terminal. This terminal allows Shelby Energy to monitor power flows and voltage on its distribution feeders. In addition, Shelby Energy can conduct switching from this local terminal.

Shelby Energy's IT and System Engineer, although currently reporting to the CEO, provides SCADA support services to the operations department and also assists in terms of meter calibration/testing for commercial and some industrial customer meters.

The findings in this section are focused on Shelby Energy's construction, maintenance and operations practices in general. Chapter 9 addresses safety practices separately.

8.1 Construction Specifications

Finding 8-1

Shelby Energy's construction specifications are consistent with RUS and standard industry practices.

Discussion on Finding 8-1

Shelby Energy utilizes the RUS Specifications & Drawings: REA Bulletin 50-3, Standard D 804 for 12.5/7.2 KV Line Construction and REA Bulletin 50-5, D-803 Specifications & Drawings for 24.9/14 KV Line Construction.[65] The latest revision is dated 05/08/83.

These standards are appropriate for Shelby Energy's construction specifications. No recommendation is necessary based on this finding.

8.2 Work Management and Crew Scheduling

Finding 8-2

Field inspections for work progress, efficiency and safety are excellent

Discussion on Finding 8-2

The Manager, Operations described his department's procedure for job scheduling and execution (whether construction/maintenance by Shelby Energy or construction by Elliott forces).[66] The procedure is as follows.

The Manager, Operations:

- Reviews beforehand the engineering drawing, permits, and special instructions, as appropriate, with the crew leader
- Conducts periodic field visits of both Shelby Energy and Elliott Construction crews for progress, efficiency and safety
- Selects and negotiates a location for the job material trailer
- Receives from Engineering the work order with attachments, which were itemized in Section 7.4.
- Schedules One-Call Dig to physically identify all underground facilities, if needed, at least 48 hours prior to work
- Identifies other utility facilities and access including locked gates
- Carries the engineering material ticket to the warehouseman the day prior to work for material collection and accounting purposes
- Ensures that a vehicle & equipment inspection is conducted and material is loaded
- Holds a tailgate safety meeting with the crew prior to work
- On completion of work, routes the work order to accounting for processing.

[65] February 23-25, 2009 interview of the Manager, Operations.
[66] Ibid.

On all large projects and a sampling of the smaller projects, Distribution System Solutions (DSS) conducts field inspections following completion of work.

These practices are within industry norms. No recommendation is necessary based on this finding.

8.3 Overhead Distribution System Maintenance

Finding 8-3

Shelby Energy's overhead distribution practices are satisfactory.

Discussion on Finding 8-3

Shelby Energy conducts the following routine maintenance tasks[67]:

- Right-of Way Maintenance -- spray one year and cut the next year on a five year system cycle[68]
- Air/Ground Patrol -- ¼ system air & ¼ system ground/walk patrol on a two year system cycle
- Air break switches – annual inspection of all switches
- Ground line pole treatment -- 10 year cycle
- Pole top reclosers – annual inspection of all reclosers
- Pole change-out based on above inspections and more often if necessary

These practices are within industry norms. No recommendation is necessary based on this finding.

8.4 Underground Distribution System Maintenance

Finding 8-4

Shelby Energy's underground distribution system maintenance practices are satisfactory.

Discussion on Finding 8-4

Shelby Energy conducts the following routine maintenance tasks:[69]

- Transformers -- outside visual inspection and open each transformer for inside visual inspection (1/3 of the total number annually) on a 3 year cycle

These practices are within industry norms. No recommendation is necessary based on this finding.

[67] Ibid.
[68] Shelby Energy's 2007 PSC Distribution Reliability Report (see KPSC website, Case No. 2006-00494) states that Shelby Energy uses the RUS ROW Clearing Guide – M1.30G – dated December 1998. The same report contains a copy of Shelby Energy's vegetation management plan.
[69] February 23-25, 2009 interview of the Manager, Operations.

8.5 Meter Maintenance

Finding 8-5

Shelby Energy's meter maintenance practices are satisfactory.

Discussion on Finding 8-5

Shelby Energy conducts the following routine maintenance tasks:[70]

- Meter inspection -- individually as connected, disconnected, reconnected, transferred, or in response to queries/complaints.

These practices are within industry norms. No recommendation is necessary based on this finding.

8.6 Coordination of Power Delivery

Finding 8-6

Administration of the power delivery functions, including day-to-day coordination with EKPC, both via SCADA monitoring and voice/email communication, is satisfactory.

Discussion on Finding 8-6

Shelby Energy is coordinating satisfactorily on a day to day basis with EKPC, its power supplier.[71] No instances were identified either in Board minutes or other documents received by the Auriga Team that any extraordinary issues have arisen in recent years in coordinating power delivery from EKPC.

8.7 Distribution Reliability

Finding 8-7

Shelby Energy's distribution reliability, as measured using the standard industry indices SAIFI, SAIDI and CAIDI, is within the range of industry norms. Its methodology for identifying each year the top 10 feeders requiring maintenance to improve reliability is in line with industry best practices.

Discussion on Finding 8-7

Shelby Energy's distribution reliability,[72] as measured using the standard industry indices System Average Interruption Duration Index (SAIDI), System Average Interruption

[70] Ibid.
[71] February 23-25, 2009 interviews with the Manager, Operations and the IT and System Engineer.
[72] Shelby Energy's 2007 PSC Distribution Reliability Report. Doc G-12 in response to Data Requests.

Frequency Index (SAIFI) and Customer Average Interruption Duration Index (CAIDI)[73], is as follows:

Year	SAIDI (hours)	SAIFI (number)	CAIDI (hours)
2000	3.68	1.69	2.18
2001	2.32	1.27	1.83
2002	1.61	0.85	1.89
2003	1.30	0.76	1.71
2004	1.10	0.80	1.38
2005	1.09	0.53	2.08
2006	1.84	0.82	2.23
2007	0.91	0.67	1.35

Most utilities exclude extraordinary outage events over which they have little or no control, such as major storms, when making these calculations. Shelby Energy does likewise – in 2007, for example, it excluded four EKPC transmission substation outages.

Shelby's results are within the range of industry norms.

Shelby Energy describes[74] an appropriate and practical process for identifying, each year, the top 10 feeders requiring reliability improvement and addressing the vulnerable elements of those feeders. This process is in line with industry best practices.

No recommendation is necessary based on this finding.

[73] SAIDI is measured in units of time, often minutes or hours. It is usually measured over the course of a year, and according to IEEE Standard 1366-1998 the median value for North American utilities is approximately 1.50 hours.

SAIFI is measured in units of interruptions per customer. It is usually measured over the course of a year, and according to IEEE Standard 1366-1998 the median value for North American utilities is approximately 1.10 interruptions per customer.

CAIDI is measured in units of time, often minutes or hours. It is usually measured over the course of a year, and according to IEEE Standard 1366-1998 the median value for North American utilities is approximately 1.36 hours.

[74] Shelby Energy's 2007 PSC Distribution Reliability Report. Doc G-12 in response to Data Requests.

9 SAFETY PRACTICES

The Management Audit's Scope of Work drew special attention to Shelby Energy's safety practices. The Auriga Team, in light of the recent deaths of two Dobson Construction employees while engaged working on site for Shelby Energy – one in 2006 and the other in 2007, devoted special attention to the attitude and practices of the Board and Management related to employee and contractor safety. Since, in Auriga's experience, sustainable and effective safety practices must extend throughout the organization, all safety-related findings and recommendations are consolidated into this section.

The Auriga Team's analysis, findings and recommendations regarding safety practices are based on interviews of Board members and employees, follow-up communications with employees, a review of safety related policies and other documents, and on-site inspections. In general, Auriga was looking for evidence that (1) proper safety practices are required by the Board and senior Management and that the culture reflects a commitment to continuous improvement in safety practices, (2) safety-related roles and responsibilities are clearly described in policies and procedures, (3) employees are complying with the safety-related policies and procedures, and (4) the safety-related commitments made by Shelby Energy in its September 2008 settlement with the KPSC are being implemented.

Auriga's interviews of a selection of field crew employees are summarized in an Appendix to this report.

The Settlement Agreement entered into between Shelby Energy and the Staff of the KPSC on September 15, as incorporated in the KPSC Order dated September 29, 2008 in Case No. 2008-00069 contained a number of safety related commitments by Shelby Energy. The Auriga Team reviewed the status of Shelby Energy's accomplishments against those commitments and summarizes the status in a finding in this chapter.

Finding 9-1

There is an excellent commitment to the Shelby Energy Safety Program from the Board of Directors and from the CEO. However, there are opportunities to inform the Board more fully and regularly of Management's safety-related practices and there is no regular attention given by the Board to the ongoing safety practices of Shelby Energy's primary contractor, currently Elliott Construction.

Discussion on Finding 9-1

The two interviewed Board Directors stated that the Board has never failed to approve expenditure of funds identified for safety purposes.[75]

[75] February 23-25, 2009 interviews of Directors.

Minutes of Board meetings held over the past four years contain a regular report on employee accidents and work-related injuries. No regular reports are made to the Board, of construction contractor accidents and work-related injuries.

Shelby Energy's Mission Statement, as observed on February 23, 2009 printed on large posters hanging on the walls of the Shelby Energy Headquarters, indicates a high priority on safety:

> "Shelby Energy Cooperative (SEC) shall make safety the top priority in providing reliable and competitively priced quality energy services to members and customers that will result in community development with lasting value".

The Mission Statement includes the following objectives:

a. Safety & Reliability
b. Quality Service
c. Competitive Rates
d. Community Development
e. Lasting Value

In June 2008, the CEO appointed a Safety and Loss Control Coordinator (SLCC), which meets a requirement contained in the subsequent (September 15, 2008) settlement with the KPSC in Case No. 2008-00069. The CEO and Management of Shelby Energy demonstrate a strong focus on employee safety[76]:

- The CEO leads a review of Shelby Energy's safety policies, which are contained in Policy No. 908, at least once a year. Currently the practice for annual updates to the safety policies is not written as a policy or procedure, but the CEO agreed that it should be. [This action is carried over to Finding 9-2.]
- In general, safety policies issued by the American Public Power Association (APPA) are adopted by Shelby Energy. However, Policy No. 908 includes safety policies that are specific to Shelby Energy's operations. In the case of overlap or conflict between the APPA and Policy 908 policies, the more stringent between the two versions applies.
- Shelby Energy logs lost-time accidents and tracks the number of labor-hours since the last lost-time accident. Currently that number is in the range 150,000-160,000 hours.
- Shelby Energy received an NRECA award in 2008 for its dedication to employee and public safety and its commitment to regulatory compliance and loss control practices.
- Employee annual performance bonuses can be reduced based on accidents that occurred.
- Shelby Energy logs safety-related incidents as reported by its employees.

[76] February 23-25, 2009 interviews of the CEO and the Safety and Loss Control Coordinator.

- An employee suggestion box is available in the break room for suggestions, complaints or information for Management's attention. This provides an opportunity for anonymous notes.
- The SLCC tracks code and regulation changes (OSHA, etc.), coordinates safety training, and addresses in-office safety practices. He said Shelby Energy linemen attend yearly training events with other cooperatives.
- Attendances at regular Monday morning safety meetings are mandatory for field crew employees.
- Apprentice training makes use of the Tennessee Valley Authority Public Power Apprenticeship program.
- The SLCC is enrolled in program that leads to "certified loss control professional" certification. This is a 4-week program and he was scheduled to attend the 2nd week on 03/09/09 and intends to complete the program in 2010.

Shelby Management is still in the process of identifying appropriate rewards, including visibility to the Board, for employees who practice excellent workplace safety. Rewards are as important as enforcement and discipline as tools to improve workplace safety.

Recommendation Based on Finding 9-1

Regular monthly Management reporting to the Board on employee accidents and injuries should be broadened to include:

(1) Shelby Energy safety program accomplishments including training

(2) Updates to statistical information such as the number of hours worked without a lost-time accident

(3) Accidents and injuries to Shelby Energy contractors while working on Shelby Energy assignments

(4) Improvements to safety practices and other pertinent safety information encompassing Shelby Energy employees, Shelby Energy contractor employees, and the public

(5) Recognition to Shelby Energy employees for excellent safety practices.

Finding 9-2

In regard to Policy No. 908, Safety and Loss Control Practices, the following findings are made:

- Policy No. 908 clearly defines the various safety rules, regulations and standards that have been previously adopted or are, by reference, adopted by the Board as part of its adoption of Policy No. 908.
- It appropriately provides direction to the CEO to establish necessary safety rules, regulations and standards to comply with those policies adopted by the Board. (First paragraph of Section II, page 1).

- It appropriately assigns responsibility to the CEO[77] for "carrying out this policy to the fullest extent." (Section IV, page 16.)
- Responsibility of Shelby Energy employees for compliance with this policy is also clearly defined throughout the entire document. Employee responsibility for safe work practices is also defined in Section 1, paragraph 102, page 24 of the APPA Safety Manual, a part of Shelby Energy's safety program by adoption.
- Responsibility for the enforcement of employee compliance is not appropriately defined.
- A Disciplinary Procedure is defined (Section III, pages 15 &16). However, the Disciplinary Procedure portion of Section III does not clearly define discipline as being a department manager's responsibility.
- Organization and clarity of this policy overall, especially in reference to other Shelby Energy safety policies, needs improvement.
- The practice of updating Policy No. 908 annually is not written into Shelby Energy policies and/or procedures.
- Field crews do not always have with them, in their vehicles and at their desks, a copy of the APPA Safety Manual and Shelby Energy safety policies.

Discussion on Finding 9-2

The Auriga Team drew the finding primarily from a review of Policy No. 908 – Safety and Loss Control Practices, revised October 20, 2008, and other Shelby Energy safety policies such as those covered in Operating Procedure No. 1 – "Working On or Near Exposed Energized Lines" and Operating Procedure No. 5-1 – "Safety for All." It is apparent that Policy No. 908 is the focus of the Shelby Energy safety program. It addresses the key elements of an industry standard safety program.

In regard to the finding on responsibility for enforcement and discipline, standard industry practice is to define it clearly as the employee's supervisor/manager's responsibility. The Safety Coordinator's role is best defined to assist the Manager, Operations with enforcement and is covered in Section IV, paragraph A as follows: "The Safety and Loss Control Coordinator shall be responsible for ensuring compliance..."

Several Shelby Energy field crew employees said they had copies of the APPA Safety Manual either in their vehicles or on their desks.[78] However, Auriga noted that field crew employees do not have with them readily in these locations copies of Shelby Energy's Safety Policies. A signed acknowledgement of receipt of the safety policies and procedures is on file with Shelby Energy for each employee. Auriga observes that it would be sensible for Shelby Energy Management to require field crews to have with

[77] The responsibility for the enforcement of employee compliance to the adopted and established safety rules, procedures and regulations is the sole responsibility of the employer in accordance with Public Law 19-596, December 29, 1970, "Occupational Safety and Health Act of 1970".
[78] Employee Interviews, Appendix, Question 13.

them at all times, at their desks and in their vehicles, a copy of the APPA Safety Manual and all applicable Shelby Energy safety policies.

Recommendations Based on Finding 9-2

1. **Change the title of Policy No. 908 to emphasize Shelby Energy's commitment to employee safety rather than loss control – consider "Shelby Energy Safety Program," thus avoiding the impression made that that the program is focused on property losses rather than personal injury.**
2. **Address the topic of property losses in other Shelby Energy policy documents.**
3. **In Policy No. 908, insert a new Section I: the first new paragraph should be the Shelby Energy's Commitment Statement – for example, "Shelby Energy Cooperative shall make safety the top priority in providing reliable and competitively priced quality energy services to members and customers that will result in community development with lasting value."**
4. **Insert a new Section II. The first new paragraph should address Responsibility; use the first paragraph of the existing Section II (the Board of Directors statement).**
5. **The second paragraph in the new Section II should be a CEO statement on Enforcement. Consider revising paragraph IV.B, page 16, as follows: "The CEO is responsible for the overall compliance and enforcement of these safety rules, procedures and work practices in all areas and functions in which Shelby Energy employees and contractors work. The Manager of Operations is responsible for the enforcement of these safety rules, procedures and work practices in all construction, operation and maintenance functions. The Safety Coordinator is responsible for coordinating the Shelby Energy safety program, including recommendations on safety policy and procedure refinement, communication of industry safe practices, and development/coordination of safety training for employees."**
6. **The third paragraph in the new Section II should be a revision of the existing Section II, 2nd paragraph, with suggested language as follows: "Shelby Energy Employees shall comply with these safety rules, procedures and work practices while performing their assigned work."**
7. **Section III should encompass the "Content" portion of the existing Section II.**
8. **The new Section IV should capture policy language from the existing Section III, page 15. Add a paragraph in the new Section IV under the disciplinary portion to clearly define discipline as being the responsibility of the department manager.**
9. **Add a Table of Contents for this document.**
10. **Safety Policy No 908 should be referenced in all other Shelby Energy safety documents and should be adopted as the primary Shelby Energy safety document. Other safety policies should be numbered 908-A, 908-B, etc., to reinforce the understanding that they build upon the primary safety policy document.**

11. **Compile all of the safety policy documents into a notebook, communicate these changes to all employees, and assure they are readily available for employee reference and review.**
12. **Incorporate in an appropriate policy, or in Policy No. 908 itself, the requirement that this policy and other referenced safety policies, be reviewed annually and updated if necessary.**
13. **Field crews should always have with them, in their vehicles and at their desks, a copy of the APPA Safety Manual and Shelby Energy safety policies.**

Finding 9-3

Findings relative to safety meetings and job briefings are as follows:

- Shelby Energy's employee safety meetings are valuable and well received. However, the log showing meeting dates and names of employees attending weekly safety meetings has insufficient detail on topics covered to allow Management to have a complete record of topics covered over time.
- Safety meetings are consistent with Policy No. 908 Section II, paragraph 15, page 8.
- Job briefings are consistent with Policy No 908 Section II, paragraph 1, page 2.

Discussion on Finding 9-3

The Auriga Team reviewed information on the following safety practices,[79] which generally support the finding that crew safety practices and the safety meetings are effective. Safety practices include the following:

- Daily job briefings or briefings prior to job change during the day - recognition, awareness and control of job hazards prior to work.
- Daily visual equipment inspections - a walk around conducting visual inspection looking for possible defects.
- Weekly Safety Meetings – usually conducted by Safety and Loss Control Coordinator or Operations Manager, lasting ½ hour to 1½ hours. This frequency of meeting exceeds standard industry practices but is highly desirable for an organization striving to attain excellence in safety practices.
- Monthly Equipment Inspection - hands-on inspections of tools, personal protective equipment, electrical protective equipment.
- Monthly Safety Meetings - conducted by Owen Electric Co-operative's Safety Coordinator, a representative of the Kentucky Association of Electric Cooperatives (KAEC), or Distribution System Solutions.

[79] February 23-25 interviews of the Safety and Loss Control Coordinator and other field crew employees. Review of the logs of the weekly safety meetings from 2006-2008.

- Annual Safety Training - usually conducted by Distribution System Solutions on such topics as substation restoration, switching and National Electrical Safety Code (NESC) topics.

Job briefings, weekly safety meetings and monthly equipment inspections are regarded as beneficial.[80]

Safety meeting reports, especially prior to 2008, contained highly generalized topic references, such as "APPA Safety Manual." With such minimal description, the content of safety meetings is not always clear and it is difficult for Management to review training topics over a long period to assess appropriate coverage and plan effectively for future topics. Important topics for frequent review relate to working around energized conductors, clearances and grounding.

Shelby Energy has made great strides in improving its safety program over the past year. The current focus on safety, if sustained, indicates that the following emerging outcomes *will be established over the long term* in Shelby Energy:

- Employee participation and involvement is encouraged whenever possible
- Content of material covered in safety training is job related.
- Employee safety concerns are addressed promptly.
- All safety efforts are consistent.
- Key portions of the APPA Safety Manual related to working around energized conductors, grounding, etc., are periodically and thoroughly reviewed.
- Storm Emergency Restoration Procedures are reviewed each year prior to the storm season.

Recommendation Based on Finding 9-3

Logs of safety meetings should be specific as to the training material covered.

Finding 9-4

Findings relative to the Safety Committee are as follows:

- The role of the committee is consistent with Policy No 908, Section II, paragraph 14 B, 8.
- Shelby Energy's Safety Committee membership is over weighted in office personnel and underweighted in field personnel.
- The Safety Committee Meeting minutes of monthly meetings were provided for 2009.

[80] February 23-25, 2009 interviews with field crew employees.

Discussion on Finding 9-4

Safety Committee membership consists of[81]:

- Safety and Loss Control Coordinator – Chairman
- Manager, Operations
- Vice President/Manager, Engineering
- Manager, Human Resources
- Office Services Manager
- IT and System Engineer
- Crew Leader
- Lineman

Meetings are held quarterly.

The meeting agendas are typically:[82]

- Review Accident Investigations.
- Review Safety & Implement Appropriate Safety Suggestions from Employees – Green Cards.
- Review Improvements of Safety Performance.
- Communications of Safety Suggestions – Employee Break Room.
- Develop Guidelines for such issues as Shelby Energy Reimbursement of Safety-Related Personal Equipment.

Given that the primary focus of the agenda is on field work, the committee would have a more appropriate balance in representation if it increased its field crew membership and decreased its office management representation. In that way, field crew members may be able to develop a higher sense of ownership of the committee's functions than is currently possible. On the other hand, due to the likelihood of periodic Workers Compensation issues on the agenda, the Human Resources Manager might be a valued added member.

Recommendation Based on 9-4

1. **Continue to take and issue minutes of future Safety Committee meetings.**
2. **Consider dropping as members of the Safety Committee the Office Manager and VP & Manager Engineering, and adding a second lineman.**

Finding 9-5

Findings relative to the Accident Investigation Committee are as follows:

- The Committee's constitution and function is consistent with industry practices.

[81] February 23-25, 2009 interview of the Safety and Loss Control Coordinator. Minutes of Safety Committee meetings held in 2009.

[82] Ibid.

- No reference to this Committee is found in Policy No. 908.
- It has no field personnel as members.

Discussion on Finding 9-5

Accident Investigation Committee membership consists of:[83]

- Safety and Loss Control Coordinator
- Vice President/Manager, Engineering
- Manager, Operations.

There are no documented investigations by this Committee. It is anticipated that it would called into action only when a significant accident occurs. The Committee reports to the CEO and may serve an appropriate role when senior Management cannot readily determine whether there was a failure to comply with Shelby Energy's safety policies and/or there is an opportunity to derive lessons learned from an accident to raise awareness of employees as part of the continuing effort to improve safety.

One of the role/scope issues to be addressed is whether this Committee would also investigate accidents involving its contractor, currently Elliott Construction. A further scope/role issue to be addressed in Recommendation 9.5 (a) is to provide some guidance as to when the Committee should report its findings directly to Shelby Energy's attorney, under attorney-client privilege, vs. to Management directly.

Absence of a field crew member may limit the effectiveness of this Committee. Absence of an external member may limit the objectivity of the Committee in investigating accidents.

Recommendation Based on Finding 9-5

1. **Include in Policy No. 908 the role of and guidelines for the Accident Investigation Committee, including whether contractor accident/incident reporting should be included and as to when accidents reports should be provided directly to Shelby Energy's attorney rather than directly to Management.**
2. **Consider including at least one lineman as a member. Consider rotating linemen on an annual basis to give a wider group of field personnel an opportunity to participate.**
3. **Consider including an outsider such as an Owen Electric representative on the Committee.**
4. **Issue reports of Committee Investigations.**

[83] February 23-25, 2009 interview of the Safety and Loss Control Coordinator.

Finding 9-6

In regard to Shelby Energy's Hazardous Energy Control Program, the following findings are made:

- Although Policy No. 908 Section II paragraph 7 describes the use of hold card/tag out procedures, it does not reference the APPA Safety Manual Hazardous Energy Section/Lockout/Tag out, Section 507.23 procedures.
- Shelby Energy's Storm Emergency Restoration Plan is not written as a procedure and thus may not be well understood by all participants in the event of a significant and sustained emergency.
- Concerns expressed about insufficient communication between the dispatch supervisor and field crew employees during restoration efforts in the February 2009 ice storm call for follow-up review by senior Management.

Discussion on Finding 9-6

The APPA Safety Manual Section 507.23 covers hazardous energy control and is used appropriately by Shelby Energy as the primary procedural document for this purpose.[84] Since this is an important procedure from a safety perspective, it should be referenced in Policy No. 908.

Shelby Energy's "Storm Emergency Restoration Plan" was described to Auriga as follows:[85]

- When a crew is dispatched to an outage, the crew name and each crew member are written on the outage report. That report stays at Dispatch until service is restored. Also, a note pad is kept on the Dispatch desk with each crew name and truck number and which line outage they are working on.
- The crew working the outage tells Dispatch when the line is ready to be energized. The crew will check with Dispatch to make sure no one else is working on this line. Dispatch approves the line to be energized.
- The crew will energize the line themselves most of the time. If SCADA is used to energize the line, Dispatch will contact the crew or crews and verify that each crew member is in the clear and personal protective grounds have been removed before the line is energized.
- During major outages, the Manager, Operations, the VP/Manager, Engineering and the IT and System Engineer rotate shifts as Dispatch Operator. The Dispatch Operator is teamed with (1) a Customer Services employee, usually the Office Services Manager, to assist in monitoring computer information from the call center and (2) someone from Operations or Engineering to help mark the map to determine the scope of trouble and where to dispatch crews.

[84] February 23-25, 2009 interview with the Manager, Operations, and follow-up clarifying emails.
[85] Ibid.

Generally, when a critical process is fully engaged only infrequently, such as service restoration during major storms, it is wise to have a written version readily available to all participants. Critical procedures, such as the Strom Emergency Restoration Plan should also be formally adopted by the Board. In this case, there are three individuals who rotate as Dispatch Operator during events in which fatigue may set in and when otherwise straightforward procedures can become confusing. Once formalized, the procedure deserves careful review, involving a "table-top" rehearsal, at least annually by all those who have Dispatch Operator and Dispatch support rotation duties as well as by the full field crew.

Shelby Energy is in the process of developing an electronic spread sheet for dispatching purposes during emergency outage restoration. Operations believes[86] the spreadsheet will make it easier to see crew locations at a glance, which will be easier than using the note pad-based process described above. However, Auriga believes, based on experience with dispatch systems in other utilities, that an electronic display board, permanently mounted at the dispatch center, would be significantly more effective and would have a safety advantage. The display board, showing the status of all feeders, should be linked to the SCADA system. The effectiveness benefit is that the data, coming from a direct SCADA feed, would be automatically updated and visible to everyone at the dispatch center. Crew locations can also be posted to the board, manually. The safety benefit derives from the reduced risk by eliminating the chance that incorrect status could be communicated orally or manually. To the extent that a basic outage information system can be implemented, the display board would become a very valuable tool. If Owen Electric has similar interest, a portion of the costs could be shared.

The Auriga Team received information of uncertain validity about alleged poor safety of circuit switching practices and poor communication between field personnel and dispatchers in restoration efforts during the February 2009 ice storm.[87] However, based on further interviews,[88] Auriga is concerned that communication between the dispatch operator and field crew personnel during the ice storm may have been insufficient to assure all deployed employees of safe switching practices. Auriga received no information to suggest that switching practices were actually unsafe.

Recommendation Based on Finding 9-6

1. **Develop a written, detailed procedure for dispatch and field response during outages.**
2. **Reference APPA Safety Manual Section 507.23 in Policy No. 908.**
3. **Review the Hazardous Energy Control Program, along with APPA Safety Manual Section 507.23, in a safety meeting at least once each year.**
4. **Consider development of an electronic display board showing all feeders, linked to the SCADA system, to enhance dispatch information in major storm outages.**

[86] Ibid.
[87] Phone calls were received after the February 23-25, 2009 on-site interviews by the Auriga Team from anonymous individuals representing themselves as Shelby Energy employees.
[88] April 6, 2009 interview of the Manager, Operations and the IT and System Engineer.

5. **By August 31, 2009, facilitated by an outside operations expert, review with all those who were deployed by September 1, 2009 the dispatch process and field practices as used during the February 2009 ice storm. Incorporate any "lessons leaned" in a revised dispatch/field response procedure.**

Finding 9-7

Operating Procedure No. 5, Work Hours for Emergency Outages, which allows that field employees may work initially up to 24 continuous hours before being placed on rest time, is not consistent with high safety standards.

Discussion on Finding 9-7

Operating Procedure No. 5, Work Hours for Emergency Outages, states in its last paragraph: "After working approximately twenty-four continuous hours, employees may be put on rest time for a minimum of eight hours."

Working 24 continuous hours in field operations is not a safe practice. After 16 hours of continuous work, especially with adverse weather conditions, there is a fatigue factor that affects both safety and productivity. Shelby Energy should minimize the risk that fatigue will reduce the safety of field crew employees.

The Auriga Team understands, but has not verified, that this procedure is widely adopted among cooperatives. Nonetheless, the recommendation to Shelby Energy, as stated below, is to strongly consider changing its procedure.

Recommendation Based on Finding 9-7

Strongly consider revising Operating Procedure No. 5, Work Hours for Emergency Outages, to restrict continued work in outage restoration to 16 hours, after which employees are to take a rest break of at least 8 hours

Finding 9-8

With respect to training of operations and maintenance personnel, the findings are as follows:

- Shelby Energy's program for training apprentices on safety related practices, and for ensuring ongoing training of field personnel, is consistent with industry standards.
- Shelby Energy's training records for field personnel were well documented from 2006-2008. However, the document formatting and lack of summarization made the records difficult to review and, therefore, they are not currently useful for Management's comprehensive oversight on employee training.

Discussion on Finding 9-8

Training requirements for apprentice linemen are appropriately defined in Shelby Energy Operating Procedure No 7.

Based on a review of Shelby Energy's training reports spanning the past four years, its field personnel have appropriately attended the following training classes and/or workshops. In the list below, KAEC is the Kentucky Association of Electric Cooperatives, TVPPA is the Tennessee Valley Public Power Association, and TSCA is the Toxic Substance Control Act.

- Basic Skills Workshop – KAEC
- Lineman Apprenticeship Program – TVPPA
- Serviceman's Workshop – KAEC
- Hot Line Skills Workshop – KAEC
- Superintendent and Foreman's Conference – KAEC
- Safety Coordinators Conference – KAEC
- 8-Hr, Emergency Response Refresher Training – Murray State College
- National Electrical Safety Code Seminar – KAEC
- TSCA Section PCB Workshop
- PCB Management and Record Keeping Workshop
- Safety Accreditation Program – KAEC
- Kenergy Safety Day
- On-line Training – Contracted each year for 8 to 12 topics

These workshops are attended regularly by Shelby Energy personnel.

The topic span and content of these workshops is appropriate and consistent with standard industry practices.

Shelby Energy's training records are not user friendly. Completion sheets are accumulated by training course rather than by employee name.

The Manager, Operations is on the Safety Sub-Committee for KAEC, which sets up training programs for all the cooperatives in the state.[89] The subcommittee meets two or three times a year, or as needed, to develop new training programs. Most programs are already in place and are revised according to cooperative training needs.

The KAEC Safety Sub-Committee is an excellent opportunity for Shelby Energy to have an overview of the training activities in other coops and the Auriga Team applauds this engagement.

Recommendation Based on Finding 9-8

1. **Reformat training records by employee name as the primary reference and incorporate past training information.**

[89] February 23-25, 2009 interview of the Manager, Operations.

2. **Develop a Training Program Document to describe Shelby Energy's multi-year training plan for apprentices as well as for advancement and periodic refreshment of skills of seasoned field crew employees. Include Operating Procedure No. 7 on Apprentice Training in this document.**
3. **Reference the Training Program in Policy No. 908.**

Finding 9-9

Findings relative to Shelby Energy's Accident and Incident Reporting practices are as follows:

- These practices are in line with industry practices.
- However, there are no summary reports that capture accident and incident data over time.
- No records are kept and reports made of accidents and incidents involving its construction contractor, Elliott Construction.

Discussion on Finding 9-9

Incidents are typically defined as minor accidents without notable property damage and without injury. Reporting of all accidents is required but there is, in all utility environments, a gray area of what constitutes a reportable minor accident.

Reporting of Accident and Injuries is included in Policy No 908, Section II, paragraph 14, pages 7-8. Although this section does not specifically mention incidents, incidents should be included in reporting under this policy. If necessary, the policy should be updated to clarify this requirement.

Shelby Energy's documentation[90] using its Supervisor's Report of Injury/Illness Form did show some incident cases. The title of the reporting form would be consistent with the above Policy # 908 reference if the form was renamed Supervisor's Report of Accidents/Illnesses.

The absence of summary information accompanying Shelby Energy's Accident and Incident Reports makes it difficult to view trends and establish programs that may be helpful in implementing practices to minimize accidents and incidents.

Implementation of the recommendation based on Finding 9-1 above, on expanding safety related information provided to the Board, requires information on accidents and incidents on Shelby Energy sites incurred by Elliott Construction employees. Given the safety provisions in the Elliott Construction contract, it should not be difficult to arrange for Elliott to provide these reports to Shelby Energy.

[90] Supervisory investigation reports and workers compensation reports for 2004-2008. Vehicle accident investigation reports for 2003-2008.

Recommendation Based on Finding 9-9

1. **Develop a monthly/quarterly report, such as an Excel spreadsheet, to include all accidents as follows:**
   - **Incident Cases – without doctor visit and personal injury**
   - **Personal Injury Cases – these are also workers' comp cases**
   - **Lost Work Day Cases**
   - **Vehicular Incidents – without KY State Police Investigation**
   - **Vehicular Accidents – with KY State Police Investigation**
2. **Utilize specific information already contained in various investigation reports:**
   - **Brief description of accident/incident cause and type of injury if appropriate**
   - **Frequency – monthly/quarterly – the report should show year-to-date numbers**
   - **At the beginning of each year, reporting starts with a clean slate**
   - **Over time, using end-of-year summary data, trends should be developed**
   - **Utilize trends in determining necessary preventive measures to focus on the improvement of safety performance and identifying necessary areas of training or retraining**
3. **Summarize property damage accidents separately or at the end of the report**
4. **Compile data for Elliott Construction, and/or successor construction contractors, in the same format and manner as for Shelby Energy employees.**

Finding 9-10

Findings in relation to Shelby Energy's reporting of safety-related violations are as follows:

- The language in Policy No. 908, Section III, page 15 & 16, for Reporting Procedures and Disciplinary Action, is consistent with standard industry practices.
- The language in Policy No 908, Section II, paragraph 14. C, page 8, for "Near Miss" reporting is consistent with standard industry practices.
- Shelby Energy Management and employees have the long-term opportunity to foster a trust-based culture in which safety violation reporting is rewarded and the focus is on what everyone can learn.

Discussion on Finding 9-10

Encouraging employee reporting of safety violations and near-miss events is a challenging area for every employer in the country. The benefit of establishing an environment conducive to employee reporting without duress or fear is that accidents are further reduced over time and the lessons learned from the relatively voluminous near-miss data can be used effectively to enhance safety practices.

It is very important that employees experience that Management uses this information for preventive measures rather than punitive measures. The safety culture that elicits

employee reporting on violations is inevitably founded on mutual trust and respect between Management and employees.

Recommendation Based on Finding 9-10

1. **Shelby's Management should develop and implement a specific reward system for employee reporting of violations and near misses.**
2. **Shelby Management should develop practices for prompt integration of lessons learned from reported violations and near misses in its regular work practices.**

Finding 9-11

Findings in relation to Shelby Energy's communication of safety related expectations and monitoring of safety-related practices of its construction contractor are as follows:

- Shelby Energy's contract with Elliott Construction is appropriately explicit as to the requirements of Elliott to conduct its construction work safely, and there is an important termination provision available to Shelby Energy in the event that Elliott's work practices are found to be unsafe.
- Opportunities exist for using summaries of the documented inspection records for expanding reporting to the Board on Elliott's safety performance (see Finding 9.1).

Discussion on Finding 9-11

The following practices are in place for monitoring Elliott safety practices:[91]

- The Safety and Loss Control Coordinator conducts periodic (e.g., weekly but no less than monthly) job inspections of contractor work to assure Elliott's compliance with safety rules, regulations and standards and to identify any defective tools and equipment. Each inspection of Elliott's work and practices is documented by Shelby Energy.
- The Manager, Operations conducts weekly field site visits and no less than one monthly safety inspection of Elliott's work.
- Representatives of Owen Electric and KAEC make monthly safety inspections of contractors who are working on the day of their visits.
- Shelby Energy requires Elliott documentation of background checks on its employees to assure adequate safety training.
- Shelby Energy requires Elliott to provide safety training records for its employees.

The Shelby Energy inspection program now exceeds requirements in the September 15, 2008 settlement agreement with the Kentucky Public Service Commission, which requires monthly inspections.

[91] February 23-25, 2009 interviews of the Manager, Operations and the Safety and Loss Control Coordinator.

Shelby Energy's documentation will enable improved control and offers the potential of a credible feedback loop to Elliott if the quality of its safety practices is seen to decline. It will also support Management's regular reporting to the Board of Elliott's safety performance (see recommendation based on Finding 9-1).

Recommendation Based on Finding 9-11

Shelby Energy's Safety and Loss Control Coordinator should develop an effective tracking/trending system to summarize the results of safety related monitoring of Elliott's construction activities.

Finding 9-12

Shelby Energy's practices for communication of safety-related information to its customers are in line with standard industry practices.

Discussion on Finding 9-12

The Auriga Team received examples of Shelby Energy media used for communicating information on public safety to its customers:

- Bill stuffers
- Fliers
- Kentucky Living Magazine - KAEC
- Mobile Safety Trailer that conducts High Voltage Safety Training at the public annual meetings - KAEC
- Annual Job Fairs – approximately 1,000 people receive demonstrations on the importance of staying away from downed power lines.
- Shelby Energy representative attends various schools each year to conduct training concerning electrical hazards.

On the basis of this finding, no recommendation is necessary.

Finding 9-13

Findings in relation to Shelby Energy's equipment, tools, and warehouse & yard management are as follows:

- Condition and degree of care of equipment and tools was satisfactory.
- Condition and organization of the warehouse was excellent.

Discussion on Finding 9-13

The following inspection results[92] pertain to Shelby Energy's equipment, tools, and warehouse & yard management:

[92] Site inspection, February 25, 2009.

Equipment -- all equipment was parked inside a closed building, which enhances protection from the elements and from vandals:

- Insulated Aerial Device/Bucket Truck – a few minor marks and scratches on the fiberglass boom.
- Two Digger/Derrick Trucks – no deficiencies observed. Evident that trucks were to be cleaned and equipment re-organized after the normal disarray of the February 2009 ice storm, but recovery time seemed a little lengthy.
- Cable Reel Trailer – recently purchased with several new design features.

Tools –

- Each bin was opened on each truck body to inspect hand tools, slings, rope, grounds and electrical protective equipment. No defects were observed.

Warehouse & Storage –

- Warehouse was excellent in all areas such as arrangement, material storage, housekeeping and staging material for each work order.
- Electrical equipment was arranged in an orderly manner for easy identification.

On the basis of this finding, no recommendation is necessary.

Finding 9-14

Shelby Energy's safety practices in field maintenance work appear to be satisfactory.

Discussion on Finding 9-14

Observations[93] were made of a Shelby Energy three-man crew replacing an underground service to a new house replacing a house that had burned down. The job consisted of digging a trench, installing new conduit, pulling new service cable in new conduit, connecting new conduit to old conduct on pole, pulling new cable through old conduit on pole and connecting new cable to pole mounted transformer. Tools on the truck were also inspected.

Work was being performed in a safe manner and no defects in tools and equipment were identified.

On the basis of this finding, no recommendation is necessary.

Finding 9-15

Shelby Energy's progress in meeting Items 4 through 15 of the Settlement Agreement entered into between Shelby Energy and the Staff of the KPSC, as incorporated in the KPSC Order dated September 29, 2008 in Case No. 2008-00069, is satisfactory.

[93] Auriga on-site observations, April 6, 2009.

Discussion on Finding 9-15

The Table 9.1 shows the assessment of the Auriga Team as of June 24 2009, of Shelby Energy's progress against the 12 action items contained in the aforementioned Settlement Agreement. Note that Table 9.1 renumbers the 12 action items contained in the Settlement Agreement but retains the same sequence.

Table 9.1 – Summary of Shelby Energy's Accomplishments Relative to Settlement Agreement Commitments

Items in Shelby Energy- KPSC Settlement Agreement	Completion Date/Status	Comments
1. Within 30 days of entry of this Stipulation, Shelby Energy shall submit a copy of the letter previously sent by Shelby Energy to Dobson Construction communicating Shelby Energy's decision to stop work on all of Dobson Construction's remaining projects under the November 21, 2006 RUS contract due to financial reasons.	06/02/08	Letter provided to Dobson Construction and verification along with a copy of the letter was submitted to KPSC on 07/21/08.
2. Shelby Energy shall continue to employ a full time Safety and Loss Control Coordinator who shall have responsibility for ensuring that Shelby Energy's construction crew personnel and contractor construction crew personnel have received all necessary and required safety training.	10/24/08	Letter submitted to KPSC verifying that Shelby has a permanent Safety & Loss Coordinator. Documentation has been received from the current construction contractor validating required safety training is completed by personnel working at Shelby Energy Cooperative.
3. Shelby Energy shall ensure that the Safety and Loss Control Coordinator receives all necessary and required safety training including training in NESC regulations and all applicable Occupational Safety and Health Administration regulations.	09/2008	Training began during September, 2008 and is a continuing process. Future training and refresher courses will be planned for this position to maintain a level of competence and expertise.
4. For a period of three years from the date of entry of the final Order in this case, Shelby Energy shall provide a semi-annual report to the Commission explaining, in detail, the safety training courses attended by its Safety and Loss Control Coordinator and all certifications the Safety and Loss Coordinator has earned during that time period.	03/10/09 (Date of 10/14/08 on letter was incorrect)	The first set of training documents was submitted on 03/10/09 to the KSPC covering the period of 09/08 through 02/09. Next report period will cover 03/09 through 09/09 and be submitted approximately mid October, 2009.
5. Shelby Energy will continue to employ an outside safety auditor to conduct audits of all Shelby Energy construction crews and	10/14/08	Monthly safety audits have been completed and submitted to KPSC verifying an outside

Items in Shelby Energy- KPSC Settlement Agreement	Completion Date/Status	Comments
contractor crews for one year from the date of entry of the final Order in this case and shall provide copies of all safety audit reports to the Commission during that period.		safety auditor has been inspecting from 09/08 through the current period and will continue for the ordered period of one year.
6. Upon expiration of the one-year period described under requirement 5 above, Shelby Energy's Safety and Loss Control Coordinator shall be responsible for conducting safety audits of all Shelby Energy construction crews and contractor crews, and for a period of three years from the date of entry of the final Order in this case, the Safety and Loss Control Coordinator shall provide copies of all safety audit reports to the Commission.	Up to date currently	The Safety Coordinator is currently performing safety audits and will continue to do so after the expiration of the one-year period. Safety audits will be provided to the KPSC on a monthly basis for the following three-year period.
7. Shelby Energy will ensure that its safety audit report forms identify the person who performed the safety inspection by name, title, address, and telephone number.	09/17/08	A copy of the current safety audit report forms were provided to the KPSC reflecting the requested data.
8. Within 90 days of entry of the final Order in this case, Shelby Energy will amend the language of its safety handbook to address the safety issues that led to the accident in which Mr. Carroll was fatally injured.	09/17/08	A copy of the revised Policy No. 908, Safety and Loss Control Practices and Operating Procedure No. 5-1 were submitted to the KPSC addressing the safety issues discussed.
9. Shelby Energy shall require all of its construction crews and contractor construction crews to follow the requirements of its safety handbook, all NESC regulations, all applicable OSHA regulations, and all other applicable safety laws and regulations while working on any construction project for Shelby Energy.	10/23/08	A construction contract was initiated with the current contractor, Davis H. Elliott. The contract included requirements to follow the applicable safety regulations, laws and policies that govern Shelby Energy Cooperative. In addition Addendum 1 to RUS Form 790 has an insertion at the end to Article IV, Section 1, Protection to Persons and Property that enhances the requirement.
10. Before requesting the submission of bids for its next construction project, Shelby Energy shall amend its bidding process to require that all bidders be pre-qualified, based on applicable criteria, including certification that all construction crew members of the bidding firm have received all necessary and required safety training.	09/01/08	On 08/29/08, Shelby Energy Cooperative utilized Gary Grubbs, P.E. with Patterson & Dewar Engineers to implement a bidding process to verify bidding contractors meet necessary safety criteria. A KPSC representative was

Items in Shelby Energy- KPSC Settlement Agreement	Completion Date/Status	Comments
		invited to attend the pre-bid meeting and documents were provided to KPSC supporting the process.
11. Shelby Energy will amend its pre-qualification form and will provide a copy of the amended form to the Commission prior to the issuance of its next request for bids.	09/17/08	The Pre-Bid Questionnaire was amended and a copy provided to the KPSC.
12. Shelby Energy shall amend its standard RUS contract to include a specific termination-for-cause provision, allowing Shelby Energy to terminate the contract immediately upon its discovery of any violation of any NESC regulation.	09/17/08	Addendum 1 to RUS Form 790 includes an addition to Article V, Section 3. Termination for Cause of the construction contract and a copy was submitted to the KPSC.

Based on the above finding, no recommendation is necessary.

10 HUMAN RESOURCES

This section examines the general themes of organization, staffing and supervision of personnel in Shelby Energy, including the applicable policies and procedures, employee pay and benefits, and training.

10.1 Staffing Levels

Adequate staffing levels are necessary for utilities to provide responsive and reliable services to their customers. In striving for high service quality, utilities, similarly to companies in all service industries, find that increased labor costs impose significant cost pressure. Other inescapable cost pressures are driven by regulation and law, such as those related to the environment. Every utility finds that it needs to continually find an appropriate balance between service quality (a function of staffing levels) and the drive (or regulatory constraint) to maintain low rates for its customers.

The current staffing level at Shelby Energy is low compared to the recent past (29 employees, versus 32). In 1989, there were 45 employees.[94] Shelby Energy plans to hire four or five additional staff in 2009, focusing first on increasing the field crew strength.

The current Engineering function consists of a Vice President/Manager of Engineering and a single staking technician, who reports to the Vice President/Manager. In addition, the IT and Systems Engineer, although reporting directly to the CEO, indicated that he coordinates closely with the Vice President/Manager of Engineering.[95] As stated in Chapter 7, Shelby Energy relies substantially on the services of:

- Distribution System Solutions (DSS) for its distribution planning
- Electric Service Company for staking on larger projects;
- Owen Electric Cooperative for routine engineering and staking jobs;
- Patterson & Dewar for professional engineering projects, system inspections and system evaluation;
- Neville Technologies for information technology projects and routine assistance with Shelby Energy's data servers and communication systems.

The current staffing levels and work practices in Operations lead to a relatively high level of overtime by field crew employees. An analysis of overtime by operations staff for a selection of four months: January, February, July and August, 2008 (which preceded the extraordinary level of field work following Hurricane Ike in September 2008) showed an average overtime rate of 21%.[96] The overtime hours these months were as follows:

- January – 315 hours

[94] Phone-call confirmation with the CEO on May 15, 2009.
[95] February 23-25, 2009 interview.
[96] Document No. 3-1 in Response to Data Request.

- February – 865 hours, including overtime for a tornado that traveled through the northern portion of Shelby Energy's service territory.
- July - 320 hours,
- August – 590, of which 293 were due to a storm in Shelby County on August 29, 2008.

During these four months, three employees had four-month average overtime percentages of 38-40% and, in individual months among these four, the overtime percentages among a few employees was in the vicinity of 50%. These high overtime rates are, in part due to the above-noted storm events and in part a function of the work scheduling practices in Operations (on-call shifts and service reconnects during out of regular hours.)[97] There are some linemen/field crew members who request overtime hours, and at times, with consent, work overtime hours that would have gone to another crew member.[98]

Finding 10-1

The current staffing level is low compared to the past. Engineering is particularly short-staffed. There are plans to recruit additional staff. Given the reduced staffing levels, as a result of exceptional storms and routine service requirements (such as on-call hours, and out-of-hours reconnections), Shelby Energy field crew employees work a high number of overtime hours.

Discussion on Finding 10-1

The Auriga Team, based on its overall assessment of operations, engineering, construction, and office functions, is impressed that the many necessary utility responsibilities are carried by relatively few employees. However, Shelby Energy is vulnerable to future employee departures as well as the demands restoring service after of severe storm events. Auriga is concerned that the current employee strength may not be sufficient for providing ongoing safe and reliable electric service. However, Shelby Energy does partner with Owen Electric Cooperative for assistance as needed, utilizes Elliott crews to supplement its own, participates in the mutual-aid agreement established for Kentucky cooperatives and coordinates through the KAEC for out-of-state cooperative assistance as needed during major outage events.

In particular, based on the findings on Engineering functions (see Chapter 7), it is apparent that engineering functions in Shelby Energy have been and are being performed satisfactorily. However, the Auriga Team is concerned that Shelby Energy is vulnerable to the potential departure of the IT and Systems Engineer and the Vice President/Manager of Engineering, or both. The Auriga Team is not suggesting that either of these two employees' departure is imminent. However, the Vice President/Manager Engineering is among the Shelby Energy employees eligible for retirement.[99] Succession planning issues are discussed in more detail in the following section.

[97] Document No. 3-2 – Policies related to overtime work – in Response to Data Request.
[98] April 6, 2009 interview with Manager, Operations.
[99] February 23-25, 2009 interview of the Human Resources Manager.

Auriga believes that the balance of internal and outsourced engineering work is too heavily weighted to outsourcing and that increasing the level of Engineering staff would provide more robustness and greater continuity to Shelby Energy's engineering work over time.

Excessive overtime hours can be inconsistent with the objective of ensuring a high level of safety. In utilities elsewhere, field crew employees frequently push for increased overtime in order to increase overall pay. Excessive pay motivation may or may not be a factor in Shelby Energy and is worthy of Management's consideration. Review of field crew staffing levels should be done in conjunction with a review of the work scheduling practices, where there may be opportunity for reducing the requirements for work schedules outside regular workday hours.

Recommendations Based on Finding 10-1

1. **Hiring for open positions should be a high priority.**
2. **Review Engineering staffing levels in light of the Succession Plan (see following recommendation) and consider increasing the balance of engineering work from outsourcing to internal assignment.**
3. **Review field crew staffing levels in conjunction with a review of work scheduling practices**

10.2 Background and Experience of Employees

Given the relatively small size of Shelby Energy's operations, a well skilled workforce is essential to ensuring a well functioning organization and providing reliable service to customers.

Shelby Energy employees have on average over 14 years of service, with five employees having over 30 years service. Several of the longest serving staff members have spent their entire careers at Shelby Energy, which can have both benefits and drawbacks. The benefits are that long-serving employees are typically loyal and bring to bear their extensive local experience in performing their work. The drawback can be that long-serving employees typically resist Management initiatives in re-organization and improved work practices.

The senior managers have extensive experience at Shelby Energy – the VP/Manager of Engineering has 30 years, the Operations Manager, 33 years, and HR Manager, 32 years. The CEO has 19 years of experience at Shelby Energy, primarily in areas of finance and accounting. Shelby Energy is one of the better paying employers in the area (salaries of non-managerial staff range from 112% to 216% of the area median income)[100] and, according to the CEO, this has enabled Shelby Energy to recruit and retain a competent workforce.[101,102]

Currently, the primary responsibilities that would normally fall to a financial manager (CFO in a larger organization) are carried by the CEO. Other financial duties are being handled by the Supervisor, General Accounting. The employee in this position has been with Shelby Energy approximately two years, has an Associates Degree in Accounting and more than twenty years of experience in the accounting and finance field. This employee is continuing to be trained on assuming more of the financial duties and responsibilities.

All employees are required to have a high school diploma, and many have successfully completed college level courses. Office and professional employees all seemed, in the interviews conducted by the Auriga Team, to be well educated and skilled. Lineman apprentices must complete a four year comprehensive apprentice program, before being promoted to lineman. Where additional skills required, Shelby Energy supports training programs for employees to acquire those skills.[103]

[100] Document No. 2-33 in Response to Data Request.
[101] Document No. G-8 in Response to Data Request.
[102] The average salary in the Louisville Metropolitan Area (the area that encompasses the Shelby Energy service territory) is $38,920 while the median salary (50% of population earn above this level, 50% earn below) is $31,050 (US Bureau of Labor Statistics, Occupational Employment Statistics, 2007). In Shelby County, the median household income in 2007 was $52, 871 (US Census Bureau).
[103] Document No. G-3 in Response to Data Request - employee job descriptions, interviews with Shelby Energy staff on February 23-25, 2009.

Finding 10-2

1. Shelby Energy employees have an average length of service of over 14 years. Background and experience of employees is suitable for their roles and responsibilities.
2. Shelby Energy's CEO prepares for Management succession by internal re-assignment and promotion, but may not have sufficiently experienced internal candidates to fill key positions if vacated in the near future.[104]

Discussion on Finding 10-2

Given the age profile and length of service of several key employees of Shelby Energy, there is a need to consider succession planning. When senior management personnel leave they should be replaced by competent employees, either from within the organization or by external hires, who can sustain the success of the organization. Without a well planned and well executed transition, Shelby Energy runs the risk of deterioration in the quality of management, customer service and technical functions.

The CEO is keenly aware of the importance of succession planning and, provided some of her specific ideas on internal succession.[105] However, no written succession plan exists. A comprehensive succession plan should have the following elements:

- Prioritized need for replacement – identify key personnel eligible and likely to retire soon, who, if they left, would create significant gaps in the overall functioning of Shelby Energy.
- Identified personnel within Shelby Energy who might make suitable replacements.
- Defined training program to develop the required expertise to fill the identified positions where gaps may occur.
- External hiring plan, should it be necessary to look outside of Shelby Energy for a replacement – plans should include a timely search process, whenever possible such as when retirements are announced well in advance of departure, to allow for adequate transition. The CEO may want to consider an overlap period between departing employees and new hires to facilitate the transition.
- A communication plan for all employees, including realistic statements on the opportunity for advancement (consistent with Shelby Energy's recruitment policies). Note that it is appropriate for specific elements of the succession plan to be confidential at the CEO level.

Consistent with the future organization structure recommended in Chapter 4, General Management, Shelby Energy has a need for a Finance Manager who would take over the budgeting, accounting, and other financial duties currently handled by the CEO. The succession plan should address this position as well as the other three Manager positions identified in Chapter 4. Key qualifications for the four Manager positions in the

[104] Interviews with CEO February 23-25, 2009. Document No. G-3 in Response to Data Request.
[105] February 23-25, 2009 interviews.

recommended new organization structure are provided above in the discussion related to Finding 4-11.

Recommendation Based on Finding 10-2

A comprehensive succession plan, containing the elements described in the discussion, should be developed by December 2009 and updated periodically thereafter. The succession plan should address the four Manager positions identified in the Recommendation based on Finding 4-11.

10.3 HR Policies and Procedures

Human Resources policies and procedures are the foundation upon which an organization functions with respect to its employees. To maintain employee morale and productivity, it is important that HR policies and procedures are comprehensive and that they are provided to employees and implemented in a transparent manner.

Shelby Energy has documented its HR policies and is in the process of updating them.[106] Shelby Energy works with a HR consultant to complete this process. The CEO reviews any proposed policy changes with the consultant and Shelby Energy's attorney. Changes are brought to the Board for approval and then distributed to the employees.

Shelby Energy's stated goal in 2008 was to review the entire set of HR policies within 18 months;[107] As of February 2009, approximately 50% were completed, and the remaining policies are expected to be reviewed and updated by the end of 2009.

HR Related Policies in the 900 series are listed in Table 10.1.

[106] Shelby Energy's Policy Binder, in particular policy series 900. Also, February 23-25, 2009 interviews with CEO and Human Resources Manager.
[107] February 23-25, 2009 interview.

Table 10.1 – List of HR Related Policies

Number	Description
900	Employment of Personnel
901	Employment Practices
902	Wage & Salary Administration
903	Holidays
904	Vacation
905	Sick Leave
906	Payment of Sick Leave and/or Vacation Accruals Grandfathered in July 31, 1994
907	Other Employee Benefits
908	Safety and loss Control Practices
909	Disciplinary Procedures
910	Drug and Alcohol
911	Conduct of Employees
912	Sexual Harassment
913	Employee Training Programs
914	Employee Membership in Civic & Professional Organizations
915	Employee Travel and Out-of Pocket Expenses
916	Retirement of Cooperative Employees
917	Major Medical and Hospitalization Insurance for Retirees
918	Prohibition of Firearms and Concealed Deadly Weapons
919	Employee Assistance Program
920	Major Medical and Hospitalization Insurance for Active Employees
921	Employee Discrimination
922	Use of Electronic Communications
923	Major Medical and Hospitalization Insurance for Active Employees Elected, Appointed or Hired After September 27, 2001
924	Privacy Policy for Health Benefit Plans
925	After Hours Employment
926	Employee Code of Ethics
927	Whistleblower Policy
928	Records Management
929	Employment Verification and Reference

Finding 10-3

Shelby Energy has well documented HR policies that are in the process of being updated. There is a lack of documentation of procedures to implement the HR policies.

Discussion on Finding 10-3

While the HR policies are well documented, there is a lack of corresponding documentation of procedures to implement these policies. This lack of procedural documentation can impact transparency of policy implementation and can make training of HR personnel more difficult.

Recommendation Based on Finding 10-3

Shelby Energy should develop written procedures, using the format as described in the Recommendation Based on Finding 6-3, defining the process for implementing the key HR policies.

10.4 Performance Management

Performance management refers to the process of setting goals and targets for employees to accomplish for the future calendar period, usually one year, and then, at the end of the year, reviewing performance against those goals and targets. A good performance management program should provide employees with clarity on what the Board and senior management requires them to accomplish, along with the tools and resources they need to meet the stated goals.

Management and staff reviews take place annually at Shelby Energy. They are provided to employees in a written format and copies are maintained in a personnel file.

The September 2008 performance review of the CEO was conducted by the Board of Directors, and the format was developed with assistance from an external HR consultant. Further discussion and a recommendation relative to CEO performance reviews accompanies Finding 4-7.

Finding 10-4

Shelby Energy's established performance review process for both staff and Management is useful for providing qualitative feedback, but not suitable for ensuring employee target-based performance.

Discussion on Finding 10-4

The Auriga Team reviewed performance reviews for a selection of staff.[108] There are two areas in which the performance review process is weak: First, the reviews include only qualitative assessments of performance and are not based on specific performance targets and quantitative performance metrics. Second, while the reviews frequently identify training needs, action items related to training are often not specific and often lack a timeframe for completion.

A suitable process for performance management includes:

1. A beginning-of-year written plan, using a format such as that illustrated in Table 10.2, and signed by both employee and supervisor.
2. A mid-year review, signed by both employee and supervisor.
3. An end-of-year review, signed by both employee and supervisor.

A quantitative target-based performance plan can be additive to Shelby Energy's existing qualitative performance review process. There is much about the existing review process that is worthwhile and it may not be advisable to abandon it completely.

[108] Documents No. 3-4 and 2-25 in Response to Data Request.

Table 10.2 – Framework for Target-Based Performance Plans
(using examples of objectives and metrics)

Employee Name _____

Time Frame for Plan: (e.g. Fiscal Year 2010)

Initial Acceptance:_____Signed:_____
date Employee Supervisor

Mid-Year Review:_____Signed:_____
date Employee Supervisor

End-of-Year Review:_____Signed:_____
date Employee Supervisor

SEC Strategic Objective 1: Achieve Zero Work-Related Injuries in FY 2010		
Employee Objectives	**Measurement**	**Results**
Complete APPA training program xxx	Complete part xx.1 by 3/1/2010 and part xx.2 by 6/1/2010 with Course Trainer sign-off	(to be filled in mid year and end-of-year)
Regularly follow the SEC Hazardous Energy Control Procedures	(1) Review HECP with Supervisor and receive his sign-off by 2/1/2010. (2) Review performance relative to HECP at mid year and end-of year and receive Supervisor sign-off	(to be filled in mid year and end-of-year)
etc		
etc		
SEC Strategic Objective 2: Accomplish 100% of FY2010 ROW Program		
Employee Objectives	**Measurement**	**Results**
Accomplish Feeder 4 ROW maintenance by 3/1/2010	DSS inspection and sign off	(to be filled in mid year and end-of-year)
Receive no tree-contact outages on Feeder 4 in FY2010	Number of Feeder 4 tree-contact outages in FY2010	(to be filled in mid year and end-of-year)
etc		
etc		

Recommendation Based on Finding 10-4

Develop and implement a target-based performance plan for all employees.

10.5 Recruitment

The recruitment policies used by an organization specify the process for recruiting new hires, the opportunity for existing employees to apply for open positions, and restrictions on who can be hired (e.g., relatives).

Shelby Energy's recruitment policy is contained in Policy 900, most recently updated in 2007. It includes the following:

- A vacant position will be first made available to qualified applicants from presently employed personnel.
- A ban on employment of "Close Relatives", defined as spouse, child, grandchild, parent, grandparent, brother, sister, aunt, uncle, nephew or niece. In the view of Auriga, this restriction is appropriate, given the small size of the Shelby Energy Staff.
- All employees are considered to be in training for the first six months, and can be dismissed at any time during or after the training period at the discretion of Shelby Energy.

The budget for new hires is identified in the annual planning process, and included in departmental budgets. With the current low staffing levels, the CEO indicated that Shelby Energy has current hiring plans to add a general accountant and two linemen.[109]

Finding 10-5

Shelby Energy's recruitment policies and practices are adequate and appropriate for its business needs.

Discussion on Finding 10-5

The Auriga Team reviewed the process used currently by Shelby Energy.[110] The CEO and department head identify the job requirements and pass them to the HR Manager. The minimum education requirement is at least a high-school diploma for all applicants. Job advertisements are placed with the Department of Employment Services in Shelbyville and in local newspapers for approximately one month. The hiring process takes approximately 3 months from start to finish.[111]

No recommendations are necessary relative to Finding 10-5.

[109] Also shown in Document No. G-3 in Response to Data request - Future Organization Chart.
[110] Based on interviews conducted February 23-25, 2009 with the CEO and the Manager, Human Resources and with reference to the Shelby Energy policy binder.
[111] Document G-10 in Response to Data Request.

10.6 Employee Benefits

Employee benefits are important commitments in the context of recruiting and retaining competent employees. Benefits should be commensurate with industry norms and with regional pay scales.

Shelby Energy provides a generous benefit plan for employees.[112] The CEO indicated that benefits, while still very generous, are lower than they have been in the recent past.[113] In addition, Shelby Energy has reduced benefits, e.g., health insurance payable to Directors. Employee benefits include:

- Medical insurance – Shelby Energy participates in a self-funded plan through EKPC. Shelby Energy employees pay a contribution for their health coverage (with contributions varying depending on the number of family members covered).
- 401 (k) – provided through NRECA. Shelby Energy provides a 2% match if the employee contributes at least 1%.
- Defined benefit pension – the pension plan is managed through NRECA. Shelby Energy contributes for up to 30 years of employment. Employees do not have to contribute to this program. An employee can continue working after 30 years, but does not receive any additional pension benefits. At 30 years of service, the employee can leave their pension amount with NRECA or roll over to another fund manager
- Holidays and vacation[114] - Shelby Energy provides employees with 10 holidays and a minimum of 10 and a maximum of 20 vacation days. This benefit is similar to comparable companies.

Finding 10-6

Shelby Energy provides generous benefits to employees that are in line with industry norms, and uses its relationships with EKPC and NRECA to enjoy economies of scale in the provision of benefits. Assuming that these benefits remain affordable, partnering with EKPC and NRECA is an effective way to provide benefits to employees.

Discussion on Finding 10-6

Management of many of the benefits - (401(k), defined benefit pension - is carried out by NRECA, while the management of medical insurance is carried out by EKPC. This outsourcing of activities appears cost effective for Shelby Energy since it provides a high level of service but also reduces the need to hire additional staff to manage employee benefits.

No recommendations are necessary relative to Finding 10-6.

[112] Documents G-8, G9, 2-25.
[113] Based on her February 23, 2009 interview.
[114] Provided in Policy Nos. 903 and 904.

10.7 Training

Ongoing training of employees is an important strategy in maintaining an effective and productive workforce. Training programs should be focused on the needs of the organization, to fill any gaps in existing employee skill sets, and to maintain current knowledge in technical areas. Training includes both formal programs as well as on-the-job programs -- such as apprentice programs or internal training of employees by other employees, e.g. cross-training initiatives.

Given the small size of the organization, Shelby Energy cannot afford to have staff who are not adequately trained. It has a range of training programs for personnel.[115] These include:

- Safety training – see Chapter 9.
- Cross training initiatives – primarily for customer service and field staff.
- Financial support for external college courses – Shelby Energy provides financial support --to a maximum of $3,740 per calendar year (2009), increased by CPI annually-- to employees that enroll in external college courses that are relevant to the needs of Shelby Energy, and approved by their department manager. In addition, on completion of a Bachelor's or Master's Degree, the employee will receive a one-time bonus of 5% of current earnings and, on completion of an Associate degree, a bonus of 2.5% of earnings.[116] In spite of this, according to the CEO, few employees have taken advantage of this training program.
- Apprentice training program: Shelby Energy has a defined procedure for apprentice training and advancement.[117] Reviews must be carried out after the initial six month training period, and then quarterly until all required training units have been successfully completed. The department manager is responsible for tracking the completion of each unit, and maintaining records.
- Ad-hoc training: employees undertake ad-hoc training related to their specific roles and responsibilities, such as training on specific software (e.g., SEDC software, Access, Excel, CRC system). In addition, employees attend conferences, such as those sponsored by NRECA, KPCA. According to the HR Manager,[118] there is not a formal approach to determining what training courses an employee should attend, although according to the CEO, this is changing for individual departments. For example, the Office Services Manager, as part of the annual review process in Customer Services, suggests two training activities for each staff member to undertake during the following year.

Finding 10-7

Shelby Energy management is supportive of a range of training programs, both internal and external, for Shelby Energy personnel. However, Shelby Energy lacks a coordinated

[115] Document S-3 in Response to Data Request.
[116] Policy # 913, and interviews with the CEO on February 23-25, 2009.
[117] Operating Procedure No. 7.
[118] Interview with the H.R. Manager (February 24, 2009).

training plan and tracking system across the organization, to ensure compliance with training objectives.

Discussion on Finding 10-7

Overall, Shelby Energy appears committed to training for its workforce. Training activities, however, do not appear coordinated with annual performance reviews, and there does not seem to be a mechanism for management to track what training staff members have undertaken (except for the formal apprentice training program). There is no requirement to report completion of programs to either department manager or HR. Tracking and reporting of training programs is useful for a number of reasons. Tracking:

- enables department managers to identify training requirements and budgets in a timely manner,
- assists managers with the annual review process, to identify whether required training activities were completed, and
- assists with succession and promotion planning – to identify gaps in expertise that could be filled through training programs.

Recommendation Based on Finding 10-7

Shelby Energy should develop a policy and written procedure for tracking completion of training programs. Training requirements should be explicitly included in the performance management process.

Finding 10-8

The current cross training program is designed to ensure that most employees in a relatively small department are capable of carrying out duplicate roles. However, there is uncertainty among employees regarding the purpose and schedule for rotations in the cross training program; this uncertainty is adversely affecting morale.

Discussion on Finding 10-8

Customer Service Representatives described the operations of Customer Services, the responsibilities assigned to the various customer service and billing representatives and the role of cross training within Customer Services.[119] Currently, several of the employees are undergoing cross-training for different positions. Based on performance reviews and the low level of complaints regarding quality of service experienced by Shelby Energy's customers, the cross training appears to be working well. However, several of the interviewees mentioned a lack of understanding regarding the timing of the cross training assignments and uncertainty regarding final positions as a problem with the current system.

[119] March 7, 2009 interviews of Customer Service Representatives.

There are significant benefits to the cross-training program in particular providing flexibility and robustness within a small organization. However, the details of the program were not well communicated to the employees.

Recommendation Based on Finding 10-8

The CEO and department heads should provide employees with more details on the timing of rotations, the objectives of the cross training, and expectations regarding assignment of ultimate responsibilities (if appropriate).

APPENDIX

APPENDIX

Field Crew Employee Interviews

Background

The purpose of these employee interviews, conducted on February 25, 2009, was primarily to identify safety issues that may be important for Shelby Energy Management to pursue in an effort to further improve safety performance. A minimum 15 to 20% of the work force is normally identified to provide a meaningful set of results; however, in this case, because Shelby Energy is a small organization, six employees were selected. The Auriga Team was provided a suggested list of five employees -- 2 crew leaders, 1 lineman, 1 linemen/serviceman and one apprentice lineman. The Auriga Team selected another lineman/serviceman to add to the list, bringing the total number of interviewees to six.

The Auriga Team conducted the interviews. Observers consisted of a KPSC representative and a Shelby Energy Management representative. At the end of each interview, the interviewee received an invitation to contact Auriga to follow up if they recalled additional safety information not mentioned in the interview. A summary of the interview results is presented on the following page.

General Observations of the Interviewer

- Pleased that the information obtained was consistent, very positive and without significant safety concerns.
- Employees were polite, courteous, respectful and attentive during the interviews.

APPENDIX

On-Site Interviews – Six Employees
February 25, 2009

Question	No. of "Yes" or "Good" Responses	No of "Undecided" Responses	No. of "No" or "Bad" Responses	Further Responses/Notes
1) Do you feel that SEC employees watch out for each other while performing your work?	6	0	0	-
2) How do you feel about the SEC Safety Program?	6	0	0	-
3) Do you feel you have adequate training to perform your work safely?	6	0	0	-
4) Do you feel that you understand the SEC expectations for your work activity? Follow up: If "yes," how were these expectations communicated to you?	6	0	0	"Working with others." "Frequent work directions." "Time and experience" "Safety Coordinator at Monday morning safety meetings"
5) Do you feel that you have sufficient electrical protective equipment to perform your work safely?	5	0	0	N/A for Apprentice Lineman
6) Do you feel that the Monday Morning safety meetings are beneficial?	5	1	0	
7) Do you feel that your daily tail gate safety meetings/job briefings are beneficial?	6	0	0	
8) Do you feel the monthly equipment inspections are beneficial?	6	0	0	
9) Do you feel SEC has adequate safety rules?	6	0	0	
10) Do you feel you understand SEC's safety rules?	6	0	0	
11) Do you ever voice safety concerns to SEC	6	0	0	

12) If your answer to the previous question was "yes," were you satisfied with the way SEC processed your concerns?	5	0	1	See answer to last question, 16) i below, for explanation of this "no" response
13) Do you have a copy of the APPA Safety Manual in your vehicle [or at headquarters]?	6	0	0	
14) Do you feel SEC is making improvements in the safety program?	6	0	0	
15) Are you proud to be an employee of SEC?	6	0	0	
16) What additional safety concerns do you have concerning the SEC safety program?	-	-	-	(i) "Occasionally there are not enough people – example, industrial area while pulling wire over several driveways where tractor trailers are coming in and out." (ii) "Electrical protective equipment is usually stored on insulated aerial device and when the crew is split, the other truck does not carry electrical protective equipment and this sometimes causes problems." (iii) "I was asked if employees needed union representation during these interviews? My response was 'no, not from my perspective.'"
TOTAL RESPONSES IN COLUMN	87	1	1	