



Memorandum from the Office of the Inspector General

July 26, 2010

Kimberly S. Greene, WT 7B-K

REQUEST FOR FINAL ACTION – AUDIT 2009-12593 – DISTRIBUTOR REVIEW OF  
THE CITY OF CHATTANOOGA ELECTRIC POWER BOARD

Attached is the subject final report for your review and action. Your written comments, which addressed your management decision and actions planned or taken, have been included in the report. Please notify us when final action is complete.

Information contained in this report may be subject to public disclosure. Please advise us of any sensitive information in this report that you recommend be withheld.

If you have any questions, or wish to discuss our findings, please contact Richard C. Underwood, Project Manager, at (423) 785-4824 or Jill M. Matthews, Deputy Assistant Inspector General, Audits and Support, at (865) 633-7430. We appreciate the courtesy and cooperation received from your staff during the audit.

*Robert E. Martin*

Robert E. Martin  
Assistant Inspector General  
(Audits and Inspections)  
ET 3C-K

RCU:HAC  
Attachment  
cc (Attachment):

Steve Byone, WT 4B-K  
Peyton T. Hairston, Jr., WT 7B-K  
Tom D. Kilgore, WT 7B-K  
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OIG File No. 2009-12593



Office of the Inspector General

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## *Audit Report*

To the Group President,  
Strategy and External  
Relations

# **DISTRIBUTOR REVIEW OF THE CITY OF CHATTANOOGA ELECTRIC POWER BOARD**

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Audit Team

Richard C. Underwood  
Melissa M. Neusel  
Stephanie L. Simmons  
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Audit 2009-12593  
July 26, 2010

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## TVA Office of the Inspector General

### Why the OIG Did This Review

As part of the annual audit plan, the OIG performed a review of the City of Chattanooga Electric Power Board (Chattanooga), which is a distributor for Tennessee Valley Authority (TVA) power based in Chattanooga, Tennessee. Annual revenues from electric sales were approximately \$461 million in fiscal year (FY) 2008. TVA relies on distributors to self-report customer usage and subsequently the amount owed to TVA (Schedule 1). Customers are generally classified as residential, commercial, manufacturing, and lighting. Within these classes are various rate classifications based on the customer type and usage.

The objective of the review was to determine compliance with key provisions of the power contract between TVA and Chattanooga including (1) proper reporting of electric sales by customer class to facilitate proper revenue recognition and billing by TVA; (2) nondiscrimination in providing power to members of the same rate class; and (3) use of revenues, including any surplus, for approved purposes, such as operating expenses, debt service, tax equivalent payments, and reasonable reserves for renewals, replacements, and contingencies.

### What the OIG Recommends

We recommend the Group President, Strategy and External Relations, work with Chattanooga to (1) remediate classification and metering issues, (2) better comply with identified contract provisions related to customer contracts, and (3) add additional controls related to certain billing system data.

TVA and Chattanooga management generally agreed with and are taking actions to address recommendations 1 and 2. In regard to recommendation 3, Chattanooga believes billing system controls are in place to minimize the risk of a material misstatement. See Appendices for complete responses.

For more information, contact Richard C. Underwood, Project Manager, at (423) 785-4824 or Jill M. Matthews, Deputy Assistant Inspector General, Audits and Support, at (865) 633-7430.

July 2010

## Audit 2009-12593 City of Chattanooga Electric Power Board

### What the OIG Found

Our review of Chattanooga found improvements were needed in the areas of:

- **Customer Classification and Metering** – We identified 12 customer accounts not classified correctly and one metering issue that could impact (1) the proper reporting of electric sales and (2) nondiscrimination in providing electricity to members of the same rate class. We were unable to estimate the monetary effect of the classification issues because information was not available.
- **Contract Compliance** – We identified an area where Chattanooga was not meeting power contract requirements with TVA. Specifically, we found three customers with demand above 1 megawatt without a contract.
- **Distributor Internal Controls** – We noted an area where Chattanooga's internal controls could be strengthened to improve completeness, accuracy, and validity of billing system data. Specifically, we found there were no reports or notifications generated of logged changes to key fields in the billing system master file that could be reviewed by independent management.

In addition, we found Chattanooga had more than enough cash on hand to cover planned capital projects and provide a cash reserve of about 13 percent. As of June 30, 2008, Chattanooga reported about \$121.2 million in cash and had capital expenditures in FY 2009 of about 64.7 million, which left cash reserves of about \$56.5 million. While TVA has established guidelines to determine if a distributor has adequate cash reserves (cash ratio of 5 to 8 percent), TVA has not established guidelines to determine if a distributor's cash reserves are excessive. Based on prior distributor audit findings, TVA is in the process of defining criteria for determining when a distributor's cash reserves are excessive.

Finally, we identified certain opportunities to enhance TVA oversight of the distributors that were also identified in previous distributor audits. TVA is in the process of addressing these findings, which include the lack of (1) a joint cost study, (2) guidance for distributors on what constitutes prudent expenditures, and (3) criteria for evaluating when a distributor's cash is excessive.

## **BACKGROUND**

The City of Chattanooga Electric Power Board (Chattanooga) is a distributor for Tennessee Valley Authority (TVA) power based in Chattanooga, Tennessee, with revenues from electric sales of approximately \$461 million in fiscal year (FY) 2008. TVA relies on distributors to self-report customer usage and subsequently the amount owed to TVA (Schedule 1). Customers are generally classified as residential, commercial, manufacturing, and lighting. Within these classes are various rate classifications based on the customer type and usage. Table 1 shows the customer mix for Chattanooga as of June 2008.

**Chattanooga's Customer Mix as of June 2008**

<b>Customer Classification</b>	<b>Number of Customers</b>	<b>Revenue</b>	<b>Kilowatt Hours Sold</b>
Residential 146,95	9	\$188,029,744	2,309,730,041
General Power – 50 Kilowatt (kW) and Under (Commercial)	19,396	34,484,286	380,66 8,351
General Power – Over 50 kW (Commercial or Manufacturing)	3,450	228,526,389	3,271,16 2,091
Street and Athletic	136	3,005,231	34,434,259
Outdoor Lighting <sup>1</sup> 0		2,638,860	22,164,511
Unbilled Revenue		4,038,608	
<b>Total</b>	<b>169,941</b>	<b>\$460,723,118</b>	<b>6,018,159,253</b>

**Table 1**

The distributors are required to establish control processes over customer setup, rate application, and measurement of usage to ensure accurate and complete reporting to TVA. Chattanooga utilizes enQuesta, a computerized Customer Information System, to collect and process information related to all aspects of its end-use billing process including: customer information, meter information, meter reading history, meter test results, billing calculations, and billing summary reports. The enQuesta system (1) was developed by Systems & Software (S&S), (2) is operated by Chattanooga, and (3) runs on computers that are owned and operated by Chattanooga. All other accounting and finance responsibilities are handled by Chattanooga's Board of Directors, President and Chief Executive Officer, and executive management team who provide oversight and perform the daily activities. Chattanooga also operates fiber optic businesses providing telecommunications, internet, and television.

<sup>1</sup> This customer count excludes those customers who have Outdoor Lighting accounts with Chattanooga as well as accounts for other services. At June 30, 2008, there were 10,260 of these customers. The kilowatt hours sold include all kilowatt hours for all accounts.

## **OBJECTIVE, SCOPE, AND METHODOLOGY**

This audit was initiated as a part of our annual workplan. The objective was to determine compliance with key provisions of the power contract between TVA and Chattanooga including:

- Proper reporting of electric sales by customer class to facilitate proper revenue recognition and billing by TVA.
- Nondiscrimination in providing power to members of the same rate class.
- Use of revenues, including any surplus, for approved purposes, such as:
  - Operating expenses
  - Debt service
  - Tax equivalent payments
  - Reasonable reserves for renewals, replacements, and contingencies

To achieve our objective, we:

- Reviewed Statement on Auditing Standard 70 work performed by an external audit organization related to procedures and controls in place to ensure complete and accurate invoicing of payments to TVA.
- Obtained Chattanooga large customer electric sales statistics reported to TVA for the audit period. The information was not complete because TVA does not obtain rate usage and demand information from distributors for any customers classified below the General Power Rate – Schedule GSA Part 2.<sup>2</sup> We used the information available to generate reports of exceptions related to classification and metering and conducted further review of documentation and discussed with management.
- Obtained customer data from Chattanooga and performed analyses related to proper classification and conducted further review of documentation and discussed with management.
- Documented and tested the procedures and controls in place to ensure complete and accurate invoicing of payments to TVA.

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<sup>2</sup> Under the General Power Rate – Schedule GSA between Chattanooga and TVA, customers are classified based on the following requirements:

- GSA Part 1 – If (a) the higher of (i) the customer's currently effective contract demand, if any, or (ii) its highest billing demand during the latest 12-month period is not more than 50 kW and (b) the customer's monthly energy takings for any month during such period do not exceed 15,000 kWh.
- GSA Part 2 – If (a) the higher of (i) the customer's currently effective contract demand or (ii) its highest billing demand during the latest 12-month period is greater than 50 kW but not more than 1,000 kW or (b) the customer's billing demand is less than 50 kW and its energy takings for any month during such period exceed 15,000 kWh.
- GSA Part 3 – If the higher of (a) the customer's currently effective contract demand or (b) its highest billing demand during the latest 12-month period is greater than 1,000 kW.

- Determined through inquiry and review of documentation whether Chattanooga had any nonelectric, system-related business interests supported by electric system funds.
- Reviewed disbursements to determine if electric system funds were used for any items not allowed under the TVA power contract.
- Reviewed methodology for allocations between electric and nonelectric lines of business for reasonableness and consistency of application.
- Reviewed cash and cash equivalents in relation to planned capital expenditures and other business uses of cash.
- Used nonstatistical sampling methods as needed to perform the tests above.

The scope of the review was for the period July 2006 through June 2008. Fieldwork was conducted October 2009 through March 2010. This performance audit was conducted in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. In performing this audit, nothing came to our attention that indicated noncompliance with applicable laws and regulations.

## **FINDINGS**

Our review of Chattanooga found issues involving customer classification and metering that could impact (1) the proper reporting of electric sales and (2) nondiscrimination in providing power to members of the same rate class. In addition, we found Chattanooga had more than enough cash on hand to cover planned capital projects and provide a cash reserve of about 13 percent. While TVA has established guidelines to determine if a distributor has adequate cash reserves (cash ratio<sup>3</sup> of 5 to 8 percent), TVA has not established guidelines to determine if a distributor's cash reserves are excessive.<sup>4</sup>

<sup>3</sup> TVA reviews the cash ratios of distributors as part of its regulatory rate review function. Cash ratio is calculated as follows:

$$\frac{\text{Cash} + \text{Cash Equivalents}}{\text{Total Variable Expenses (Operations and Maintenance + Purchased Power)}}$$

<sup>4</sup> In separate reports issued regarding other distributors in May 2009, we recommended TVA develop criteria to be used in determining whether a distributor's cash reserves are excessive and incorporate the criteria into the rate setting process. TVA management agreed and will make recommendations to the TVA Board that additional financial metrics be employed for purposes of administering the resale rate provisions in Section 5 of the wholesale power contracts. The need to consider cash reserves will be included in TVA management's recommendations to the Board. A change in the current guidelines to include these additional financial metrics requires Board action. Target completion date is December 2010.

We also found improvements were needed to (1) comply with contract provisions regarding the establishment of written contracts with customers, and (2) improve Chattanooga's internal controls related to monitoring of data changes. Finally, we identified certain opportunities to enhance TVA oversight of the distributors.

## **PROPER REPORTING OF ELECTRIC SALES AND NONDISCRIMINATION IN PROVIDING POWER TO MEMBERS OF THE SAME RATE CLASS**

As discussed below, we identified customer classification and metering issues that could impact the proper reporting of electric sales. In addition, these issues impact the ability to ensure nondiscrimination in providing power to members of the same rate class.<sup>5</sup> We were unable to estimate the monetary effect of these issues because we did not have sufficient information available. Correcting customer classification and metering issues is important to ensure all customers are placed in the correct rate classification and charged the same rate as other customers with similar circumstances.

### **Customer Classification Issues**

We reviewed a listing of all residential customers provided by Chattanooga for account names with characteristics that could indicate misclassification. We noted several hundred accounts with names that included "LLC," "Church," "CH," "Co.," "Inc.," "Partnership," etc., that could indicate the account should be classified as commercial rather than residential. Many of these account names appeared to be related to apartment complexes, construction companies, banks, or property management companies indicating that the account was connected with a premises used as a residence and were not chosen for further review because Chattanooga personnel informed us their policy was, if a premises is used as a single residential dwelling, whether occupied or not, it is classified as residential.<sup>6</sup> Taking this policy into consideration, we selected a judgmental sample of 33 customer accounts and found 12 accounts were incorrectly classified. Specifically, we found these 12 customer accounts were commercial businesses. According to Chattanooga personnel, these accounts have been or are in the process of being reclassified.

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<sup>5</sup> Section 5 Resale Rates subsection (a) of the power contract between TVA and Chattanooga states, "power purchased hereunder shall be sold and distributed to the ultimate consumer without discrimination among consumers of the same class and that no discriminatory rate, rebate, or other special concession will be made or given to any consumer, directly or indirectly."

<sup>6</sup> The Availability Section of the Electric Power Board of Chattanooga Residential Rate – Schedule RS states, "This rate shall apply only to electric service to a single-family dwelling (including its appurtenances if served through the same meter), where the major use of electricity is for domestic purposes such as lighting, household appliances, and the personal comfort and convenience of those residing therein."

## Metering Issue

In addition to the customer classification issues, our review of large customer data reported to TVA noted an issue related to metering of customers at Chattanooga. We found 31 customers classified as GSA Part 2 had energy usage in excess of 25,000 kilowatt hours (kWh) but were not measured for demand.<sup>7</sup> Under Part 2 of the GSA schedule and the Wholesale Power Rate – Schedule WS with TVA, there would be no effect on the revenues for TVA or the distributor unless customer demand exceeded 50 kW. Without demand meters in place or evidence indicating other circumstances exist that would prevent a customer from exceeding demand of 50 kW, we could not determine if any of these customers would have exceeded 50 kW.<sup>8</sup> Therefore, we were unable to estimate the monetary effect of this issue. Chattanooga personnel stated the decision to install a demand meter was handled on a case-by-case basis based on the billing system edit criteria and the periodic cycle testing of the metering sites. However, no documentation of evaluations was available for the 31 customers identified with energy usage in excess of 25,000 kWh. During our fieldwork, Chattanooga personnel stated a process was recently put in place to (1) identify customers with demand in excess of 25,000 kWh and (2) perform a review to determine if a demand meter is necessary. Additionally, Chattanooga personnel stated with the planned rollout of an Advanced Meter Infrastructure over the next two years, all commercial meters will measure demand regardless of the customer's rate classification.

## USE OF ELECTRIC SYSTEM REVENUES

Under the TVA power contract, approved uses of revenues from electric system operations, including any surplus, are (1) operating expenses, (2) debt service, (3) tax equivalent payments, and (4) reasonable reserves for renewals, replacements, and contingencies. While TVA has established guidelines to determine if a distributor has adequate cash reserves (cash ratio of 5 to 8 percent), TVA has not established guidelines to determine if a distributor's cash reserves are excessive.

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<sup>7</sup> Demand is a measure of the rate at which energy is consumed. The demand an electric company must supply varies with the time of day, day of the week, and the time of year. Peak demand seldom occurs for more than a few hours or fractions of hours each month or year, but electric companies must maintain sufficient generating and transmission capacity to supply the peak demand. Demand charges represent the high costs electric companies pay for generating and transmission capacity that sits idle most of the time. Demand charges are based on the amount of energy consumed in a specified period of time known as a demand interval. Demand intervals are usually 15 or 30 minutes. (Engineering Tech Tips, December 2000, Dave Diezinger, Project Leader, United States Department of Agriculture Forest Service, Technology & Development Program, <http://www.fs.fed.us/eng/pubs/htmlpubs/htm00712373/index.htm>.) For TVA distributors, the commercial and manufacturer Schedules of Rates and Charges direct that metered demand be calculated as “the highest average during any 30-consecutive-minute period of the month of the load metered in kW.”

<sup>8</sup> In response to a finding in a previous report, TVA issued guidance to distributors in February 2010 on how to evaluate the installation of a demand meter once a customer's monthly usage exceeds 25,000 kWh since it is probable such a customer would meet the 50 kW threshold for demand charges for GSA Part 2 customers. TVA further instructed, for any distributor evaluation that indicates no demand meter is needed, the evaluation be documented and maintained on file indicating the basis for the conclusions reached.

We found Chattanooga had more than enough cash on hand to cover planned capital projects and provide a cash reserve. As of June 30, 2008, Chattanooga reported about \$121 million in its cash and cash equivalent accounts, and the cash reserve after actual FY 2009 capital expenditures was about 13 percent.

Table 2 shows information about plans for major capital expenditures obtained from Chattanooga.

### Chattanooga's FY 2009 Capital Expenditures

Capital Expenditure Plans	Project Cost
Smart Grid Network	\$26,421,000
Optical Fiber	26,040,183
New Business	7,345,000
Purchase of Meters and Accessories	6,786,416
Business Process Automation	5,067,880
Overhead Line Extensions for Improvements	2,941,600
Purchase of UG Distribution Transformers	2,541,490
Substation Additions and Improvements	2,460,000
Distribution Building Additions and Improvements	2,276,000
Purchase of OHL Distribution Transformers	1,235,050
Purchase of Automotive Equipment	1,160,520
Street Lighting	790,000
46 KV Overhead Lines	746,000
Underground Line Extensions for Improvements	490,000
Relocations for Streets and Highways	350,000
Demand Side Management	324,000
Purchase of Major Substation Equipment	300,000
Office Center Additions and Improvements	276,000
Purchase of Service Equipment, Small Tools, Lab Equipment	273,000
Purchase of Office Furniture and Equipment	50,000
<b>Total Actual Capital Expenditures (Excluding Overheads)</b>	<b>\$87,874,139</b>

Table 2

When compared to Chattanooga's actual capital expenditures for FY 2009, the balance in Chattanooga's cash accounts was enough to pay for these items and leave about \$56.5 million as a reserve, as shown in Table 3. Table 3 also shows Chattanooga's cash ratio percentage was about 28.5 percent before accounting for actual FY 2009 capital expenditures and about 13 percent after accounting for them.

### Chattanooga's Cash Accounts Compared to FY 2009 Capital Expenditures

	Cash and Cash Equivalents	Actual FY 2009 Capital Expenditures	Reserve After FY 2009 Actual Capital Expenditures
<b>FY 2008</b>	\$121,201,860	\$64,664,000	\$56,537,860
<b>Cash Ratio Percentage</b>	28.47%		13.28%

Table 3

According to TVA records, over the past five years Chattanooga was approved for a rate increase in July 2007. Table 4 shows the rate increase received by Chattanooga and the cash position and cash ratio at June 30 prior to the effective date of the rate increase.

### Chattanooga's Rate Increases, Cash Position, and Cash Ratio

Cash on Hand Equivalent to an 8% Cash Ratio	Cash and Cash Equivalents <sup>9</sup> and Cash Ratio	Rate Increase <sup>10</sup>		
		Additional Revenue	Percent	Effective Date
\$32,017,130	\$62,930,421 (CR – 15.72%)	\$16,194,000	4.02%	7/1/2007

Table 4

Discussions with Chattanooga management indicated their operating philosophy was to manage debt so existing customers are not paying for benefits to future customers.

## CONTRACT COMPLIANCE ISSUE

We noted one area where Chattanooga was not meeting the requirements of the power contract with TVA. The GSA schedule from TVA requires all customers who exceed 50 kW per month to sign a formal contract. However, TVA management, in response to previous reports, indicated the threshold of 50 kW for requiring customer contracts was too low. TVA management will recommend to the Board that a new and higher threshold be established as part of the rate change process with the distributors. In further discussions with TVA personnel, the proposed threshold for requiring a contract is 1 megawatt (MW).<sup>11</sup> We found three Chattanooga customers with metered demand greater than 1 MW without a contract. Each customer contract includes a contract demand that is used in placing the customer in the correct classification. Contract demand is also used in calculating the customer's billed demand and minimum bill.

<sup>9</sup> The cash and cash equivalents and cash ratio were computed based on information from Chattanooga's annual report as of June 30 prior to the effective date of the rate increase.

<sup>10</sup> These are the rate increases requested by and approved for the distributor. These increases do not include any rate increases or decreases made by TVA, including fuel cost adjustments, which were passed through by the distributor to the customer.

<sup>11</sup> When the rate change is put into effect, all retail customers above the new threshold will be expected to have executed contracts. Target completion date will coincide with the rate change efforts that are currently under way with the distributors and is expected to be in place by October 2010.

## DISTRIBUTOR INTERNAL CONTROL ISSUE

We noted an area where Chattanooga's internal controls over the generation of Schedule 1 could be strengthened to improve completeness, accuracy, and validity of the billing data. Specifically, we found the generation of a report (or system-generated notifications) identifying manual changes to key fields in the system's customer master file on all accounts and the subsequent review by management would strengthen Chattanooga's controls. Chattanooga was logging changes to key fields in the customer master file, which includes customer classifications and applicable industry codes. However, we found through discussions with Chattanooga personnel that a report is not generated and sent to management for review that shows the changes made in the system. We did note the changes were identified on screens when individual customer accounts were viewed, but only changes to the specific account are visible. The generation of a report (or system-generated notifications) identifying manual changes to key fields in the system's customer master file on all accounts and the subsequent review by management would allow Chattanooga management to identify any changes made without the proper justification or approval.

## TVA OVERSIGHT OPPORTUNITIES

We found opportunities to enhance TVA's oversight of this distributor. We noted issues for this distributor were also reported in previous Office of the Inspector General (OIG) distributor reports. Specifically we noted TVA has not:

- Provided definitive guidance for distributors on what constitutes prudent expenditures.
- Performed a joint cost study. TVA personnel stated a joint cost study was not performed because Chattanooga did not have additional business divisions until venturing into broadband in 2008. However, we noted Chattanooga's telecommunications division has been in place since 1999. According to the TVA Accountant's Reference Manual, cost allocations are to be formally reviewed by the distributor and TVA every three to four years or when major changes occur that affect joint operations.
- Defined criteria for evaluating when a distributor's cash is excessive.

In response to the previous reports, TVA agreed to take corrective actions on these issues. Full discussion of these issues and TVA's planned actions can be found in prior OIG distributor reports on our Web site, [www.oig.tva.gov](http://www.oig.tva.gov).

## **RECOMMENDATIONS**

We recommend the Group President, Strategy and External Relations, work with Chattanooga to improve compliance with the contract and/or strengthen internal controls. Specifically, Chattanooga should:

1. Develop procedures to identify customers that are misclassified as residential when the location should be classified as commercial.

**Chattanooga's Response** – Chattanooga has controls in place to detect possible misclassifications that are performed during each billing cycle. Numerous edits exist in the system and produce reports for accounts to be reviewed prior to the account being billed. These reports are reviewed by the Billing Department, and actions are taken to correct the accounts if it is determined an error exists. An additional quarterly audit test will be implemented, performed by the Chattanooga Internal Audit staff, to test for misclassifications. Any potential discrepancies identified during the audit test will be submitted to the Billing Department for further review and correction as necessary. The first audit test will be performed for the quarter ending September 30, 2010. See Appendix A for Chattanooga's complete response.

**TVA Management's Comments** – TVA agreed with the recommendation and noted Chattanooga is working with the billing agency to resolve classification and billing issues. See Appendix B for TVA's complete response.

**Auditor's Response** – The OIG concurs with the planned actions.

We amended the Customer Classification Issues section of this report to provide additional information on our review of residential customers.

2. Obtain contracts for all customers with demand of 1 MW or more.

**Chattanooga's Response** – The customers identified as having a demand of 1 MW did not consistently have a demand of 1 MW or more. One customer exceeded the threshold for one month out of the two-year audit period, one customer exceeded the threshold for two months out of the two-year period, and the other customer exceeded the threshold four months out of the two-year period. Chattanooga has contracts on file for our customers whose demand exceeds 1 MW consistently on a monthly basis. We will implement a quarterly review of customers with demand of 1 MW or more and determine if a contract is on file and take corrective actions as necessary. The first review will be performed for the quarter ending September 30, 2010. See Appendix A for Chattanooga's complete response.

**TVA Management's Comments** – TVA agreed with the recommendation and noted the current contract requirement under the standard Schedule of Rates and Charges to wholesale contracts with distributors requires retail contracts

be executed with all customers whose contract demand exceeds 50 kW. TVA management plans to recommend to the Board that the contract demand threshold for the contract requirement be set at 1 MW and be implemented through the rate change process. The target completion date will coincide with the rate change efforts that are currently under way with the distributors. This change is expected to be in place by April 2012. See Appendix B for TVA's complete response.

**Auditor's Response** – The OIG concurs with the planned actions.

3. Work with S&S to generate a report or notifications to management when manual changes are made to key fields within the master file of the enQuesta system.

**Chattanooga's Response** – Chattanooga has restricted access to a limited number of individuals to make changes to the master file. Management, supervisors, and employees selected by management based on their experience are the only individuals authorized to make changes to the master file data, which minimizes the risk of a material misstatement. See Appendix A for Chattanooga's complete response.

**TVA Management's Comments** – TVA management noted they feel that generating such a report may result in an improvement to the power distributor's system; however, the Power Contract does not require such a report. Therefore, TVA does not plan to take any action on this. See Appendix B for TVA's complete response.

**Auditor's Response** – The OIG maintains that generation and review of a report of manual changes would result in improved internal controls over the distributor's billing system.

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July 15, 2010

Mr. Robert E. Martin, Assistant Inspector General (Audits and Inspections)  
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Tennessee Valley Authority  
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Re: Management's Response

Dear Mr. Martin:

The following is management's response to the specific findings in the Distributor Review of the City of Chattanooga Electric Power Board.

- 1) *Finding: Develop procedures to identify customers that are misclassified as residential when the location should be classified as commercial.*

Response: EPB has controls in place to detect possible misclassifications that are performed during each billing cycle. Numerous edits exist in the system and produce reports for accounts to be reviewed prior to the account being billed. These reports are reviewed by the Billing Department and actions are taken to correct the accounts if it is determined an error exists. An additional quarterly audit test will be implemented, performed by EPB Internal Audit staff, to test for misclassifications. Any potential discrepancies identified during the audit test will be submitted to the Billing Department for further review and correction as necessary. The first audit test will be performed for the quarter ending 9/30/10.

- 2) *Finding: Obtain contracts for all customers with demand of 1MW or more.*

Response: The customers identified as having a demand of 1MW did not consistently have a demand of 1MW or more. One customer exceeded the threshold for 1 month out of the 2 year audit period, one customer exceeded the threshold for 2 months out of the 2 year period, and the other customer exceeded the threshold 4 months out of the 2 year period. EPB has contracts on file for our customers whose demand exceeds 1MW consistently on a monthly basis. We will implement a quarterly review of customers with demand of 1MW or more and determine if a contract is on file and take corrective actions as necessary. The first review will be performed for the quarter ending 9/30/10.

- 3) *Finding: Work with S&S to generate a report or notifications to management when manual changes are made to key fields within the master file of the enQuesta system.*

Response: EPB has restricted access to a limited number of individuals to make changes to the master file. Management, supervisors, and employees selected by management based on their experience are the only individuals authorized to make changes to the master file data, which minimizes the risk of a material misstatement.

We appreciate the courtesies and professionalism of your staff during the audit. If additional information is needed, please feel free to contact me.

Sincerely,



Gregory S. Eaves  
Executive Vice President and CFO

July 13, 2010

Robert E. Martin, ET 3C-K

RESPONSE TO DRAFT AUDIT REPORT 2009-12593 – DISTRIBUTOR REVIEW OF  
CITY OF CHATTANOOGA ELECTRIC POWER BOARD

This is in response to your memorandum dated June 15, 2010.

Agreement or disagreement with all facts, conclusions, and recommendations are stated first, followed by the actions planned or taken and completion dates for each of the recommendations.

A. Recommendations

1. Develop procedures to identify customers that are misclassified as residential when the location should be classified as commercial.
  - o TVA management agrees that electric service should be provided in accordance with the availability provisions of the rate schedules.
  - o Actions taken or planned and completion date: The power distributor is working with their billing provider, Systems and Software, to resolve these classifications issues. The planned completion date is June 2011.
2. Obtain contracts for all customers with demand of 1 megawatt (MW) or more.
  - o TVA management agrees that the resale schedules of the standard Schedule of Rates and Charges to wholesale contracts with distributors require that retail contracts be executed with all customers whose contract demand exceeds 50 kilowatts (kW). TVA management finds that the contract threshold of 50 kW was established in 1963, and the relative customer size in 2010 versus 1963 is very different. Likewise, requiring contracts with small commercial customers is a time-consuming and difficult task which may provide little benefit for distributors or the TVA system. TVA management will recommend to the Board that a new and higher threshold be established as part of the rate change process with distributors. The current threshold proposed is demand in excess of 1 MW. When the rate change is put into effect, all retail customers above the new threshold will be expected to have executed contracts.
  - o Actions taken or planned, and completion dates: TVA management plans to recommend to the Board that the contract demand threshold for the contract requirement be set at 1 MW and be implemented through the rate change process. Distributors will be required to have executed retail contracts for customers with contract demands above the new threshold. The target completion date will coincide with the rate change efforts that are currently underway with the distributors. This change is expected to be in place by April 2012.

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3. Work with Systems & Software to generate a report or notifications to management when manual changes are made to key fields within the master file of the enQuesta system.
  - o While TVA management feels that generating such a report may result in an improvement to the power distributor's system, the Power Contract does not require such a report.
  - o Actions taken or planned, and completion dates: TVA does not plan to take any action on this.

B. TVA oversight opportunities that have also been the subject of prior OIG reports

1. TVA has not provided definitive guidance for distributors on what constitutes prudent expenditures.
  - o TVA management looks at distributors' expenditures in the context of the use of revenues provisions in Section 6 of the wholesale power contract which lists the specific purposes for which the revenues from electric operations can be used. There are no prudence requirements as such in section 6.
  - o Under 6(a), the distributor agrees to use "gross revenues" for the following purposes:
    1. "Current electric system operating expenses, including salaries, wages, cost of materials and supplies, power at wholesale, and insurance;"
    2. "Current payments of interest on System Indebtedness, and the payment of principal amounts, including sinking fund payments, when due;"
    3. "From any remaining revenues, reasonable reserves for renewals, replacements, and contingencies; and cash working capital adequate to cover operating expenses for a reasonable number of weeks;"

And, in municipal contracts only,

  4. "From any revenues then remaining, tax equivalent payments into [the municipality's] general funds, as more particularly provided in section 2 of the Schedule of Terms and Conditions" to the power contract.
  - o Under 6(b), all surplus revenues remaining after gross revenues have been applied as provided for in 6(a) are to "be considered surplus revenues and may be used for new electric system construction or the retirement of System Indebtedness prior to maturity; provided; however, that resale rates and charges shall be reduced from time to time to the lowest practicable levels considering such factors as future circumstances affecting the probable level of earnings, the need or desirability of financing a reasonable share of new construction from such surplus revenues, and fluctuations in debt service requirements."

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- Other than the policy set forth in the above-quoted contract language approved by the Board, no guidelines exist that provide an exhaustive list of permitted operating expenditures under 6(a)(1). TVA management is exploring with the TVA Board the extent to which more definitive guidance is feasible and consistent with the contract provisions in Section 6(a)(1) and whether the TVA Board desires to otherwise seek to further regulate permitted expenditures.
  - In addition, TVA management is exploring with the TVA Board the extent to which it is feasible and consistent with the contract provisions in Section 6(a)(3) to provide more definitive guidance on what constitutes reasonable reserves and a reasonable number of weeks of cash working capital.
  - Actions taken or planned, and completion dates: As noted above, TVA management will continue to consult with the Board on the plausibility of developing and implementing more definitive guidance on permitted expenditures under Section 6 of the wholesale contract.
2. TVA has not performed a joint cost study.
- TVA recognizes that these are important studies and help allocate costs correctly. However, it is very labor intensive and TVA is currently addressing the resources and training required for the field accountants to perform these studies. These studies will need to be performed on most of TVA's municipal distributors.
  - Actions planned or taken, and completion dates: TVA's Field Accountants will complete this study within the next year. Target completion date May 2011.
3. TVA has not defined criteria for evaluating when a distributor's cash reserves are excessive.
- See the response in 1 above. In addition, TVA management agrees that it is appropriate for distributor cash reserves to be considered as part of the process under which TVA and distributors are to agree upon increases or decreases in the distributor's resale rates as provided for under Section 5 in the wholesale power contract. Under guidelines approved by the Board in 1992, TVA calculates a guideline revenue amount that governs resale rate increases to which TVA will automatically agree without further review. TVA management is making recommendations to the TVA Board that additional financial metrics, including those based on cash reserves, should be considered in determining when agreement upon a resale rate increase or decrease is appropriate.

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- Actions taken or planned, and completion dates: TVA management is making recommendations to the TVA Board that additional financial metrics should be employed for purposes of administering the resale rate provisions in Section 5 of the wholesale power contracts. The need to consider cash reserves will be included in TVA management's recommendations to the Board. A change in the current guidelines to include these additional financial metrics requires Board action.

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