



**Memorandum from the Office of the Inspector General**

July 14, 2011

Kimberly S. Greene, WT 7B-K

**REQUEST FOR FINAL ACTION – AUDIT 2009-12595 – DISTRIBUTOR AUDIT OF THE CITY OF OAK RIDGE**

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 me or Richard C. Underwood, Acting Director, Distributor Audits, at (423) 785-4824. We appreciate the courtesy and cooperation received from your staff during the audit.

*David P. Whelan*

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

ALW:HAC  
Attachment  
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OIG File No. 2009-12595



Office of the Inspector General

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## *Audit Report*

To the Group President,  
Strategy and External  
Relations

# **DISTRIBUTOR AUDIT OF THE CITY OF OAK RIDGE**

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Audit Team  
Andrea L. Williams  
Jennifer R. Torregiano

Audit 2009-12595  
July 14, 2011

## **ACRONYMS AND ABBREVIATIONS**

DAR	Distributor Annual Report
FERC	Federal Energy Regulatory Commission
FY	Fiscal Year
kW	Kilowatt
kWh	Kilowatt Hours
MW	Megawatt
OIG	Office of the Inspector General
TVA	Tennessee Valley Authority
USofA	Uniform System of Accounts

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- A. OBJECTIVE, SCOPE, AND METHODOLOGY
- B. LETTER DATED JUNE 21, 2011, FROM MARK S. WATSON TO ROBERT E. MARTIN
- C. MEMORANDUM DATED JULY 1, 2011, FROM KIMBERLY S. GREENE TO ROBERT E. MARTIN



# Audit 2009-12595 – Distributor Audit of the City of Oak Ridge

## EXECUTIVE SUMMARY

### Why the OIG Did This Audit

As part of our annual audit plan, the OIG (Office of the Inspector General) audited the electric system of the city of Oak Ridge, Tennessee, for compliance with the power contract with the Tennessee Valley Authority (TVA) for the audit period July 2007 through June 2009. Key contract provisions included (1) proper reporting of electric sales, (2) nondiscrimination in providing power, and (3) use of electric revenue for approved purposes. For fiscal year (FY) 2009, Oak Ridge provided power to approximately 16,000 customers that resulted in electric sales revenue of approximately \$52 million. The Oak Ridge electric system is operated as part of the city municipal government rather than as a separate entity.

### What the OIG Found

Substantial improvements are necessary for Oak Ridge to comply with certain power contract provisions pertaining to:

- **Electric System Revenues** – Although funds were disbursed for electric system purposes, Oak Ridge did not make expenditures in the proper order required by Section 6 of the power contract. Specifically, Oak Ridge (1) had not paid \$1,581,486 of electric operating obligations incurred, (2) made payments in lieu of taxes of \$3,089,000 during the audit period before (a) all operating obligations were paid and (b) reasonable reserves were in place, and (3) did not have reasonable reserves prior to making payments in lieu of taxes. At June 30, 2009, Oak Ridge had a 0.89 percent cash ratio before considering planned FY 2010 capital expenditures and a negative 3.6 percent cash ratio after considering planned FY 2010 capital expenditures.
- **Financial Reporting** – Oak Ridge (1) did not use the Federal Energy Regulatory Commission Uniform System of Accounts, (2) incorrectly reported items to TVA in the Distributor Annual Report (DAR), and (3) incorrectly accounted for payable(s) to the city general fund.

Improvements should also be implemented pertaining to:

- **Customer Classification** – We identified three customer classification issues that could impact the proper reporting to TVA and/or nondiscrimination power contract provisions. The issues were (1) incorrect use of contract demand in the billing system, (2) commercial accounts incorrectly classified as residential, and (3) rounding of meter reading data. We were unable to estimate the monetary effect of all the issues we identified because in some instances information was not available. However, for those instances where information was available, the monetary impact would not be significant to Oak Ridge or TVA.



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## EXECUTIVE SUMMARY

- **Other Issues** – We identified five additional areas where Oak Ridge (1) was not meeting other power contract provisions or (2) could strengthen its internal controls. Other power contract compliance issues we identified were: (1) meter testing results were accepted although they fell outside the accuracy standards of the power contract, (2) costs were not allocated according to the approved TVA joint cost study, and (3) required customer contracts were not on file. Oak Ridge’s internal controls could be strengthened related to (1) completeness of customer contract documentation and (2) accuracy of contract demand in the billing system.

We also identified three areas where TVA’s oversight of distributors should be enhanced. Two are new oversight issues addressing (1) the process for verifying accuracy of DAR information and (2) meter accuracy testing standards. The remaining issue, regarding the lack of a current joint cost study, has been reported in previous OIG distributor audits. TVA has agreed to take corrective action on this issue.

### What the OIG Recommends

We recommend the Group President, Strategy and External Relations, work with Oak Ridge to (1) comply with power contract provisions, (2) remediate classification issues, and (3) strengthen internal controls.

In addition, the Group President, Strategy and External Relations, should (1) implement process(es) for verifying the accuracy of DAR information to adequately identify and address reporting errors and (2) revise TVA Comprehensive Services meter accuracy testing standards to comply with the standards placed on the distributor in the power contract.

### Oak Ridge and TVA Management’s Comments

Oak Ridge and TVA management agreed with 11 of our 17 recommendations and have taken or are taking actions to address the recommendations. The target completion dates for actions related to correcting these recommendation ranges from August 2011 to December 2012. In addition, either TVA and/or Oak Ridge have already taken action or plan to take action to address another 5 of our recommendations even though both parties did not agree with each recommendation. Oak Ridge and TVA disagreed with the remaining recommendation and did not intend on taking action to address the issue. See Appendix B for Oak Ridge’s complete response and Appendix C for TVA’s complete response.

### Auditor’s Response

Although the OIG, Oak Ridge, and TVA management did not similarly interpret the facts on which our findings and recommendations are based, the OIG concurs with the actions taken and/or planned by Oak Ridge and/or TVA to correct the identified issues for 16 of



## Audit 2009-12595 – Distributor Audit of the City of Oak Ridge

### EXECUTIVE SUMMARY

the 17 recommendations. The recommendation that Oak Ridge and TVA management do not intend to take corrective action on relates to replacing meters that were not accurate within 2 percent. However, TVA management offers a new determination for accuracy of meters tested in the field versus meters tested under more accurate laboratory conditions in their comments to another recommendation in this report. The OIG would suggest that TVA communicate this new determination to all distributors.

## **BACKGROUND**

The city of Oak Ridge<sup>1</sup> is a distributor for Tennessee Valley Authority (TVA) power based in Oak Ridge, Tennessee, with revenues from electric sales of approximately \$52 million in fiscal year (FY) 2009. Prior to April 1, 2011, TVA relied 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 Oak Ridge as of June 2009.

**Oak Ridge's Customer Mix as of June 2009**

<b>Customer Classification</b>	<b>Number of Customers</b>	<b>Revenue</b>	<b>Kilowatt Hours Sold</b>
Residential	13,608	\$17,451,002	168,807,046
General Power – 50 Kilowatt (kW) and Under (Commercial)	1,840	4,309,974	37,383,791
General Power – Over 50 kW (Commercial or Manufacturing)	354	29,376,526	309,063,323
Street and Athletic	61	1,025,456	5,311,401
Outdoor Lighting <sup>2</sup>	0	206,309	1,510,065
Unbilled Revenue		(604,269) <sup>3</sup>	
<b>Total</b>	<b>15,863</b>	<b>\$51,764,998</b>	<b>522,075,626</b>

**Table 1**

Oak Ridge is operated as part of the city municipal government rather than as a separate entity. The electric system operations are divided between the city's Administrative Services Department and the Electric Department. The Administrative Services Department handles the accounting and finance responsibilities in addition to overseeing residential services. The Electric Department handles commercial services as well as system-wide meter reading and maintenance of the transmission system. The city's Finance Director (member of the Administrative Services Department) and the Electric Department Director manage the daily activities of their respective departments. The City Council, Mayor, and City Manager provide oversight of both departments.

<sup>1</sup> The wholesale power contract is between "Oak Ridge, Tennessee," and TVA. The city of Oak Ridge provides various municipal services, including the electric system function. We use "Oak Ridge" to refer to this distributor (Administrative Services Department and Electric Department) in this report.

<sup>2</sup> The "Number of Customers" represents those customers who only have Outdoor Lighting accounts with Oak Ridge at June 30, 2009. In addition, another 532 customers had Outdoor Lighting accounts as well as accounts for other services. However, the totals for "Revenue" and "Kilowatt Hours Sold" include both categories of Outdoor Lighting customers.

<sup>3</sup> This is the net of current year unbilled revenue and the prior year unbilled revenue that is included in the customer classification amounts on the lines above.



All distributors are required to establish control processes over customer setup, rate application, and measurement of usage to ensure accurate and complete reporting to TVA. Oak Ridge utilizes its own in-house billing system to establish and set up new customers, input customer meter information, perform the monthly billing process, and execute customer account maintenance.

## **FINDINGS**

Substantial improvements are necessary for Oak Ridge to comply with certain power contract provisions pertaining to:

- Electric system revenues in order for the electric system to operate on a self-supporting and financially sound basis.
- Financial reporting that could impact TVA's analysis of the distributor's financial position and whether rate increases are warranted.

Improvements should also be implemented pertaining to:

- Customer classifications that could impact compliance with the proper reporting of electric sales to TVA and/or nondiscrimination power contract provisions.
- Compliance with other power contract provisions and strengthening internal controls.

We also identified three areas where TVA's oversight of distributors should be enhanced. Two are new oversight issues, and the remaining issue has been reported in previous Office of the Inspector General (OIG) distributor audits. TVA has agreed to take corrective action on this issue.

## **EXPENDITURES OF ELECTRIC SYSTEM REVENUES DID NOT COMPLY WITH CONTRACT**

Section 6 of the power contract states approved uses of revenues from electric system operations, including any surplus, are to be paid in the following order: (1) operating expenses, (2) debt service, (3) reasonable reserves for renewals, replacements, and contingencies, and cash working capital adequate to cover operating expenses for a reasonable number of weeks, (4) tax equivalent payments, and (5) new electric system construction or the retirement of debt prior to maturity. Although funds were disbursed for electric system purposes, Oak Ridge did not make expenditures in the proper order required by Section 6 of the contract. Specifically, Oak Ridge (1) had not paid \$1,581,486 of electric operating obligations incurred, (2) made payments in lieu of taxes of \$3,089,000 during the 24-month audit period before (a) all operating obligations were paid and (b) reasonable reserves were in place, and (3) did not have reasonable reserves prior to making payments in lieu of taxes. As of June 30, 2009, Oak Ridge had a 0.89 percent cash ratio before considering planned FY 2010 capital expenditures and a negative 3.60 percent cash ratio after considering planned FY 2010 capital expenditures.

### **Insufficient Revenues to Support the Electric System**

Our review of the June 30, 2009, electric system trial balance indicated Oak Ridge owed the city general fund \$1,581,486, which exceeds our dollar value threshold for significance. The city general fund is comprised of revenue received by the city for taxes, fees, fines, court costs, and other nonutility income. According to the Finance Director, the city general fund pays city-wide obligations and then charges all the municipal departments an allotted portion of the obligation. The Finance Director indicated Oak Ridge could not pay the amount(s) owed to the city general fund and other operating obligations; therefore, the amount(s) owed to the city general fund were not paid. According to the Finance Director, Oak Ridge has owed the city general fund for over 20 years.

Section 5(c) of the power contract states:

If the rates and charges provided for in said resale schedules do not produce revenues sufficient to provide for the operation and maintenance of the electric system on a self-supporting and financially sound basis, including requirements for interest and principal payments on indebtedness incurred or assumed by Municipality for the acquisition, extension, or improvement of the electric system (hereinafter called "System Indebtedness"), the parties shall agree upon, and Municipality shall put into effect promptly, such changes in rates and charges as will provide the increased revenues necessary to place the system upon a self-supporting and financially sound basis.

Additionally, Section 4 of the power contract states wholesale payments "shall be made solely and exclusively from the revenues of the electric system and shall not be a charge upon Municipality's general funds." Since Oak Ridge has not paid the city general fund for its portion of allocated expenses, it appears some portion of the monthly wholesale payment to TVA was paid using city general funds.

During the exit meeting on March 28, 2011, Oak Ridge informed us the loan to the city general fund was repaid in FY 2010, after \$5 million in Build America Bonds was obtained, and the resale rates were also increased after the audit period.<sup>4</sup> Oak Ridge explained that rather than incur debt at a higher interest rate in FYs 2008 and 2009, the electric system decided to "borrow" from the city general fund, which provided a lower interest rate on the "loan." Oak Ridge also stated borrowing from the city general fund was common for short-term financing and had been utilized for years. Oak Ridge confirmed the borrowed amount was to cover electric system operating obligations so electric system revenues could be used for capital projects. However, by signing the contract, Oak Ridge agreed to use electric system revenues to pay for items in a specific order. As mentioned

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<sup>4</sup> We reviewed the city's FY 2010 combined financial statements and noted \$5 million in bonds was issued to the electric system to be used for capital projects. We also determined Oak Ridge raised resale rates 2.24 percent in October 2010.

above, Section 6(a) of the contract requires revenues to be used as follows: (1) operating expenses, (2) debt service, (3) reasonable reserves for renewals, replacements, and contingencies, and then (4) tax equivalent payments. After all Section 6(a) obligations are met, Section 6(b) of the contract indicates any remaining revenues are considered surplus and may be used for new electric system construction or the retirement of system indebtedness prior to maturity. Therefore, Oak Ridge's practice of borrowing from the city general fund to cover electric system operating obligations does not comply with the contract terms and results in the city general fund subsidizing the electric system.

Tennessee Code Annotated, Title 7, Chapter 34, Part 1, Subpart 15, allows a municipality to subsidize a utility from general funds but only if specifically included in the adopted budget. Oak Ridge's FY 2009 budget did not include financing from the general fund to the electric system.

### **Payments in Lieu of Taxes Made Prior to Satisfying Contract Provisions**

Oak Ridge made payments in lieu of taxes even though all electric operating obligations were not covered by electric system revenues. According to the power contract's Schedule of Terms and Conditions Section 2(c), payments in lieu of taxes:

...shall be made only from current electric system revenues remaining after payment of or making reasonable provision for payment of (i) current operating expenses of the electric system, including without limitation salaries, wages, costs of materials and supplies, cost of power, and insurance; (ii) current payments of interest on electric system indebtedness, and payment of principle thereof, including amortization, reserve and sinking fund payments, when due; and (iii) reasonable reserves for renewals, replacements, and contingencies and for cash working capital.

During our audit period, the payments in lieu of taxes to the city of Oak Ridge, Roane County, and Anderson County totaled \$3,089,000, which exceeds our dollar value threshold for significance.

At the exit meeting on March 28, 2011, Oak Ridge expressed concern about its legal obligations regarding payments in lieu of taxes. Oak Ridge indicated the payments in lieu of taxes were not optional and had to be paid; therefore, they were operating costs. However, according to the contract, payments in lieu of taxes are not considered operating costs and should only be paid after reasonable reserves are accumulated. Additionally, Tennessee Code Annotated, Title 7, Chapter 52, Part 3, Subpart 4, lists the same constraints for payments in lieu of taxes as the contract unless there is a local resolution that requires payments in lieu of taxes to be made. We were not able to locate such a local resolution for Oak Ridge.

### Reasonable Reserves Not Retained Prior to Payments in Lieu of Taxes

Oak Ridge did not have reasonable reserves as required by the contract prior to making payments in lieu of taxes. TVA's guidelines for adequate cash reserves call for a cash ratio of 5 to 8 percent.<sup>5</sup> As of June 30, 2009, Oak Ridge had a 0.89 percent cash ratio before considering planned FY 2010 capital expenditures and a negative 3.60 percent cash ratio after considering planned FY 2010 capital expenditures. Specifically, Oak Ridge had \$413,193 in cash and cash equivalents and \$2,090,000 in planned capital projects for FY 2010 that would result in a negative \$1,676,807 cash balance (see Table 2 below). This amount exceeds our dollar value threshold for significance.

**Oak Ridge's Cash Accounts Compared to Planned Capital Expenditures**

	Cash and Cash Equivalents at June 30, 2009	FY 2010 Planned Capital Expenditures	Reserve After Planned Capital Expenditures
<b>Amount</b>	\$413,193	\$2,090,000	(\$1,676,807)
<b>Cash Ratio Percentage</b>	0.89%		(3.60)%

**Table 2**

According to TVA records, as of our audit period, Oak Ridge was approved for rate increases in 2004, 2005, 2006, and 2008. Table 3 below shows the rate increases received by Oak Ridge and the cash position and cash ratio at June 30 prior to the effective date of the rate change.

**Oak Ridge's Rate Increases, Cash Position, and Cash Ratio**

Cash on Hand Equivalent to an 8% Cash Ratio	Cash and Cash Equivalents <sup>6</sup> and Cash Ratio	Rate Increase <sup>7</sup>		
		Change in Revenue	Percent	Effective Date
\$2,577,242	\$1,937,494 (CR = 6.01%)	\$1,183,899	3.36%	11/1/2004
\$2,489,784	\$1,698,293 (CR=5.46%)	\$353,000	1.04%	10/1/2005
\$2,699,222	\$1,436,696 (CR=4.26%)	\$420,000	1.20%	10/1/2006
\$2,986,288	\$514,407 (CR=1.38%)	\$1,300,000	3.16%	4/1/2008

**Table 3**

<sup>5</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>6</sup> The cash and cash equivalents and cash ratio were computed based on information from Oak Ridge's annual report as of June 30 prior to the effective date of the rate increase.

<sup>7</sup> These are the rate increases enacted by 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.

Discussions with Oak Ridge's Finance Director indicated the electric system's cash reserves were low because in previous years improvements had been made for transmission system reliability. Distributors usually have cash reserves as a hedge against the risks of unforeseen costs from an aging infrastructure (e.g., equipment failure), potential loss of revenue from the economic impact on commercial and industrial customers, and unpredictable weather.

## **FINANCIAL REPORTING DID NOT COMPLY WITH CONTRACT**

We identified three areas where Oak Ridge's financial reporting to TVA did not comply with "Financial and Accounting Policy," Section 1, of the Schedule of Terms and Conditions of the power contract, or generally accepted accounting practices. Specifically, Oak Ridge (1) did not comply with the power contract provisions requiring use of the Federal Energy Regulatory Commission (FERC) Uniform System of Accounts (USofA), (2) incorrectly reported items to TVA in the Distributor Annual Report (DAR), and (3) incorrectly accounted for payable(s) to the city general fund.

### **FERC USofA Not Followed**

According to the power contract's Schedule of Terms and Conditions Section 1(b), Oak Ridge is required to keep the electric system general books of accounts according to the FERC USofA. The FERC USofA provides account structure including a numbering system for accounts and description(s) of charges to be included in each account. In addition, the FERC USofA indicates if a distributor does not use the prescribed account structure, a reconciliation between the account structure in place and the prescribed chart of accounts must be performed and maintained. Oak Ridge was not using the account structure prescribed in the FERC USofA, and no reconciliation of the accounts had been performed, which contributes to the DAR reporting findings described below.

### **Incorrect DAR Reporting**

Distributors are required by the power contract's Schedule of Terms and Conditions Section 1(c) to report financial and statistical information annually to TVA. Distributors report this information in the DAR using the prescribed FERC USofA account structure as described in the Accountants' Reference Manual. The Accountants' Reference Manual provides guidance for distributors on account structure and how to report the various accounts in the DAR. As discussed above, Oak Ridge did not use the prescribed FERC USofA account structure or have the required reconciliation between the prescribed account structure and the account structure in place. We reconciled the account structure used by Oak Ridge to the prescribed FERC USofA account structure. Using the reconciled account structure and the FY 2009 trial balance, we determined the amounts that should have been reported in the Balance Sheet and the Revenue and Expense Statement portions of the FY 2009 DAR. We found Oak Ridge was incorrectly reporting certain assets, liabilities, expenses, and income in the DAR.

Specifically, we found:

- 9 instances where trial balance amounts were reported incorrectly to TVA in the FY 2009 DAR:
  - Amounts owed to the city general fund were subtracted from the line item “Accounts receivable” (“Current and Accrued Assets” section) rather than reported in the line item “Accounts payable” (“Current and Accrued Liabilities” section). The accounts receivable line item had been reduced by the amount owed to the city general fund; therefore, both the total assets and total liabilities reported to TVA were understated by the amount. As previously discussed, the total amount owed to the city general fund as of June 2009 was \$1,581,486, which exceeds our dollar value threshold for significance.
  - Prepayments of \$1.5 million for inventory and supplies were included at the “Materials and supplies” line item rather than the “Prepayments” line item of the “Current and Accrued Assets” section.
  - Cash investments of \$395,350 were included as part of the line item “General cash and temporary investments” (“Current and Accrued Assets” section) rather than in line item “Other investments” (“Other Property and Investments” section).
  - Restricted cash related to required bond reserves of \$139,881 was included as part of the line item “General cash and temporary investments” (“Current and Accrued Assets” section) rather than in the line item “Sinking Funds” (“Other Property and Investments” section).<sup>8</sup>
  - Accounts receivable for other electric-related services of \$120,497, such as pole rental, were included as part of the line item “Other current assets” (“Current and Accrued Assets” section) rather than reported in the line item “Accounts receivable” (“Current and Accrued Assets” section).
  - Accounts for expenses other than operation and maintenance totaling \$104,900 were included as part of “Operating Expense” and “Maintenance Expense” sections.
  - Accounts for expenses other than tax and tax equivalents totaling \$53,825 were included as part of the line item “Tax and tax equivalents” (Other operating expense” section).
  - Other income accounts totaling \$5,275 were not included as part of line item “Other income” (“Income” section).
  - Expense accounts totaling \$164,000 were not included as part of line item “Miscellaneous Income Deductions” (“Income” section).

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<sup>8</sup> We removed the restricted cash amount from the general cash balance to calculate the cash ratios in the “Use of Electric System Revenues” section above.

The overall effect on Oak Ridge's DAR was (1) assets and liabilities were understated, and (2) line item amounts on the Balance Sheet and the Revenue and Expense Statement portions were reported incorrectly. Because TVA uses DAR information to analyze a distributor's financial position and determine whether rate increases are warranted, financial reporting must be accurate.

### **Accounts Payable Not Reported Separately From Accounts Receivable**

Oak Ridge's accounting practices could be improved related to accounting for payables to the city general fund. In addition to incorrectly reporting the amount owed to the city general fund to TVA on the DAR, Oak Ridge also incorrectly recorded the amount owed to the city general fund in the electric system general ledger. Rather than recording the amount owed as a payable due to the city general fund, Oak Ridge subtracted the amount owed from the receivable due from the city general fund. Standard accounting practices separate payables and receivables into individual accounts with payables recorded as a liability and receivables recorded as an asset. As discussed above, current assets and current liabilities were understated to TVA by the balance owed to the city general fund in the electric system general ledger (i.e., \$1,581,486). Recording amounts in the proper accounts and categories in the general ledger ensures the distributor's true financial position is documented.

We noted the FYs 2008 and 2009 audited financial statements contain a payable due to other funds. During the exit meeting on March 28, 2011, the Finance Director stated there is only an asset account to record amounts due to/due from other funds. If the amount is negative at the end of the year, a payable account must be manually created on the financial statements, but a payable is not created in the general ledger.

## **IMPROPER REPORTING OF ELECTRIC SALES AND/OR POTENTIAL DISCRIMINATION IN PROVIDING POWER TO CUSTOMERS**

During our review of Oak Ridge's billing data, we identified three customer classification issues that could impact the (1) proper reporting of electric sales and/or (2) ability to ensure nondiscrimination in providing power to members of the same rate class.<sup>9</sup> The issues were (1) incorrect use of contract demand in the billing system, (2) commercial accounts incorrectly classified as residential, and (3) rounding of meter reading data. We were unable to estimate the monetary effect of all the issues we identified because in some instances information was not available. However, for those instances where information was available, the monetary effect on Oak Ridge and TVA would not be significant. As discussed in detail below, correcting classification issues is

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<sup>9</sup> Section 5 Resale Rates subsection (a) of the power contract between TVA and Oak Ridge dated May 1, 1980, 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."

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

The GSA schedule is divided into three parts – Part 1, Part 2, and Part 3 – based on electric usage and demand.<sup>10</sup> As discussed below, we found a total of (1) 42 out of 3,157 (1.3 percent) GSA Part 2<sup>11</sup> or higher accounts with contract demand and residential accounts were misclassified, and (2) 14 out of 2,395 (0.5 percent) GSA Part 1 accounts that could be potentially misclassified.

#### Misclassifications of GSA Part 2 or Higher Accounts

Specifically, we found:

- 8 out of 48 GSA customer accounts with contract demand (16.7 percent) were misclassified during the audit period. These misclassifications resulted from a programming error in the billing system based on Oak Ridge personnel's misunderstanding of the contract terms. Oak Ridge personnel programmed its billing system to use 30 percent of the contract demand<sup>12</sup> amount to determine the classification of a GSA customer, rather than using the entire contract demand amount. Of these 8 customer accounts:
  - 3 accounts should have been classified as GSA Part 2 rather than GSA Part 1.
  - 5 accounts should have been classified as GSA Part 3 rather than GSA Part 2.

<sup>10</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 Dieziger, 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>11</sup> Under the General Power Rate – Schedule GSA adopted by Oak Ridge, 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.

<sup>12</sup> A customer's contract demand is the amount of power that a customer agrees to pay to have available at all times. Because this refers to power that must be made available, as opposed to energy that can actually be consumed, contract demand is measured in kW, not kWh.



- 34 out of 3,109 customer accounts (1.1 percent) were classified as residential customers instead of GSA schedule customers:
  - 21 customer accounts were group homes or homes used by businesses to house multiple individuals at once. The Residential Rate - Schedule RS13 applies “only to electric service to a single-family dwelling.” According to TVA personnel, a group home is not considered a single-family dwelling; therefore, the RS Schedule does not apply. Group homes should be classified within the appropriate part of GSA schedule based on usage and demand takings.
  - 11 customer accounts were commercial businesses that should be classified as commercial.
  - 1 customer account was for commercial lighting, such as security lighting at an apartment complex, etc., that should be classified as commercial.
  - 1 customer account was for a well pump at a residential location. Schedule RS applies “only to electric service to a single-family dwelling.” Since a well pump is not a single family dwelling, the pump does not qualify for the residential rate.

Oak Ridge reclassified 18 of the 34 customer accounts from residential to commercial (GSA schedule). After the exit meeting on March 28, 2011, Oak Ridge indicated the remaining 16 accounts were correctly classified as residential. However, we determined the 16 accounts were group homes, half-way houses, or mental health centers, which do not qualify as single-family dwellings, and therefore they should be reclassified to commercial.

#### Potential Misclassifications of GSA Part 1 Accounts

Oak Ridge collects fractional meter readings but rounds the meter data to whole numbers when uploading the meter data to the billing system. We identified 14 out of 2,395 (0.5 percent) GSA Part 1 customer accounts with exactly 50 kW of demand. Because Oak Ridge rounds meter data, these customers could have had demand readings between 49.499 kW and 50.000 kW, which would result in a classification of GSA Part 1, or 50.001 kW and 50.499 kW, which would result in a classification of GSA Part 2. GSA Part 2 customers, unlike GSA Part 1 customers, are charged on wholesale and retail billings for demand takings greater than 50 kW. In addition, GSA Part 2 customers are charged a (1) reduced rate for energy takings greater than 15,000 kWh on wholesale and retail billings as well as (2) higher retail customer charge. As a result of the misclassifications, wholesale and end-use customer billing amounts may have been over or understated.

<sup>13</sup> Under the Residential Rate – Schedule RS adopted by Oak Ridge, customers are classified based on the following requirement: “This rate shall only apply 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 herein.”

## OTHER ISSUES

We identified 5 additional areas where Oak Ridge was not meeting other power contract requirements with TVA or could strengthen its internal controls pertaining to customer contracts. Other power contract compliance issues we identified were: (1) meter testing results were accepted although they fell outside the accuracy standards of the power contract, (2) costs were not allocated according to the approved TVA joint cost study, and (3) required customer contracts were not on file. Oak Ridge's internal controls could be strengthened related to (1) customer contract documentation and (2) accuracy of contract demand in the billing system. Details of the 5 areas are discussed below.

### **Meter Accuracy Testing Did Not Comply With Contract**

Oak Ridge and TVA Comprehensive Services did not comply with Section 10 of the power contract. Specifically, Section 10 "Meter Tests" of the Rules and Regulations Governing Electric Power Distribution within the power contract indicates end-use customer meters should be accurate within 2 percent, slow or fast. We found TVA Comprehensive Services performed meter testing at the request of Oak Ridge. Out of 8 meter tests performed, 2 meters' test results fell outside of the allowable 2 percent margin. One meter's test results indicated meter accuracy was more than 9 percent fast and was correctly deemed outside the acceptable accuracy standards. This meter was replaced. The other meter's test results indicated meter accuracy was more than 4 percent slow; however, this meter was incorrectly deemed to be operating within acceptable accuracy standards. Oak Ridge accepted the test results provided by TVA and did not replace the meter.

### **Unapproved Allocation of Joint Costs**

Cost allocations between Oak Ridge and other city funds were not made in accordance with the most recent TVA-approved joint cost study. Under the power contract's Schedule of Terms and Conditions Section 1(a), the distributor is allowed to "use property and personnel jointly for the electric system and other operations, subject to agreement between Municipality and TVA as to appropriate allocations." The last cost study performed by TVA was conducted 28 years ago in 1983. At some point after 1983, without approval by TVA, Oak Ridge developed different cost allocations and applied the new allocations to distribute joint costs.

### **Customer Contracts Not on File**

Oak Ridge did not have a customer contract on file for 6 of the 18 GSA Part 3 or higher customer accounts. 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 OIG reports, indicated the threshold of 50 kW for requiring customer contracts was too low. TVA management will recommend to the TVA Board that a new and higher threshold be established as

part of the rate change process with the distributors.<sup>14</sup> In further discussions with TVA personnel, the proposed threshold for requiring a contract is 1 megawatt (MW), which classifies an account as at least GSA Part 3. 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.

### **Customer Contract Documentation Could Be Improved**

Two internal control issues related to 4 of the 12 GSA Part 3 or higher customer accounts with contracts at Oak Ridge could be strengthened. Customer contracts did not include (1) evidence of appropriate approval and (2) certification for manufacturing customers. Specifically, we found:

- 2 contracts did not contain evidence of approval. One contract was not signed by Oak Ridge, and the other contract was not signed by either the customer or Oak Ridge.
- Customer certification was not included as part of the contract file documentation for the 2 customer accounts under manufacturing service schedules. The power contract between TVA and Oak Ridge requires the customer certify to Oak Ridge on a TVA-approved form that it meets all the requirements of the manufacturing classification.

Maintenance of complete customer contract documentation is important to ensure customers are correctly classified and billed in accordance with the contract terms.

### **Contract Demand in Billing System Did Not Agree With Contract**

Two other internal control issues that could be strengthened were related to entering contract demand in the billing system. We identified 3 accounts where the contract demand per the contract did not agree with the contract demand entered into the billing system. Specifically, we found (1) 1 account did not have a contract on file but had a contract demand amount entered in the billing system, and (2) 2 accounts had a contract demand amount in the system that did not agree with the contract demand amount per the contract--one was higher and one was lower. Contract demand should be entered into the billing system at the agreed-upon contract amount to ensure proper calculation of the customer's bill for both the monthly demand charge and the minimum bill amount.

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<sup>14</sup> On February 2, 2011, TVA issued guidance to distributors changing the contract requirement threshold from 50 kW to 1 megawatt with flexibility for distributors to implement a lower limit. The guidance also stated effective, signed contracts should be retained in customer files for all customer accounts that meet the threshold requirement.

## TVA OVERSIGHT OPPORTUNITIES

We identified 2 new opportunities to enhance TVA's oversight of the distributors. Specifically, we found:

- TVA's process for verifying accuracy of DAR information did not adequately identify and address reporting errors.
- The meter accuracy testing standards used by TVA Comprehensive Services did not comply with the standards placed on the distributor in the power contract.

We also noted one issue for this distributor that was reported in previous OIG distributor reports. Specifically, we noted TVA has not performed a current joint cost study. The last joint cost study was conducted 28 years ago in 1983. The Accountants' Reference Manual states a joint cost study should be performed every three or four years or when a significant change occurs. In response to the previous reports, TVA agreed to take corrective actions on this issue.

Full discussion of the previously reported 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 Oak Ridge to improve compliance with the contract and/or strengthen internal controls. Specifically, Oak Ridge should:

1. Review retail rates and/or operating costs and, after considering the order in which electric system revenues are contractually required to be used, revise retail rates and/or operating costs as appropriate to enable the electric system to be self-supporting and financially sound.

**Oak Ridge's Response** – Oak Ridge disagreed with the finding related to this recommendation and stated the electric system was financially strong, and the amount owed to the city was a loan. However, Oak Ridge stated the intent of the recommendation was implemented through repayment of the debt owed to the city general fund in November 2009 and raising electric rates in October 2010. In addition, Oak Ridge stated that cash and reserve ratios will be monitored and adjusted accordingly. See Appendix B for Oak Ridge's complete response.

**TVA Management's Comments** – TVA management viewed the amount owed to the city as a loan. However, TVA management agreed that loans should be taken into consideration when evaluating whether Oak Ridge is operating on a self-supporting and financially sound basis. TVA management stated that while Oak Ridge has now repaid the amount owed

to the city and increased electric retail rates, TVA management will monitor Oak Ridge's loan practices going forward. See Appendix C for TVA's complete response.

**Auditor's Response** – While the OIG, Oak Ridge, and TVA management disagree regarding the nature of the \$1.5 million in unpaid obligations due to the city general fund noted in the audit, the OIG concurs with the actions planned and/or taken by Oak Ridge and TVA.

2. Review and revise annual payment in lieu of tax amounts to comply with conditions set forth in the power contract.

**Oak Ridge's Response** – Oak Ridge disagreed that the payment in lieu of taxes practices during the audit period violated the contract conditions. However, Oak Ridge stated the intent of the recommendation was implemented through repayment of the debt owed to the city general fund in November 2009 and raising electric rates in October 2010. In addition, Oak Ridge stated that cash and reserve ratios will be monitored and adjusted accordingly. See Appendix B for Oak Ridge's complete response.

**TVA Management's Comments** – TVA management disagreed with the recommendation based on the view that the amount owed to the city was a loan, and the power contract does not require a loan to be repaid in its entirety prior to making payments in lieu of taxes. See Appendix C for TVA's complete response.

**Auditor's Response** – While the OIG, Oak Ridge, and TVA management disagree regarding the nature of the \$1.5 million in unpaid obligations due to the city general fund noted in the audit, the OIG concurs with the actions planned and/or taken by Oak Ridge.

3. Maintain a reasonable reserve before making payments in lieu of taxes to comply with conditions set forth in the power contract.

**Oak Ridge's Response** – Oak Ridge disagreed with the finding related to this recommendation and stated the payments in lieu of taxes did not violate the contract conditions. However, Oak Ridge stated the intent of the recommendation was implemented through repayment of the debt owed to the city general fund in November 2009 and raising electric rates in October 2010. In addition, Oak Ridge stated that cash and reserve ratios will be monitored and adjusted accordingly. See Appendix B for Oak Ridge's complete response.

**TVA Management's Comments** – TVA management disagreed with the recommendation and stated a distributor has discretion to establish its level of reasonable reserves. TVA management further stated it did not see any reason Oak Ridge could not make payments in lieu of taxes without having

a higher level of reserves. However, TVA management did state that Oak Ridge's loan practices will be monitored to ensure Oak Ridge is operating on a financially sound basis. See Appendix C for TVA's complete response.

**Auditor's Response** – While the OIG, Oak Ridge, and TVA management disagree regarding the establishment of reasonable reserves during the audit period, the OIG concurs with the actions planned and/or taken by Oak Ridge and TVA.

4. Revise account structure to comply with FERC USofA or prepare and maintain a reconciliation of the current account structure and the prescribed FERC account structure.

**Oak Ridge's Response** – Oak Ridge agreed with the recommendation and stated a reconciliation of the current account structure and the prescribed account structure will be prepared within 6 to 8 months. See Appendix B for Oak Ridge's complete response.

**TVA Management's Comments** – TVA management agreed the account structure should be kept according to FERC and plans to discuss this recommendation with Oak Ridge. The target completion date for this action is May 2012. See Appendix C for TVA's complete response.

**Auditor's Response** – The OIG concurs with the actions planned by Oak Ridge and TVA.

5. Prepare the DAR using (1) line item reporting guidance contained in the Accountants' Reference Manual and (2) amounts supported by the trial balance.

**Oak Ridge's Response** – Oak Ridge agreed with the recommendation and stated Oak Ridge will work with TVA to clarify areas of misunderstanding or ambiguity. The target completion date for this action is June 2012. See Appendix B for Oak Ridge's complete response.

**TVA Management's Comments** – TVA management agreed with the recommendation and plans to discuss this recommendation with Oak Ridge. The target completion date for this action is May 2012. See Appendix C for TVA's complete response.

**Auditor's Response** – The OIG concurs with the actions planned by Oak Ridge and TVA.

6. Correct the general ledger to properly record the amounts due to the general fund as a payable.

**Oak Ridge's Response** – Oak Ridge agreed with the recommendation and agreed to correct the general ledger. The target completion date for this action is June 2012. See Appendix B for Oak Ridge's complete response.

**TVA Management's Comments** – TVA management agreed with the recommendation to the extent necessary to carry out Section 1 of the Terms and Conditions of the power contract. TVA management plans to discuss this recommendation with Oak Ridge. The target completion date for this action is May 2012. See Appendix C for TVA's complete response.

**Auditor's Response** – The OIG concurs with the actions planned by Oak Ridge and TVA.

7. Correct billing system programming to use entire contract demand amount when classifying GSA customers.

**Oak Ridge's Response** – Oak Ridge agreed with the recommendation and stated the billing system programming will be corrected. The target completion date for this action is August 2011. See Appendix B for Oak Ridge's complete response.

**TVA Management's Comments** – TVA management agreed with the recommendation and stated Oak Ridge plans to correct the billing system programming. The target completion date for this action is December 2012. See Appendix C for TVA's complete response.

**Auditor's Response** – The OIG concurs with the actions planned by Oak Ridge and TVA.

8. Correct customer misclassifications identified and implement procedures to assist in identifying residential accounts that need to be reclassified as commercial when service starts or changes to a nonresidential type (i.e., business or a separately metered structure).

**Oak Ridge's Response** – Oak Ridge agreed with the recommendation and stated a systematic approach to examining accounts needs to be developed and implemented. The development and implementation account examination will be the responsibility of the business office manager who is expected to be hired within the next 60 days. See Appendix B for Oak Ridge's complete response.

**TVA Management's Comments** – TVA management agreed customer rate classification should comply with rate schedules and plans to discuss this recommendation with Oak Ridge. The target completion date for this action is May 2012. See Appendix C for TVA's complete response.

**Auditor's Response** – The OIG concurs with the actions planned by Oak Ridge and TVA.

9. Revise billing system programming to use fractional data obtained from meter readings to classify customers, calculate customer bills, and report wholesale information to TVA based on the fractional thresholds stated in the approved rate schedules and power contract.

**Oak Ridge's Response** – Oak Ridge disagreed with the recommendation and objects to the premise that rounding is inappropriate. Oak Ridge stated that reprogramming the billing system to address this issue would be costly. However, Oak Ridge did state a new billing system will be installed over the next several years and will consider increasing the number of digits displayed during that time. See Appendix B for Oak Ridge's complete response.

**TVA Management's Comments** – TVA management disagreed with this recommendation and stated the power contract did not require a particular decimal-rounding standard. In addition, TVA estimates the number of customers impacted by rounding to not be material. See Appendix C for TVA's complete response.

**Auditor's Response** – While Oak Ridge and TVA management disagree with the necessity for using fractional data to accurately classify customers, the OIG maintains that using fractional data is appropriate based on the terms of the power contract, retail rate schedules, and Oak Ridge's current practice of obtaining fractional meter readings. However, the OIG realizes reprogramming the current billing system may not be cost beneficial and concurs with the action planned by Oak Ridge.

10. Replace meters that do not meet accuracy standards stated in the power contract.

**Oak Ridge's Response** – Oak Ridge disagreed with the recommendation and stated Oak Ridge relied on the professional opinion of a skilled engineer when accepting meter testing results. See Appendix B for Oak Ridge's complete response.

**TVA Management's Comments** – TVA management disagreed with the recommendation and stated the power contract does not provide a meter accuracy standard. However, TVA also stated the Rules and Regulations section of the power contract only requires Oak Ridge to provide a billing adjustment after customer requested meter tests show the meter is running greater than 2 percent fast or slow. See Appendix C for TVA's complete response.

**Auditor's Response** – The OIG does not disagree with Oak Ridge's assertion that TVA Comprehensive Services are the technical professionals in the area of meter accuracy. However, Section 10 of the Rules and Regulations Governing Electric Power Distribution state that in the case of



customer requested meter tests, if "...the meter test shows the meter to be in excess of two percent (2%), slow or fast, an adjustment may be made in the customer's bill for a period of not over thirty (30) days prior to the date of the test, and the cost of making the test shall be borne by the Distributor." As stated in our report, OIG personnel noted test results indicating a meter's accuracy was more than 4 percent slow, which falls outside of the 2 percent parameter for adjusting a customer bill if a customer had requested the meter test. If a meter test may result in a bill adjustment, the OIG finds it reasonable to recommend that such meters be replaced or repaired. (NOTE: In its response to recommendation 17, TVA management offers a new determination that meters tested in the field and found to be about 4 percent fast or slow rate are generally equivalent to a 2 percent fast or slow rate for meters tested under more accurate laboratory conditions. The OIG would suggest that TVA communicate this new determination to all distributors, as we have found those distributors previously audited were not aware this distinction was acceptable in terms of providing customer credits.)

11. Obtain TVA approval of allocation of joint costs currently being used.

**Oak Ridge's Response** – Oak Ridge agreed with the recommendation and stated Oak Ridge will work with TVA to gain approval for the cost allocations currently in place. The target completion date for this action is June 2012. See Appendix B for Oak Ridge's complete response.

**TVA Management's Comments** – TVA management agreed that the cost allocation study should be updated and stated field accountants will work with Oak Ridge to complete the study and implement any changes required. The target completion date for this action is May 2012. See Appendix C for TVA's complete response.

**Auditor's Response** – The OIG concurs with the actions planned by Oak Ridge and TVA.

12. Obtain and maintain properly executed customer contracts for all GSA Part 3 and higher customers.

**Oak Ridge's Response** – Oak Ridge agreed with the recommendation and stated a new business office manager will be responsible for ensuring employees are properly trained for compliance with the power contract. Oak Ridge also stated a document management system will be developed to ensure required documents can be quickly and easily accessed. The target completion date for this action is June 2012. See Appendix B for Oak Ridge's complete response.

**TVA Management's Comments** – TVA management agreed with the recommendation and stated Oak Ridge will work with customers whose

demand exceeds 1 MW to obtain signed contracts. The target completion date for this action is May 2012. See Appendix C for TVA's complete response.

**Auditor's Response** – The OIG concurs with the actions planned by Oak Ridge and TVA.

13. Obtain appropriate approval for customer contracts on file without signatures.

**Oak Ridge's Response** – Oak Ridge agreed with the recommendation and stated a new business office manager will be responsible for ensuring employees are properly trained for compliance with the power contract. Oak Ridge also stated a document management system will be developed to ensure required documents can be quickly and easily accessed. The target completion date for this action is June 2012. See Appendix B for Oak Ridge's complete response.

**TVA Management's Comments** – TVA management agreed with the recommendation and stated Oak Ridge will work with customers whose demand exceeds 1 MW to obtain signed contracts. The target completion date for this action is May 2012. See Appendix C for TVA's complete response.

**Auditor's Response** – The OIG concurs with the actions planned by Oak Ridge and TVA.

14. Obtain certification from customers under manufacturing schedules that they meet the requirements of the schedule.

**Oak Ridge's Response** – Oak Ridge agreed with the recommendation and stated customer files are being reviewed and certification will be requested. Oak Ridge also stated a document management system will be developed to ensure required documents can be quickly and easily accessed. The target completion date for this action is June 2012. See Appendix B for Oak Ridge's complete response.

**TVA Management's Comments** – TVA management agreed with the recommendation and stated Oak Ridge will work with customers to ensure the appropriate certifications are obtained from customers and retained on file. The target completion date for this action is May 2012. See Appendix C for TVA's complete response.

**Auditor's Response** – The OIG concurs with the actions planned by Oak Ridge and TVA.

15. Implement a process to ensure all customers with contracts have the appropriate contract demand entered into the billing system and the contract demand values in the system agree with the customer's contract.

**Oak Ridge's Response** – Oak Ridge agreed with the recommendation and stated a technique will be developed and implemented to (1) identify and verify contract demand and (2) ensure contract demand is appropriately set in the billing system. Oak Ridge also stated a document management system will be developed to ensure required documents can be quickly and easily accessed. The target completion date for this action is June 2012. See Appendix B for Oak Ridge's complete response.

**TVA Management's Comments** – TVA management agreed with the recommendation and stated Oak Ridge will develop a technique to identify and verify contract demand as part of a new document management system. The target completion date for this action is May 2012. See Appendix C for TVA's complete response.

**Auditor's Response** – The OIG concurs with the actions planned by Oak Ridge and TVA.

The Group President, Strategy and External Relations, should:

16. Implement process(es) for verifying accuracy of DAR information to adequately identify and address reporting errors.

**TVA Management's Comments** – TVA management agreed with the recommendation and stated an increased and trained Distributor Analysis staff devoted to the process of reviewing DAR information will reduce errors. TVA believes the current process will prevent material errors. There is no target completion date as this is an ongoing effort. See Appendix C for TVA's complete response.

**Auditor's Response** – The OIG concurs with the action taken by TVA.

17. Review TVA Comprehensive Services meter accuracy testing standards for tests performed on behalf of the distributor to ensure they comply with the standards stated in the power contract.

**TVA Management's Comments** – TVA management disagreed with the recommendation and stated the power contract does not contain a meter accuracy testing standard. TVA also stated that the greater than 2 percent fast or slow standard applied to billing adjustments was equivalent to 4 percent fast or slow for meters tested in the field. TVA management stated discussions with TVA Comprehensive Services will be held to determine the feasibility of implementing measures under which field testing results could specify equivalent ranges of meter accuracies for testing in the field versus in the lab. The target completion date for this action is May 2012. See Appendix C for TVA's complete response.

**Auditor's Response** – While the power contract may not provide a specific meter accuracy standard for replacing meters, Section 10 of the Rules and Regulations Governing Electric Power Distribution states Oak Ridge may make billing adjustments when tests are conducted at a customer's request

and a meter is found to be in excess of 2 percent fast or slow. If it is TVA management's determination that a field test accuracy of 4 percent is equivalent to a laboratory test accuracy of 2 percent, the OIG would suggest that TVA communicate this new determination to all distributors, as we have found those distributors previously audited were (1) not aware this distinction was acceptable in terms of providing customer credits and (2) using 2 percent as their criteria.

## **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 Oak Ridge 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:

- Obtained electronic billing data for the audit period. To validate the reliability of the billing data, we compared the data to the information reported to TVA on the Schedule 1. No significant differences were noted, therefore the data was deemed reliable.
- Performed queries on data to identify classification, metering, and contract compliance issues. Reviewed results of the queries and, using nonstatistical sampling, selected accounts for further analysis and follow-up to determine whether misclassification, metering issues, or noncompliance with contract requirements occurred. Since nonstatistical sampling was used, projection of the results was not appropriate.
- Limited our work on internal controls to those control deficiencies identified as contributing to noted instances of noncompliance with the power contract and/or the TVA Act.
- Determined through inquiry and review of documentation whether Oak Ridge had any nonelectric, system-related business interests supported by electric system funds.
- Obtained disbursements listing for the audit period. Reviewed and analyzed disbursements to identify instances where electric system funds may have been used for purposes not allowed under the TVA power contract. Used nonstatistical sampling to select questionable disbursements for further analysis and follow-up. Since nonstatistical sampling was used, projection of the results was not appropriate.
- Reviewed cash and cash equivalents in relation to planned capital expenditures and other business uses of cash.

## **OBJECTIVE, SCOPE, AND METHODOLOGY (cont.)**

When evaluating results of our audit work, we used both qualitative and quantitative factors when considering the significance of an item. For the purposes of this audit, the quantitative factor considered in determining an item's significance is whether the item exceeds 3 percent of the average annual purchased power from TVA for the audit period. For this audit, this amount equaled \$1,127,262.30, either positive or negative. Also, we considered any errors identified as systemic or intentional as significant.

The scope of the audit was for the period July 2007 through June 2009. Fieldwork was conducted March 2010 through August 2010 and included visiting the distributor's offices in Oak Ridge, Tennessee. 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.

CITY OF  
OAK RIDGE



Office of the City Manager

POST OFFICE BOX 1 • OAK RIDGE, TENNESSEE 37831-0001

June 21, 2011

Mr. Robert E. Martin  
Assistant Inspector General  
Tennessee Valley Authority  
400 West Summit Hill Drive  
Knoxville, TN 37902-1401

Dear Mr. Martin:

**Draft Distributor Audit of the City of Oak Ridge, Dated May 17, 2011**

I am in receipt of the referenced audit and your incorporated letter of May 17, 2011.

Initially, the City of Oak Ridge appreciates the opportunity to comment on the referenced document. As you will be aware, this is the second time that we have made comments relative to the audit. While our positions have not significantly changed, perhaps we can further clarify several specific issues.

Oak Ridge has been a distributor of TVA power since its incorporation in 1959. During that time, we have had numerous visits, operational reviews and meetings with TVA and its staff. We have always been forthcoming with our processes and methods. We have worked successfully with TVA in the past and will likely do so in the future. Although we have made minor course corrections in the past to accommodate the latest interpretation of the contract or law, the dismissal of those previous concurrences in this audit is disturbing and contributes to the tone of the interactions with the staff in its review. In that TVA has not been critical of our way of doing business, we wonder about the target of this audit.

That said, we realize that TVA is our regulator and recognize that a successful future must include an Oak Ridge/TVA relationship. As such, this response will generally limit its discussions to a factual response of the recommendations made and leave interpretations of intent to others.

In your letter you stated that our comments should address each recommendation by indicating:

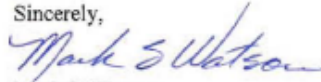
- Agreement or disagreement with all facts, conclusions and recommendations.
- Actions taken or planned and the date actions were completed or are planned to be completed.

Mr. Robert E. Martin  
Page 2  
June 21, 2011

We will follow that format in our discussion of the audit and address each recommendation on a point-by-point basis. Note, however, that we do not intend to address each erroneous statement or inference in the text of the document unless doing so is specifically germane to the discussion of the recommendation under consideration.

Finally, I would be lax in my duties if I did not address your closing paragraph in which you state that "recipients of this draft report are responsible for safeguarding it to prevent publication or other improper disclosure." It is the opinion of the City of Oak Ridge that your draft report becomes subject to the Tennessee Open Records Law once it has been submitted to the City. Should the City receive a request for the document, we are prepared to deny that request only if the Tennessee Valley Authority is willing to defend the legal ground on which the denial is made. This is also true of all documents received by the City marked "restricted information" or "confidential." We will advise you if such a request is made and seek your direction.

Sincerely,



Mark S. Watson  
City Manager

Attachment

cc: Jack L. Suggs, Electrical Director  
Steven W. Jenkins, Deputy City Manager



**Response to Recommendations**  
**Draft Distributor Audit of the City of Oak Ridge, Dated May 17, 2011**

1. Review retail rates and/or operating costs and, after considering the order in which electric system revenues are contractually required to be used, revise retail rates and/or operating costs as appropriate to enable the electric system to be self-supporting and financially strong.

**Facts:** The City does not dispute the general historical accuracy of the fact situation presented.

**Conclusions:** The City of Oak Ridge disagrees in the strongest possible terms with the conclusions drawn from the fact situation. We believe that a historically acceptable technique of documented, arms-length, inter-fund loans has been distorted by interpretation. We strongly deny non-compliance with the contract or law and believe that the fund has always been self-supporting and that within the context of the legal entity that is the City of Oak Ridge, the fund has been financially strong.

**Recommendations:** The recommendation is necessary founded on the conclusion. We do not acknowledge the conclusion. That said, because of adjustments made predating the audit, the intent of the recommendation has been complied with.

**Actions Taken or Planned:** The City borrowed five million dollars in November of 2009 to replay the short term loans that lie at the heart of this matter. Additionally, in October of 2010, rates were adopted that would increase the cash position of the Electric Fund in recognition of higher risk to the Electric Fund, and therefore the City as a whole due to the Wholesale Rate Change that TVA adopted April 1, 2011. Attachments 1 and 2 show the projected impact of the rate increase and demonstrates that cash and reserve ratios will meet the suggested guidelines. The Impact of the adjustment made will be continually monitored and adjustments made as required to maintain guideline cash and reserve ratios.

2. Review and revise annual payment in lieu of tax amounts to comply with conditions set forth in the power contract.

**Facts:** See response to item #1.

**Conclusions:** The City of Oak Ridge disagrees with the conclusions that the actions taken to date have been inappropriate or require correction for legal or contractual reasons.

**Recommendations:** The recommendation is necessary founded on the conclusion. We do not acknowledge the conclusion. That said, because of adjustments made predating the audit, the intent of the recommendation has been complied with.

**Actions Taken or Planned:** The City plans on continuing to make payment in lieu of tax payments from its funds in accordance with Tennessee law and the contract. Our continuing review of fund stability, cash and reserves will ensure that this obligation does not negatively affect the Electric Fund.

3. Maintain a reasonable reserve before making payments in lieu of taxes to comply with conditions set forth in the power contract.

**Facts:** See response to item #1.

**Conclusions:** The City of Oak Ridge disagrees with the conclusions that the actions taken to date have been inappropriate or requires correction for legal or contractual reasons.

**Recommendations:** The recommendation is necessary founded on the conclusion. We do not acknowledge the conclusion. That said, because of adjustments made predating the audit, the intent of the recommendation has been complied with.

**Actions Taken or Planned:** The City plans on continuing to make payments in lieu of tax payments from its funds in accordance with Tennessee law and the contract. Our continuing review of fund stability, cash and reserves will ensure that this obligation does not negatively affect the Electric Fund.

4. Revise account structure to comply with FERC USofA or prepare and maintain a reconciliation of the current account structure and the prescribed FERC account structure.

**Facts:** Oak Ridge does not dispute the facts in the recommendation.

**Conclusions:** No substantive conclusions were found that require comment.

**Recommendations:** Oak Ridge does not object to this recommendation.

**Actions Taken or Planned:** Oak Ridge maintains an accounting system which it believes to be equivalent to the required FERC system. Account names were intuitively tied to the FERC system in the naming conventions of the accounts. That said, Oak Ridge plans to prepare and maintain a reconciliation of the current account structure within six to eight months.

5. Prepare the DAR using (1) line item reporting guidance contained in the Accountant's Reference Manual, and (2) amounts supported by the trial balance

**Facts:** The City does not dispute the general historical accuracy of the fact situation presented.

**Conclusions:** The conclusion of this section is not disputed, as long as Oak Ridge asserts that any understatement of assets and liabilities and/or incorrect reporting on the balance sheet or revenue and expense statement were an inadvertent result of following a previously accepted open and transparent process.

**Recommendations:** Oak Ridge does not object to this recommendation.

**Actions Taken or Planned:** Oak Ridge has been using its reporting method to meet TVA requirements for many years. This has been an open and transparent process. Oak Ridge is willing to work with TVA to correct any areas of misunderstanding or ambiguity and to better comply with the requirements of the Accountant's Reference Manual. Such an effort will begin within three months and be completed before the end of the current Oak Ridge fiscal year.

6. Correct the general ledger to properly record the amounts due to the general fund as payable.

**Facts:** The City does not dispute the general historical accuracy of the fact situation presented.

**Conclusions:** Oak Ridge concurs that the current method of accounting for the debt mentioned caused confusion with the auditors and led them to erroneous conclusions regarding the ability of the Electric Fund to meet its obligations and, as such, needs to be corrected.

**Recommendations:** Oak Ridge is willing to comply with the recommendation.

**Actions Taken or Planned:** This problem will be corrected as a part of the solution for Recommendation 5.

7. Correct billing system programming to use entire contract demand amount when classifying GSA customers.

**Facts:** Oak Ridge concurs that the current GSA classification is based upon 30% of contract demand.

**Conclusions:** Oak Ridge concurs that this classification has resulted in errors in customer classification.

**Recommendations:** Oak Ridge concurs with the recommendation.

**Actions Taken or Planned:** Oak Ridge recognizes that this correction needs to be made, and will take action to implement correction within the next ninety days.

8. Correct customer misclassifications identified and implement procedures to assist in identifying residential accounts that need to be reclassified as commercial when service starts or changes to a nonresidential type (i.e. business or separately metered structure).

**Facts:** Oak Ridge acknowledges that some customer accounts were misclassified as residential when they should have been commercial.

**Conclusions:** Oak Ridge acknowledges the conclusion drawn from misclassification in general.

**Recommendations:** Oak Ridge agrees that a systematic approach to examining accounts needs to be developed and implemented.

**Actions Taken or Planned:** This item will be identified as a priority item for a new business office manager who is expected to be hired within the next sixty days.

9. Revise billing system programming to use fractional data obtained from meter readings to classify customers, calculate bills and report wholesale information to TVA based on the fractional thresholds stated in the approved rate schedules and power contracts.

**Facts:** Oak Ridge concurs that rounding is used in the billing process to define demand.

**Conclusions:** Oak Ridge does not agree with the conclusions drawn. For example if 0.5 percent of a GSA customer had, at some point in the study period, been billed for exactly 50 kW due to rounding- that does not infer that the customer is potentially misclassified as the remaining bills during the study period would provide definition of the proper class. Further, Oak Ridge does not accept the premise that rounding in general is inappropriate.

**Recommendations:** Oak Ridge objects to this recommendation as it would place an undue burden on Oak Ridge in the form of expending rate payer dollars to reprogram a billing system that has functioned well for many years. For this large expenditure, Oak Ridge customers would receive no discernable benefit. While increasing the number of digits may increase the perceived precision of the reading, it does not change the accuracy. Oak Ridge attempts to be frugal with its expenditures, especially in an economy such as the one that exists today. Our current system has served us well, but uses antiquated technology, the updating of which would be very expensive and difficult.

**Actions Taken or Planned:** Over the next several years, Oak Ridge will be replacing its billing system. When that replacement occurs, Oak Ridge will examine its practice of rounding, and consider increasing the number of digits displayed.

10. Replace meters that do not meet accuracy standards stated in the power contract.

**Facts:** Oak Ridge disagrees with the facts as presented. Oak Ridge received a complaint that a meter was running "fast." We contracted with TVA comprehensive services who provided a registered professional engineer to evaluate the complaint. With full knowledge of his equipment and the limitations of this equipment, the engineer performed a meter test. At the time the test was conducted, it was known that sufficient current did not exist in the meter circuitry to obtain an accurate reading, but rather the engineer was confident that it would provide a sense as the general claim that the meter installation was "fast."

The professional engineer examined the meter installation, ran the test and interpreted the results. Given his knowledge of the installation, the equipment and the loads being measured, he determined that the meter test was acceptable.

The auditors have attempted to interpret the printed report of this test without the background, knowledge or training of the engineer and declare that he erred in his interpretation of that report. Further, this recommendation infers that Oak Ridge erred in accepting the opinion of a professional engineer skilled in his task and provided with the latest technology available.

This is not acceptable.

**Conclusions:** Oak Ridge disagrees with the conclusions drawn in this section and maintains that we consistently follow accuracy standards.

**Recommendations:** Oak Ridge sees no value to this recommendation, as it already complies with the recommendation and always has done so.

**Actions Taken or Planned:** Oak Ridge plans to continue to rely on trained individuals with the calibrated test equipment to determine if a meter meets the accuracy standards that we must follow.

11. Obtain TVA approval of allocation of joint cost currently being used.

**Facts:** The City does not dispute the general historical accuracy of the fact situation presented.

**Conclusions:** Oak Ridge does not dispute the conclusions drawn.

**Recommendations:** Oak Ridge concurs with this recommendation.

**Actions Taken or Planned:** Oak Ridge will work with TVA and demonstrate to their satisfaction the cost allocation scheme currently in use. We anticipate that this work will be completed within twelve months.

12. Obtain and maintain properly executed customer contracts for all GSA Part 3 and higher customers.

**Facts:** Oak Ridge concurs that it was unable to present the requested documents.

**Conclusions:** Oak Ridge concurs with the conclusions drawn in the discussion document.

**Recommendations:** Oak Ridge concurs with the recommendation.

**Actions Taken or Planned:** This item will be identified as a priority item for a new business office manager who is expected to be hired within the next sixty days. Compliance will be achieved through a combination of employee training and technology. The new business office manager will be responsible for identifying training needs, finding appropriate sources for training and enacting same. A second major part of compliance will be the development of a document management system that ensures that required documents can be quickly and easily accessed. Both of these actions should be completed within the next twelve months.

13. Obtain appropriate approval for customer contracts on file without signatures.

**Facts:** Oak Ridge acknowledges that documents without evidence of approval were presented.

**Conclusions:** Oak Ridge concurs with the conclusions drawn in the discussion document.

**Recommendations:** Oak Ridge concurs with the recommendation.

**Actions Taken or Planned:** This item will be identified as a priority item for a new business office manager who is expected to be hired within the next sixty days. The new business office manager will be tasked with review of contacts, identification of problems and resolutions. A second major part of compliance will be the development of a document management system that ensures that required documents can be quickly and easily accessed. Both of these actions should be completed within the next twelve months.

14. Obtain certification from customers under manufacturing schedules that they meet the requirements of the schedule.

**Facts:** Oak Ridge acknowledges that the certification documentation was not a part of the customer file.

**Conclusions:** Oak Ridge concurs with the conclusions drawn in the discussion document.

**Recommendations:** Oak Ridge concurs with the recommendation.

**Actions Taken or Planned:** In May of 2011, Oak Ridge started the process of reviewing the file for required certifications and requesting updated certifications from its customers. This work will continue over the next several months. As before, a second major part of compliance will be the development of a document management system that ensures that required documents can be quickly and easily accessed. Both of these actions should be completed within the next twelve months.

15. Implement a process to ensure that all customers with contracts have the appropriate contract demand entered into the billing system and the contract demand values in the system agree with the customer's contract.

**Facts:** Oak Ridge concurs that the situation described did occur.

**Conclusions:** Oak Ridge concurs with the conclusions drawn in the discussion document.

**Recommendations:** Oak Ridge concurs with the recommendation.

**Actions Taken or Planned:** Within ninety days, Oak Ridge will develop a technique to identify and verify contract demands and ensure that they are appropriately set. Resources such as are required will be directed to this problem. Execution of this program will likely occur with implementation of the document management system described above, with the project being concluded within twelve months.

ATTACHMENT 1

Distributor Local Adjustment

TOTAL INCREASE PROJECTED **\$922,784.33**

Note: Projected \$ adjustment may vary slightly from the amount entered below because of the rounding of rates to the number of digits billed

169 OAK RIDGE, TENNESSEE

TOTAL INCREASE  
 \$0 - Smart Demand \$ Increase or Decrease Note  
 0.00% - DO NOT CHANGE - Calculates % Increase from \$ Amount  
 - Enter Adjustment Option 1 or 2

Distributor Adjustment Options  
 Across the Board based on equal % adjustment to all charges (excluding lighting, > 1 MW)  
 0.00% % to customer charges (excluding lighting, > 1 MW)  
 0.00% % to demand/energy charges (excluding lighting, > 1 MW)

\* In addition to Tariff Adjustment

Schedule	Charge	Rate	Current Rate	Current Rate Before FCA	Total Revenue Before FCA	Total Schedule Revenue Before FCA	2017 10		Smart Demand with Distribution Adjustment	Actual Rate with Distribution Adjustment	Difference from Target Revenue	Per Tag		2017 (Mill)	2018 (Mill)	Adjustment	Revenue	Revenue by Schedule
							Distributor Local Adjustment	Distributor Local Adjustment				Final Charge	% Change					
RD	CC #1	182.746	\$7.78	\$7.78	\$1,252,144.28	\$0.00	\$0.00	\$1,252,144.28	\$7.78	\$7.78	\$0.00	0.00%	\$325,492.35	\$0.00	\$0.00	\$0.00	\$1,219,652.22	\$0.00
RD	CC #2	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
RD	AL kWh	187.182.215	\$0.00006	\$0.00006	\$15,102,217.48	\$0.00	\$0.00	\$15,102,217.48	\$0.00006	\$0.00006	\$0.00	0.00%	\$0.00	\$0.00006	\$0.00006	\$0.00006	\$15,102,217.48	\$0.00006
RD	Smart1	0	\$0.00000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00000	\$0.00000	\$0.00000	\$0.00	0.00%	\$0.00	\$0.00000	\$0.00000	\$0.00000	\$0.00	\$0.00
RD	Smart2	0	\$0.00000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00000	\$0.00000	\$0.00000	\$0.00	0.00%	\$0.00	\$0.00000	\$0.00000	\$0.00000	\$0.00	\$0.00
RD	Smart3	0	\$0.00000	\$0.00	\$0.00	\$15,355,061.03	\$0.00	\$0.00	\$0.00000	\$0.00000	\$0.00	0.00%	\$0.00	\$0.00000	\$0.00000	\$0.00000	\$0.00	\$15,355,061.03
TRD	CC	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TRD	Offpeak kWh	0	\$0.00000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00000	\$0.00000	\$0.00000	\$0.00	0.00%	\$0.00	\$0.00000	\$0.00000	\$0.00000	\$0.00	\$0.00
GS#1	CC #1	21.835	\$17.81	\$17.81	\$382,255.59	\$0.00	\$0.00	\$382,255.59	\$17.81	\$17.81	\$0.00	0.00%	\$0.00	\$0.00	\$0.00	\$0.00	\$382,255.59	\$0.00
GS#1	CC #2	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GS#1	CC #3	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GS#1	CC #4	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GS#1	AL kWh	18,822,288	\$0.1024	\$0.1024	\$1,928,432.74	\$0.00	\$0.00	\$1,928,432.74	\$0.1024	\$0.1024	\$0.00	0.00%	\$0.00	\$0.1024	\$0.1024	\$0.1024	\$1,928,432.74	\$0.1024
GS#1	Smart1	0	\$0.00000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00000	\$0.00000	\$0.00000	\$0.00	0.00%	\$0.00	\$0.00000	\$0.00000	\$0.00000	\$0.00	\$0.00
GS#1	Smart2	0	\$0.00000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00000	\$0.00000	\$0.00000	\$0.00	0.00%	\$0.00	\$0.00000	\$0.00000	\$0.00000	\$0.00	\$0.00
GS#1	Smart3	0	\$0.00000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00000	\$0.00000	\$0.00000	\$0.00	0.00%	\$0.00	\$0.00000	\$0.00000	\$0.00000	\$0.00	\$0.00
GS#1	Smart4	0	\$0.00000	\$0.00	\$0.00	\$4,355,092.43	\$0.00	\$0.00	\$0.00000	\$0.00000	\$0.00	0.00%	\$0.00	\$0.00000	\$0.00000	\$0.00000	\$0.00	\$4,355,092.43
GS#2	CC #1	4.030	\$88.00	\$88.00	\$355,740.00	\$0.00	\$0.00	\$355,740.00	\$88.00	\$88.00	\$0.00	0.00%	\$48,000.00	\$0.00	\$88.00	\$88.00	\$355,740.00	\$0.00
GS#2	CC #2	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GS#2	CC #3	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GS#2	CC #4	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GS#2	1M 15,000 kWh	48,406,355	\$0.10424	\$0.10424	\$5,038,346.85	\$0.00	\$0.00	\$5,038,346.85	\$0.10424	\$0.10424	\$0.00	0.00%	\$0.00	\$0.10424	\$0.10424	\$5,038,346.85	\$0.10424	
GS#2	Additional kWh	184,318,178	\$0.05418	\$0.05418	\$10,036,102.07	\$0.00	\$0.00	\$10,036,102.07	\$0.05418	\$0.05418	\$0.00	0.00%	\$393,374.89	\$0.05418	\$0.05418	\$0.05418	\$10,036,102.07	\$0.05418
GS#2	1M 20+000	428,438	\$18.58	\$18.58	\$7,954,892.82	\$0.00	\$0.00	\$7,954,892.82	\$18.58	\$18.58	\$0.00	0.00%	\$0.00	\$18.58	\$18.58	\$7,954,892.82	\$18.58	
GS#3	CC #1	49	\$188.19	\$188.19	\$2,751.31	\$0.00	\$0.00	\$2,751.31	\$188.19	\$188.19	\$0.00	0.00%	\$248.88	\$188.19	\$188.19	\$2,751.31	\$188.19	
GS#3	CC #2	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GS#3	AL kWh	33,807,145	\$0.05579	\$0.05579	\$1,885,840.15	\$0.00	\$0.00	\$1,885,840.15	\$0.05579	\$0.05579	\$0.00	0.00%	\$66,584.29	\$0.05579	\$0.05579	\$1,849,255.86	\$0.05579	
GS#3	MW Smart1	0	\$0.00000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00000	\$0.00000	\$0.00000	\$0.00	0.00%	\$0.00	\$0.00000	\$0.00000	\$0.00000	\$0.00	\$0.00
GS#3	MW Smart2	0	\$0.00000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00000	\$0.00000	\$0.00000	\$0.00	0.00%	\$0.00	\$0.00000	\$0.00000	\$0.00000	\$0.00	\$0.00
GS#3	MW 0 - 1,000	14,819	\$14.83	\$14.83	\$219,177.33	\$0.00	\$0.00	\$219,177.33	\$14.83	\$14.83	\$0.00	0.00%	\$0.00	\$14.83	\$14.83	\$219,177.33	\$14.83	
GS#3	MW 1,001 - 2,000	19,213	\$16.70	\$16.70	\$320,867.75	\$0.00	\$0.00	\$320,867.75	\$16.70	\$16.70	\$0.00	0.00%	\$0.00	\$16.70	\$16.70	\$320,867.75	\$16.70	
GS#3	MW Smart3	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00000	\$0.00000	\$0.00000	\$0.00	0.00%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GS#3	MW Smart4	0	\$10.75	\$10.75	\$0.00	\$0.00	\$0.00	\$0.00	\$10.75	\$10.75	\$0.00	0.00%	\$0.00	\$10.75	\$10.75	\$0.00	\$0.00	\$0.00
GS#3	MW Smart5	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
						\$2,887,288.48										\$2,887,288.48		0.00%

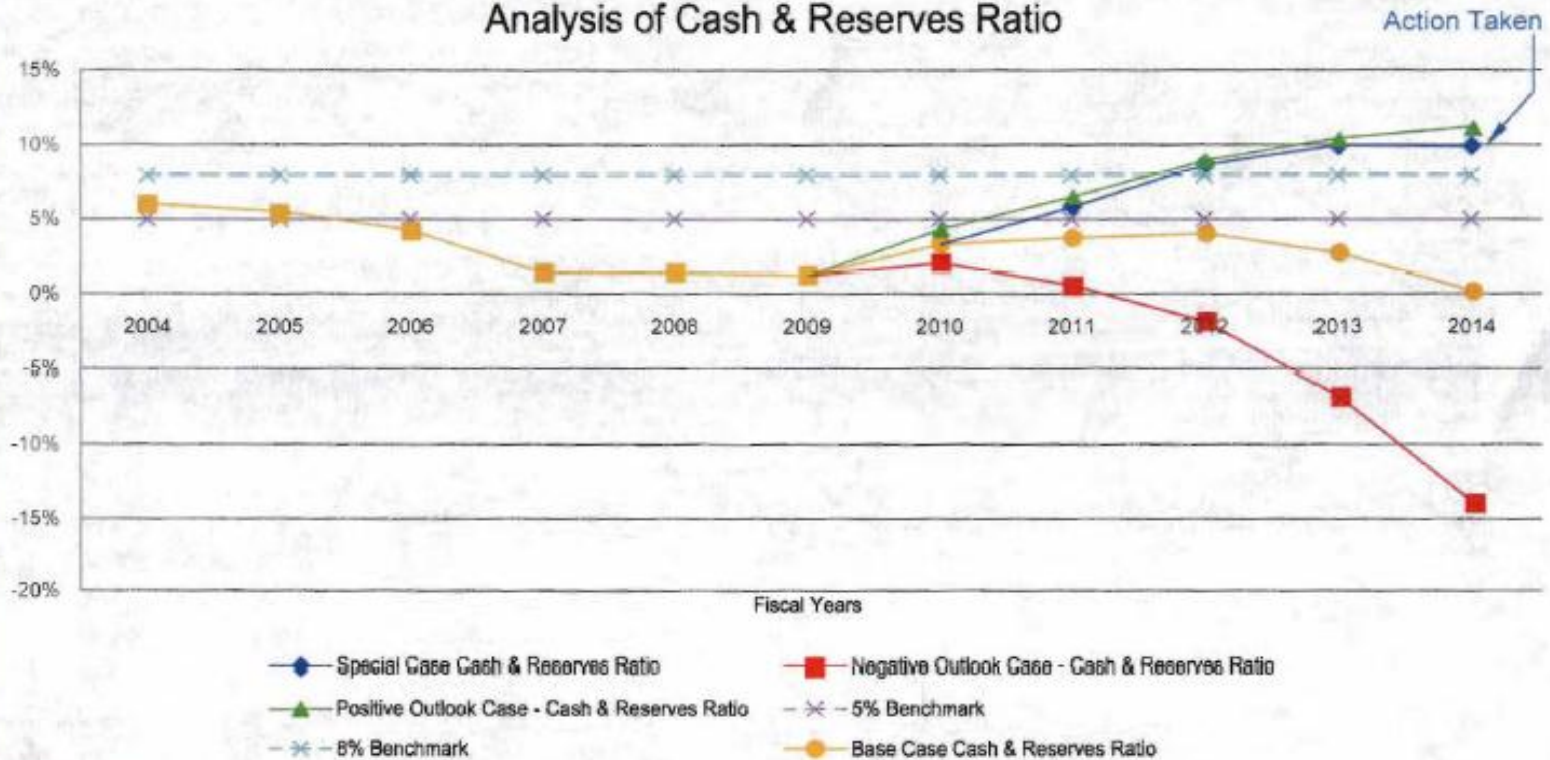
ATTACHMENT 2

# Distributor Management Presentation

## Financial Analysis

Assumes:  
Rate Increases: FY 2011 1.9%  
Debt Increases: None  
Assumes a Wholesale Cost Decrease of \$436,387 per year

### Analysis of Cash & Reserves Ratio





July 1, 2011

Robert E. Martin, ET 3C-K

RESPONSE TO DRAFT AUDIT REPORT 2009-12595 – DISTRIBUTOR AUDIT OF  
THE CITY OF OAK RIDGE ELECTRIC DEPARTMENT

This is in response to your memorandum dated May 17, 2011.

**Following the “Background” section, specific responses to each recommendation are provided. These responses (a) explain whether Tennessee Valley Authority (TVA) agrees with the recommendation; (b) state whether further action is necessary; and (c) list target completion dates for any actions that are planned.**

**BACKGROUND**

The most significant points raised by the Office of the Inspector General (OIG) in this audit center around a loan of city general funds to the City of Oak Ridge Electric Department (CORED). For this reason, TVA management would like to address these points generally before responding to each recommendation in more detail.

As noted by the OIG, CORED was given money from the City's general fund as has been the practice for many years. As further noted by OIG, some portion of the monthly wholesale bill to TVA was paid using the proceeds of these funds. OIG has further stated that these funds that the CORED relied on could not be treated as loans but as unpaid expenses. TVA management views the funds as loans similar to a line of credit.

TVA management agrees that OIG has identified loans from the City to CORED that could potentially raise questions about the financial health of CORED. TVA management further agrees that the Power Contract requires a distributor to operate its electric system on a self-supporting and financially sound basis. TVA recognizes that overreliance by CORED on a loan from the City could indicate that CORED is not financially sound. In other words, the loans identified by OIG caused TVA to question whether CORED had revenues sufficient to provide for the operation and maintenance of the electric system on a self-supporting and financially sound basis. Accordingly, TVA has evaluated CORED's financial health in light of the loans identified by OIG, and TVA management has determined after looking at the totality of CORED's **current** circumstances, CORED is conducting its business in a financially sound manner.

Moreover, CORED is not in breach of the Power Contract. To come to this conclusion, TVA examined CORED's situation in light of the principal objective underlying TVA's regulation of distributors of TVA power. First, the TVA Act reflects the intent of Congress to pass the benefits of TVA power through to the ultimate consumer. Specifically, section 11 of the Act states, “the projects...provided for shall be considered primarily as for the benefit of the people of the section as a whole and particularly the domestic and rural consumers to whom power can economically be made available...” Furthermore, the section 1 of the Power Contract, which sets forth the purpose of the contract, states that “[Distributor]’s operation of a [municipal]

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electric system and TVA's wholesale service thereto are primarily for the benefit of the consumers of electricity.

Several of the recommendations made by the OIG are based on the premise that using proceeds from the City is improper, and subsequently, CORED was not operating on a self-supporting and financially sound basis. OIG's understanding of the funds is that they were not loans but rather unpaid expenses and past due amounts that the CORED was unable to pay over long periods of time. TVA management's understanding is that the funds were loans that were drawn similar to a line of credit and therefore were not improper. The documentation and classification of the loans themselves should be strengthened and corrected but TVA management does not agree that the fact that CORED had loans from the City is by itself sufficient to support this premise.

It is TVA management's understanding that CORED took a loan from the City each year as part of its unique business practice under which CORED made particular allocations of its funds to cover its expenses. Furthermore, it is TVA management's understanding that the loans from the City typically equaled approximately three percent of CORED's revenues (fiscal year 2009 revenue approximated \$52 million; fiscal year 2009 loan balance was \$1,581,486). There has been no evidence that the electric ratepayers have been in any way disadvantaged or harmed by these loans. To the contrary, it appears that the loans have only benefited the ratepayers. It appears that the loans have enabled CORED to maintain a lower level of reserves than might otherwise have been needed, helping to keep electric rates lower than they otherwise would have been.

Next, nothing in the Power Contract prohibits or otherwise limits a municipality from loaning funds to its electric system or from donating funds to its electric system without requiring that they be repaid. As such, there are no limitations on how such funds are used by the electric system. Therefore, the electric system may appropriately choose to use such funds to pay for operating and maintenance expenses in lieu of raising rates to cover such expenses.

Furthermore, CORED has not breached section 4 of the Power Contract. The OIG interprets section 4 of the Power Contract as prohibiting CORED from using a loan to pay its wholesale power bill. However, TVA management believes that section 4 does not provide such a prohibition. Rather, under the contract, payments due to TVA shall not be "a charge upon municipality's general funds." This prohibition prevents TVA from being able to reach the City's general funds through a lawsuit in the event that CORED fails to pay its wholesale power bill. TVA management does not believe that this provision, which must be read in light of the purpose of the contract set forth in section 1 of the Power Contract, is a prohibition against another entity loaning or even donating funds to an electric system especially when such loan or donation serves to ultimately benefit the electric ratepayers.

In addition, CORED has not breached section 6 of the Power Contract. Section 6 of the Power Contract merely lists the specific purposes for which a Distributor *may* use the gross revenues from electric operations. Nothing in this provision prohibits CORED from being able to use other funds for paying for the expenses listed under section 6. Further, CORED has not violated this provision by using the above-referenced proceeds from the City's general funds to pay for a portion of its operating expenses and using its revenues to cover the remaining expenses permitted under section 6. All section 6 requires with regard to the payment order of expenses is that CORED ensure that it is able to cover its operating expenses and reserves before using revenues for the other permitted uses.

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TVA management appreciates the recommendations of OIG as such recommendations underscore one of the principal objectives of the Power Contract which is to protect the electric ratepayer. TVA management agrees with OIG that the practice of taking loans from the City may be unsustainable, and as such, may present some risk to the ratepayer. Accordingly, TVA will monitor the loan practices of CORED, and if the circumstances reveal that the electric system's rates are insufficient to operate the electric system on a self-supporting and financially sound basis, TVA will certainly engage CORED in discussions to agree upon changes in CORED's rates as will be necessary to provide increased revenues to place the electric system upon a self-supporting and financially sound basis.

TVA management would suggest that CORED keep better documentation regarding the use of loans and we will work with CORED to ensure the documentation associated with any future financial transactions be more complete and transparent. Finally, the OIG has indicated that their understanding of the money made available to the Electric Department is something other than a loan (as was understood by TVA). If this is (was) the case, TVA management would agree with the OIG that the CORED may require a different fiscal approach to cover planned or unplanned expenditures and would initiate those discussions with CORED.

Currently, however, no such discussions are necessary. Following meetings with both the OIG and TVA, CORED has informed TVA that although it does not agree with the OIG's position that taking a loan from the City was in violation of the Power Contract, it has paid off the fiscal year 2010 loan, increased its resale rates by 2.24 percent, and increased its cash reserves to 5.9 percent.

#### **RECOMMENDATIONS**

1. Review retail rates and/or operating costs and, after considering the order in which electric system revenues are contractually required to be used, revise retail rates and/or operating costs as appropriate to enable the electric system to be self-supporting and financially sound.
  - TVA management agrees that the existence of the loans is a factor that must be considered in TVA's and CORED's assessment of whether CORED's retail rates and/or operating costs are appropriate to operate the electric system upon a self-supporting and financially sound basis. However, the fact that CORED has a loan from the City does not necessarily evidence a need for a rate increase. The availability of funds from a loan could certainly impact any consideration of whether a rate increase is necessary. TVA management believes that a distributor's circumstances in total must be considered when determining whether the distributor's rates are sufficient to operate its electric system on a self-supporting and financially sound basis for the appropriate planning period. TVA management further agrees with OIG that if CORED's could not sustain its current operating costs, it should either raise rates or cut operating costs. However, this situation does not call for such action as CORED has paid off the fiscal year 2010 loan, increased its retail rates by 2.24 percent, and increased its cash reserves to 5.9 percent. Nevertheless, TVA intends to monitor CORED's loan practices going forward.
  - Actions planned or taken, and completion dates: No further action is necessary.

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2. Review and revise annual payment in lieu of tax amounts to comply with conditions set forth in the Power Contract.
  - TVA management does not agree with this recommendation. CORED appropriately made in lieu of tax payments in accordance with the terms of the Power Contract. OIG concluded that based on the fact that CORED did not pay back the loan in its entirety before making in lieu of tax payments, CORED violated the Power Contract by making such in lieu of tax payments. However, as discussed above, nothing in the Power Contract prohibits CORED from taking a loan from the City. Furthermore, nothing in the Power Contract nor terms of the loan (that TVA management is aware of) requires the loans to be fully paid back prior to the payment of in lieu of tax payments as long as CORED ensures that it is able to cover its operating expenses for the appropriate planning period which is typically longer than an annual cycle.
  - Actions planned or taken, and completion dates: No further action is necessary.
3. Maintain a reasonable reserve before making payments in lieu of taxes to comply with conditions set forth in the Power Contract.
  - TVA management does not agree with this recommendation. TVA management's main concern regarding a distributor's reserves is that such reserves not be excessive. Accordingly, a distributor has discretion to establish its *reasonable* reserves. TVA management generally views reasonable reserves as reserves that are sufficient to cover contingencies. In this case, TVA management recognizes that the availability of funds from a loan or line of credit from the City could certainly impact the need for CORED to have higher cash reserves. TVA management is not aware of any facts that would make it problematic or unreasonable for CORED to make payments in lieu of taxes without having a higher level of reserves.
  - Actions planned or taken, and completion dates: As discussed in the Background section above, TVA plans to monitor CORED's loan practices to ensure that CORED continues to operate on a financially sound basis.
4. Revise account structure to comply with Federal Energy Regulatory Commission (FERC) Uniform System of Accounts or prepare and maintain a reconciliation of the current account structure and the prescribed FERC account structure.
  - TVA management agrees that the Power Contract requires CORED to keep the general books of accounts of the electric system in accordance with FERC Uniform System of Accounts.
  - Actions planned or taken, and completion dates: TVA plans to discuss this recommendation with CORED. Target completion date is May 2012.
5. Prepare the distributor annual report using (1) line item reporting guidance contained in the Accountants' Reference Manual and (2) amounts supported by the trial balance.
  - TVA management agrees with this recommendation.
  - Actions planned or taken, and completion dates: TVA plans to discuss this recommendation with CORED. Target completion date is May 2012.

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6. Correct the general ledger to properly record the amounts due to the general fund as a payable.
  - TVA management agrees with the recommendation to the extent necessary for CORED to carry out the requirements of section 1 of the Terms and Conditions of the Power Contract which require it to maintain the electric system separate from the other municipal departments.
  - Actions planned or taken, and completion dates: TVA plans to discuss this recommendation with CORED. Target completion date is May 2012.
7. Correct billing system programming to use entire contract demand amount when classifying General Services Administration customers.
  - TVA management agrees with this recommendation.
  - Actions planned or taken, and completion dates: Oak Ridge plans to make the corrections in the system. Target completion date is December 2012.
8. Correct customer misclassifications identified and implement procedures to assist in identifying residential accounts that need to be reclassified as commercial when service starts or changes to a nonresidential type (i.e., business or a separately metered structure).
  - TVA management agrees that customer rate classification should comply with rate schedules.
  - Actions planned or taken, and completion dates: TVA plans to discuss this recommendation with CORED. Target completion date is May 2012.
9. Revise billing system programming to use fractional data obtained from meter readings to classify customers, calculate customer bills, and report wholesale information to TVA based on the fractional thresholds stated in the approved rate schedules and power contract.
  - TVA management disagrees with the recommendation. Neither the Power Contract nor the rate schedules require a particular decimal-rounding standard. Accordingly, as long as a distributor does so in a consistent and nondiscriminatory manner, a distributor has discretion in the method used for rounding data obtained from the customer meters. TVA also estimates that the impact of customers that are on the "cusp" and are classified upwards or downwards is not material.
  - Actions planned or taken, and completion dates: No further action is necessary.
10. Replace meters that do not meet accuracy standards stated in the Power Contract.
  - TVA management disagrees with the recommendation. The Power Contract does not provide a meter accuracy standard. Section 10 of CORED's Schedule of Rules and Regulations only requires that it provide a billing adjustment for meters that are tested, upon customer's request, and found to be running greater than two percent fast or slow.
  - Actions planned or taken, and completion dates: No further action is necessary.

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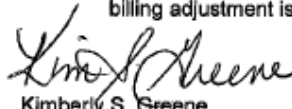
11. Obtain TVA approval of allocation of joint costs currently being used.
  - TVA management agrees that the allocation of joint costs should be updated.
  - Actions planned or taken, and completion dates: TVA's field accountants will complete this study within the next year and work with CORED to agree on and implement any changes required. Target completion date is May 2012.
12. Obtain and maintain properly executed customer contracts for all GSA Part 3 and higher customers.
  - TVA management agrees with this recommendation.
  - Actions taken or planned and completion dates: CORED will work with customers whose contract demand exceeds one megawatt to obtain signed contracts. Target completion date is May 2012.
13. Obtain appropriate approval for customer contracts on file without signatures.
  - TVA management agrees with this recommendation.
  - Actions taken or planned and completion dates: CORED will work with customers to ensure that the appropriate approvals are obtained with respect to the contracts on file without signatures. Target completion date is May 2012.
14. Obtain certification from customers under manufacturing schedules that they meet the requirements of the schedule.
  - TVA management agrees with this recommendation.
  - Actions taken or planned and completion dates: CORED will work with customers to ensure that the appropriate certifications are obtained from the customers and retained on file. Target completion date is May 2012.
15. Implement a process to ensure all customers with contracts have the appropriate contract demand entered into the billing system and the contract demand values in the system agree with the customer's contract.
  - TVA management agrees that CORED should have internal controls in place that will ensure data is correctly entered into the system.
  - Actions taken or planned and completion dates: CORED will develop a technique to identify and verify contract demand as part of a new document management system. Target completion date is May 2012.

The Group President, Strategy and External Relations, should:

16. Implement process(es) for verifying accuracy of distributors' annual report information to adequately identify and address reporting errors.
  - TVA management agrees that distributors' annual report information should be accurate to adequately identify and address reporting errors.

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- Actions taken or planned and completion dates: TVA has been increasing and training its Distributor Analysis staff to verify accuracy of distributor annual report information. We expect that the increased staff devoted to this process will reduce misclassification errors. In addition, TVA also relies on the external auditing firm's report for each distributor to provide a further check on this process. TVA staff endeavors to find all the errors but also recognizes that the accuracy of this process is also driven by the level of resources devoted to this effort. TVA management believes that this current process is sufficient to prevent material error and believes that further processes cannot be justified because even further processes will not eliminate occasional immaterial mistakes. This is an ongoing effort with no target completion date.
17. Review TVA comprehensive services meter accuracy testing standards for tests performed on behalf of the distributor to ensure they comply with the standards stated in the power contract.
- TVA management disagrees with the recommendation. The Power Contract does not provide a meter accuracy standard. Section 10 of the Distributor's Schedule of Rules and Regulations only requires that CORED provide a billing adjustment for meters that are tested, upon customer's request, and found to running greater than two percent fast or slow. Furthermore, with regard to this two percent standard billing adjustment standard, TVA management view's that typically about four percent fast or slow rate found in meters tested in the field to be generally equivalent to a two percent fast or slow rate for different meters tested under more accurate laboratory conditions. These ranges vary depending on conditions such as humidity, temperature, electric load.
  - Actions taken or planned and completion dates: TVA will discuss with its Comprehensive Services staff the feasibility of implementing measures under which field testing results could specify equivalent ranges of meter accuracies for testing in the field versus in the lab in order to avoid confusion on when a billing adjustment is necessary. Target completion date is May 2012.



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