Memorandum from the Office of the Inspector General

September 28, 2011

Kimberly S. Greene, WT 7B-K

FINAL REPORT – AUDIT 2010-13660 – DISTRIBUTOR AUDIT OF BVU AUTHORITY

Attached is the subject final report for your review and information. Your written comments, which addressed your management decision and actions taken, have been included in the report. No response to this report is necessary.

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

Robert E. Martin

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

SLO:JP
Attachment
cc (Attachment):
- Steve Byone, WT 4B-K
- Micheal B. Fussell, WT 9B-K
- Peyton T. Hairston, Jr., WT 7B-K
- Tom Kilgore, WT 7B-K
- Richard W. Moore, ET 4C-K
- Robert A. Morris, WT 7C-K
- Emily J. Reynolds, OCP 1L-NST
- Stephen B. Summers, WT 5C-K
- John M. Thomas III, MR 6D-C
- John G. Trawick, WT 3D-K
- Robert B. Wells, WT 9B-K
- OIG File No. 2010-13660

Office of the Inspector General

Audit Report

To the Group President, Strategy and External Relations

DISTRIBUTOR AUDIT OF BVU AUTHORITY

Audit Team
Stephanie L. Simmons
Jessica L. Monroe

Audit 2010-13660
September 28, 2011

ACRONYMS AND ABBREVIATIONS

CSA	Central Service Association
FY	Fiscal Year
kW	Kilowatt
OIG	Office of the Inspector General
SIC	Standard Industrial Classification
TVA	Tennessee Valley Authority

TABLE OF CONTENTS

EXECUTIVE SUMMARY i

BACKGROUND..... 1

FINDINGS 3

ALLOCATION METHODOLOGY CONSISTENTLY APPLIED ACROSS DIVISIONS 3

IMPROPERLY CLASSIFIED CUSTOMERS IDENTIFIED 3

CERTIFICATIONS NOT OBTAINED FOR CUSTOMERS ON MANUFACTURING RATES 5

CONTRACT DEMAND IN BILLING SYSTEM DID NOT AGREE WITH CONTRACT 5

ADJUSTMENTS NOT ADEQUATELY SUPPORTED WITH DOCUMENTATION..... 5

RECOMMENDATIONS 6

APPENDICES

A. OBJECTIVE, SCOPE, AND METHODOLOGY

B. LETTER DATED SEPTEMBER 20, 2011, FROM STACY E.POMRENKE TO ROBERT E. MARTIN

C. MEMORANDUM DATED SEPTEMBER 27, 2011, FROM JOHN G. TRAWICK TO ROBERT E. MARTIN

Audit 2010-13660 – Distributor Audit of BVU Authority

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 BVU Authority, a distributor based in Bristol, Virginia. The objective of the audit was to determine compliance with key provisions of the power contract between the Tennessee Valley Authority (TVA) and BVU for the audit period July 2008 through June 2010. 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) 2010, BVU provided power to approximately 16,500 customers resulting in electric sales revenue of approximately $49 million. During the audit period, BVU also operated a water division, wastewater division, and telecommunications division, which included broadband, telephone, cable television, and managerial and consulting services. In addition, BVU provided billing services for the garbage collection division of the City of Bristol, Virginia. At June 30, 2010, BVU had a 14.3 percent cash ratio before considering planned FY 2011 capital expenditures and a 7.8 percent cash ratio after considering planned FY 2011 capital expenditures.

What the OIG Found

BVU generally complies with the contract provisions for (1) proper reporting of electric sales, (2) nondiscrimination in providing power, and (3) use of electric revenue for approved purposes. We found BVU's multiple lines of business are adequately segregated, and the allocation methodology is reasonable and consistently applied. However, areas for improvement were noted. Specifically, we found:

- 439 customer accounts during the audit period that appeared to be potentially misclassified based on customer name. BVU reviewed these accounts and determined seven accounts (1.6 percent) were misclassified as residential. Additionally, one customer account was misclassified within the GSA schedule. The customer was misclassified because of a rounding issue identified in BVU's billing agency's system. The customer classifications have been corrected and the monetary effect on BVU and TVA was not significant.
- Required customer certifications were not on file for the two customers receiving power under a manufacturing rate. BVU obtained both certifications in July 2011.
- Contract demand was either not entered into the billing system or incorrectly entered into the billing system for four of eight customers (50 percent) with contracts. BVU has corrected the contract demand in the billing system for all four customers.
- Documentation was not present for three of seventeen customer adjustments reviewed (17.7 percent).

EXECUTIVE SUMMARY

What the OIG Recommends

We recommend the Group President, Strategy and External Relations, work with BVU to resolve the two specified recommendations listed within this report. The recommendations generally relate to (1) implementing controls to ensure customers are classified correctly and (2) maintaining appropriate documentation.

Management's Comments

BVU and TVA management agreed with our recommendations and have taken actions to address the recommendations. See Appendix B for BVU's complete response and Appendix C for TVA's complete response.

Auditor's Response

The OIG concurs with actions taken by BVU and TVA to correct the identified issues.

BACKGROUND

BVU Authority[1] is a distributor for Tennessee Valley Authority (TVA) power based in Bristol, Virginia, with revenues from electric sales of approximately $49 million in fiscal year (FY) 2010. Prior to April 1, 2011,[2] 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 BVU as of June 2010.

BVU's Customer Mix as of June 2010

Customer Classification	Number of Customers	Revenue	Kilowatt Hours Sold
Residential	13,860	$ 20,258,240	213,303,624
General Power – 50 Kilowatt (kW) and Under (Commercial)	2,201	4,254,412	39,507,926
General Power – Over 50 kW (Commercial or Manufacturing)	325	22,939,989	296,710,223
Street and Athletic	26	752,278	2,994,094
Outdoor Lighting	112	389,081	3,097,075
Unbilled Revenue		620,492	
Total	**16,524**	**$ 49,214,492**	**555,612,942**

Table 1

TVA's distributors are required to establish control processes over customer setup, rate application, and measurement of usage to ensure accurate and complete reporting to TVA. BVU, like many other distributors, outsources its billing and invoice processing to a third-party processor, Central Service Association (CSA). BVU uses CSA systems to establish and set up new customers, input customer meter information, perform the monthly billing process, and maintain customer account information. Additionally, CSA provides BVU with management reporting capabilities (e.g., exception reports) designed to ensure the accuracy and completeness of the customer invoice and Schedule 1 provided to TVA. All other accounting and finance responsibilities are handled by BVU, which has a Board of Directors who provide oversight and a President and management team who manage the daily activities.

---

1 Prior to July 2010, BVU Authority was referred to as Bristol Virginia Utilities.

2 On April 1, 2011, TVA moved from distributors self-reporting customer usage to billing distributors based on actual energy and demand takings using meter readings from the wholesale delivery points.

During the audit period, BVU also operated a water division, wastewater division, and telecommunications division, which included broadband, telephone, cable television, and managerial and consulting services. In addition, BVU provided billing services for the garbage collection division of the City of Bristol, Virginia.

As of June 30, 2010, BVU had a 14.3 percent cash ratio before considering planned FY 2011 capital expenditures and a 7.8 percent cash ratio after considering planned FY 2011 capital expenditures, which is within TVA's established guidelines for an adequate cash ratio of 5 to 8 percent.[3] Specifically, BVU had approximately $6.4 million in cash and cash equivalents and $2.9 million in planned capital projects for FY 2011 (see Table 2 below).

BVU's Cash Accounts Compared to Planned Capital Expenditures

	Cash and Cash Equivalents at June 30, 2010	FY 2011 Planned Capital Expenditures	Reserve After Planned Capital Expenditures
Amount	$6,442,757	$2,923,870	$3,518,887
Cash Ratio Percentage	14.34%		7.83%

Table 2

According to TVA records, as of our audit period, BVU was approved for one rate increase in 2008. Per BVU personnel, this increase was required by TVA when the distributor returned to TVA's system. Table 3 below shows the rate increase received by BVU and the cash position and cash ratio at June 30 prior to the effective date of the rate change.

BVU's Rate Increases, Cash Position, and Cash Ratio

Cash on Hand Equivalent to an 8% Cash Ratio	Cash and Cash Equivalents[4] and Cash Ratio	Rate Increase[5]		
		Change in Revenue	Percent	Effective Date
$3,215,851	-$716,459 (CR=-1.78%)	$662,000	1.37%	06/01/2008

Table 3

[3] TVA reviews the cash ratios of distributors as part of its regulatory rate review function. Cash ratio is calculated as follows:

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

[4] The cash and cash equivalents and cash ratio were computed based on information from BVU's annual report as of June 30 prior to the effective date of the rate increase.

[5] 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 BVU management indicated its operating philosophy is generally conservative. BVU prefers to use cash to pay for capital expenditures and is generally debt adverse.

FINDINGS

BVU generally complies with the contract provisions for (1) proper reporting of electric sales, (2) nondiscrimination in providing power, and (3) use of electric revenue for approved purposes. We found BVU's multiple lines of business are adequately segregated, and the allocation methodology is reasonable and consistently applied. However, we found improvements were needed in (1) classifying customers, (2) obtaining manufacturing certifications from customers, (3) entering contract demand in the billing system, and (4) documenting rationale for adjustments.

ALLOCATION METHODOLOGY CONSISTENTLY APPLIED ACROSS DIVISIONS

We found BVU has adequately segregated their multiple lines of business and does not appear to be using electric revenue for nonelectric purposes, other than those allowed under the contract. Additionally, BVU appears to be consistently allocating shared costs according to the TVA approved Cost Allocation Manual. The Cost Allocation Manual clearly outlines BVU's allocation methodology for allocating shared costs across divisions based on direct costs and/or allocation percentages. Our review of monthly allocations, rental calculations, debt allocations, sample journal entries, and sample expenses found BVU's allocation methodology to be reasonable and consistently applied.

IMPROPERLY CLASSIFIED CUSTOMERS IDENTIFIED

We identified 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.[6] The monetary effect of these misclassifications on BVU and TVA was not significant. However, correcting customer classification issues is important to ensure all customers are placed in the correct rate classification and charged the same rate as other customers with similar circumstances.

[6] Section 5 Resale Rates subsection (a) of the power contract between TVA and BVU dated September 29, 2006, 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."

We noted seven customer accounts were misclassified under the Residential Rate – Schedule RS[7] that should have been classified under the General Power Rate – Schedule GSA.[8] The GSA schedule is divided into three parts—Part 1, Part 2, and Part 3—based on electric usage and demand. We identified 439 customer accounts that appeared to be improperly classified based on customer name. At our request, BVU reviewed these customer accounts and determined 7 accounts (1.6 percent) were incorrectly classified. These accounts were for businesses, churches, and a shop. According to BVU personnel, the 7 customer accounts have been reclassified from residential to the appropriate part of the GSA schedule.

Additionally, we noted one customer account was misclassified within the GSA schedule for one month during our audit period. According to the GSA schedule, a customer should be classified as GSA Part 2 if (1) usage is over 15,000 kilowatt hours, (2) metered demand exceeds 50 kilowatts (kW), or (3) contract demand is greater than 50 kW. When a customer is moved to GSA Part 2, the customer must remain at that classification for 12 months after the usage meets the Part 2 criteria. The customer account was classified as GSA Part 1 and had metered demand over 50.01 kW; therefore, the customer should have been classified as GSA Part 2 for the next 12 months. However, the CSA system used by BVU did not automatically change customers from GSA Part 1 to GSA Part 2 based on metered demand until after demand exceeds 50.499 kW rather than the 50 kW as stated under Part 2 of the GSA schedule. This customer account was automatically upgraded the next month to GSA Part 2 by the billing system when the demand reached 52.8 kW. In response to previous distributor audit reports, CSA modified the billing system to address this issue.

[7] Under the Residential Rate – Schedule RS, customers are classified based on the following requirement: "This rate shall apply only to electric service to a single-family dwelling (including its appurtenances if served through the same meter), where the major use of electricity is for domestic purposes such as lighting, household appliances, and the personal comfort and convenience of those residing herein."

[8] Under the General Power Rate – Schedule GSA, 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 kilowatts (kW) and (b) the customer's monthly energy takings for any month during such period do not exceed 15,000 kilowatt hours.
- 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 kilowatt hours.
- 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.

CERTIFICATIONS NOT OBTAINED FOR CUSTOMERS ON MANUFACTURING RATES

A customer certification was not on file for the two customers receiving power under the Manufacturing Service Rate – Schedule MSB.[9] According to the MSB rate schedule, prior to initially taking any service under this schedule a customer shall certify to BVU and TVA that the major use of electricity is for activities that are classified with a 2-digit Standard Industrial Classification (SIC) Code between 20 and 39, inclusive. BVU personnel subsequently obtained the customers' SIC code certifications in July 2011 showing the customers met the SIC code requirements of the manufacturing schedule. Certifying and documenting a customer meets the SIC code requirement is important to correctly place customers within rate classifications.

CONTRACT DEMAND IN BILLING SYSTEM DID NOT AGREE WITH CONTRACT

We found four of the eight customers with contracts (50 percent) either did not have contract demand entered into the billing system or had incorrect contract demand entered into the billing system at some time during our audit period. BVU did not have a procedure in place to ensure contract demand was correctly entered into the billing system when customer contracts were obtained. 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 the monthly demand charge and calculating the customer's minimum bill. BVU has corrected the contract demand in the billing system for all four customers. Additionally, BVU management informed us they instituted a new policy for verifying contract demand in response to this finding as of August 8, 2011. The Office of the Inspector General (OIG) agrees with the actions taken.

ADJUSTMENTS NOT ADEQUATELY SUPPORTED WITH DOCUMENTATION

BVU could strengthen internal controls regarding customer account adjustments. Specifically, we found three out of seventeen adjustments we reviewed (17.7 percent) did not have notes documenting the reason for the adjustment. According to BVU personnel, the informal process is to enter the reason for adjustments into the notes field in the billing system when making an adjustment. However, this process has not been formalized. Having a formal, written process including documentation and reviewing requirements for customer adjustments would help ensure adjustments are applied consistently and accurately. BVU management informed us they instituted a new policy for documenting customer

---

9 Under the Manufacturing Service Rate – Schedule MSB, customers are classified as MSB where (a) the customer's currently effective contract demand is greater than 5,000 kW but not more than 15,000 kW, and (b) the major use of electricity is for activities conducted at the delivery point serving that customer, which are classified with a 2-digit Standard Industrial Classification Code between 20 and 39, inclusive.

adjustments in response to this finding as of August 8, 2011. The OIG agrees with the actions taken.

RECOMMENDATIONS

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

1. Implement a process to assist in identifying accounts that need to be reclassified and prevent classification issues from recurring.

   BVU's Response – BVU agrees with the recommendation. On September 1, 2011, BVU implemented a policy to assist in identifying accounts that need to be reclassified and prevent classification issues from recurring. See Appendix B for BVU's complete response.

   TVA Management's Comments – TVA management agrees with the recommendation. Distributor has fixed the misclassifications identified by the OIG and has implemented a policy to assist in identifying accounts that need to be reclassified and prevent classification issues from recurring. See Appendix C for TVA's complete response.

   Auditor's Response – The OIG concurs with actions taken.

2. Implement a process to ensure certifications are obtained from customers receiving power under a manufacturing rate.

   BVU's Response – BVU agrees with the recommendation. On September 1, 2011, BVU implemented a process to ensure certifications are obtained from customer receiving power under a manufacturing rate. See Appendix B for BVU's complete response.

   TVA Management's Comments – TVA management agrees with the recommendation. The Power Contract requires the distributor to maintain the required certifications in order to sell power under the manufacturing classification. Distributor has implemented a process to ensure certifications are obtained from customers receiving power under a manufacturing rate. See Appendix C for TVA's complete response.

   Auditor's Response – The OIG concurs with actions taken.

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 BVU including:

- Proper reporting of electric sales by customer class to facilitate proper revenue recognition and billing by TVA.
- Nondiscrimination in providing electricity 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 BVU 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 will use both qualitative and quantitative factors when considering the significance of an item. For the purposes of this audit the quantitative factor(s) to be considered in determining an item's significance are:

- If the dollar value of an error(s) and/or item of noncompliance with the contract exceeds 3 percent of the distributor's average annual power cost during the audit period, or $1,196,172, it would be considered significant.
- In respect to the distributor's unapproved use of revenues, we consider the following to be significant.
  - A negative cash ratio results after subtracting the distributor's funds at risk during the audit period (loans extended or debts guaranteed with electric revenues) from the cash and cash equivalents balance at the end of the audit period.
  - Amounts expended by the electric department on behalf of a nonelectric department/operating unit during the audit period (without payback from the nonelectric department) exceed the rate increase amounts approved by TVA during the audit period.

The scope of the audit was for the period July 2008 through June 2010. Fieldwork was conducted June through August 2011 and included visiting the distributor's corporate office in Bristol, Virginia. 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 the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Leading the Way!

September 20, 2011

Mr. Robert E. Martin
Assistant Inspector General, Audits and Inspections
TVA Office of the Inspector General
400 West Summit Hill Drive, ET 3C
Knoxville, Tennessee 37902

Dear Mr. Martin:

Please let this letter serve as BVU Authority's formal response to your draft audit report 2010-13660 dated August 26, 2011.

Per revisions to said draft audit, as discussed with Audit Team member Stephanie L. Simmons, two recommendations remain. The two recommendations are as follows:

1. *Implement a process to assist in identifying accounts that need to be reclassified and prevent classification issues from recurring.*

    - BVU agrees with the recommendation.

    - **Action**: On September 1, 2011 BVU implemented a policy to assist in identifying accounts that need to be reclassified and prevent classification issues from recurring.

2. *Implement a process to ensure certifications are obtained from customers receiving power under a manufacturing rate.*

    - BVU agrees with the recommendation.

    - **Action**: On September 1, 2011 BVU implemented a process to ensure certifications are obtained from customers receiving power under a manufacturing rate.

PO Box 8100, Bristol, VA 24203-8100 • 15022 Lee Highway, Bristol, VA 24202
Phone 276-669-4112 • Fax 276-645-8741

Please advise if you require additional information or have questions. I can be reached at 276.645.8707 or by e-mail at spomrenke@bvub.com.

Sincerely,

Stacey E Pomrenke

Stacey E. Pomrenke
Executive Vice President & CFO

cc: Wes R. Rosenbalm, President & CEO
Brian C. Bolling, Vice President, Customer Service

September 27, 2011

Robert E. Martin, ET 3C-K

RESPONSE TO DRAFT AUDIT REPORT 2010-13660 – DISTRIBUTOR REVIEW OF BVU AUTHORITY

This is in response to your memorandum dated August 26, 2011.

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

Recommendations

The draft audit has been revised and two recommendations remain. The two recommendations are as follows:

1. Implement a process to assist in identifying accounts that need to be reclassified and prevent classification issues from recurring.
   - TVA management agrees with the recommendation.
   - **Actions taken or planned, and completion dates**: Distributor has fixed the misclassifications identified by the OIG and has implemented a policy to assist in identifying accounts that need to be reclassified and prevent classification issues from recurring.

2. Implement a process to ensure certifications are obtained from customers receiving power under a manufacturing rate.
   - TVA management agrees with the recommendation. The Power Contract requires distributor maintain the required certifications in order to sell power under the manufacturing classifications.
   - **Actions taken or planned, and completion dates**: Distributor has implemented a process to ensure certifications are obtained from customers receiving power under a manufacturing rate.

John G. Trawick
Senior Vice President
Commercial Operations & Planning
WT 3D-K

VB:TP
cc: Kim Greene, WT 7B-K
Peyton T. Hairston Jr., WT 7B-K
Michael R. Hynes, WT 3D-K
John P. Kernodle, WT 6D-K
Robert E. Martin, ET 4C-K
Richard W. Moore, ET 4C-K
John M. Thomas III, MR 6D-
Diane Wear, WT 4B-K
Robert B. Wells, WT 9B-K
EDMS