



Memorandum from the Office of the Inspector General

May 31, 2012

Joseph J. Hoagland, WT 7B-K

**REQUEST FOR FINAL ACTION – AUDIT 2010-13658 – DISTRIBUTOR AUDIT OF
KNOXVILLE UTILITIES BOARD**

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

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

If you have questions or wish to discuss our findings, please contact me at (865) 633-7373 or Richard C. Underwood, Director, Corporate Governance and Finance Audits, at (423) 785-4824. We appreciate the courtesy and cooperation received from your staff during the audit.

David P. Wheeler
Deputy Assistant Inspector General
(Audits)
ET 3C-K

MMN:DBS
Attachment
cc (Attachment):

Micheal B. Fussell, WT 9B-K
Peyton T. Hairston, Jr., WT 7B-K
Cynthia L. Herron, OCP 1F-NST
Tom Kilgore, WT 7B-K
Richard W. Moore, ET 4C-K
Robert A. Morris, WT 7C-K
Ronald L. Owens, SP 3A-C
Emily J. Reynolds, OCP 1L-NST
John M. Thomas III, MR 6D-C
Van M. Wardlaw, OCP 1N-NST
Robert B. Wells, WT 9B-K
OIG File No. 2010-13658



Office of the Inspector General

Audit Report

To the Senior Vice President,
Policy and Oversight

DISTRIBUTOR AUDIT OF KNOXVILLE UTILITIES BOARD

Audit Team

Melissa M. Neusel
Jessica L. Monroe
Jennifer R. Torregiano

Audit 2010-13658
May 31, 2012

ABBREVIATIONS

CIS	Customer Information System
FY	Fiscal Year
KUB	Knoxville Utilities Board
kW	Kilowatt
kWh	Kilowatt Hours
OIG	Office of the Inspector General
SMC	Small Manufacturing Credit
TVA	Tennessee Valley Authority

TABLE OF CONTENTS

EXECUTIVE SUMMARY	i
BACKGROUND.....	1
FINDINGS	3
USE OF ELECTRIC REVENUE FOR UNAPPROVED PURPOSES.....	4
IMPROPER REPORTING OF ELECTRIC SALES AND/OR POTENTIAL DISCRIMINATION IN PROVIDING POWER TO CUSTOMERS.....	5
OTHER ISSUES.....	6
TVA OVERSIGHT OPPORTUNITIES	8
RECOMMENDATIONS	8

APPENDICES

- A. OBJECTIVE, SCOPE, AND METHODOLOGY
- B. LETTER DATED MAY 18, 2012, FROM MINTHA E. ROACH TO DAVID P. WHEELER
- C. MEMORANDUM DATED MAY 21, 2012, FROM CYNTHIA L. HERRON TO DAVID P. WHEELER



Audit 2010-13658 – Distributor Audit of Knoxville Utilities Board

EXECUTIVE SUMMARY

Why the OIG Did This Audit

In 2002, the Tennessee Valley Authority's (TVA) Board of Directors approved and made available to distributors six wholesale Power Contract flexibility options. One of the options terminated TVA's contract authority and obligations regarding distributors' retail rates. Four distributors (Knoxville Utilities Board [KUB], Meriwether Lewis Electric Cooperative, Memphis Light, Gas and Water Division, and Scottsboro Electric Power Board) selected this option. Although each of these four distributors has the authority to determine the retail rates it will charge to its customers with limited or no oversight by TVA, the TVA Board did not relinquish its responsibility to ensure (1) the power purchased is sold and distributed to the ultimate consumer without discrimination among consumers of the same class; and (2) no discriminatory rate, rebate, or other special concession will be made or given to any consumer.

The supplemental agreement between TVA and KUB became effective in 2002. As part of our annual audit plan, the OIG (Office of the Inspector General) included the audit of the electric system of KUB, a distributor based in Knoxville, Tennessee, for compliance with the TVA Power Contract for the 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, KUB provided power to approximately 197,000 customers resulting in electric sales revenue of approximately \$455 million to KUB. At June 30, 2010, KUB had a 13.55 percent cash ratio before actual FY 2011 capital expenditures and a 5.03 percent cash ratio after actual FY 2011 capital expenditures, which is within TVA's established guidelines for adequate cash reserve ratios of 5 to 8 percent.

What the OIG Found

KUB was generally in compliance with two of the three key contract provisions, but we noted noncompliance related to the approved use of electric revenues. Additionally, we noted a few other minor issues regarding required documentation and information in the billing system.

- Key Contract Provisions

KUB was not in compliance with the current contract provision regarding the use of electric revenue for approved purposes. Specifically, in FY 2009, we found \$76,500 of electric system funds was deposited in an economic development account shared by the four KUB utility service divisions. Economic development is not an approved use of electric system revenues per the Power Contract. During FYs 2009 and 2010, a total of \$111,375 was disbursed from this shared economic development account and charged to an electric system operating expense account.



Audit 2010-13658 – Distributor Audit of Knoxville Utilities Board

EXECUTIVE SUMMARY

TVA management has stated they are planning to recommend the TVA Board formally approve a Use of Revenues policy that allows electric revenue to be utilized for economic development under certain circumstances. However, if this approval is not granted, we consider this use of funds to be a noncompliance issue that should be discontinued. Additionally, since KUB is required to keep the electric system general books of accounts in accordance with the Federal Energy Regulatory Commission, these type expenditures should be accounted for as donations rather than as operating expenses.

KUB was generally in compliance with the other two key contract provisions (proper reporting of electric sales and nondiscrimination in providing power), although we noted several customer account misclassifications, which KUB either addressed or is in the process of addressing.

- Other Issues
KUB could improve its compliance with other contract provisions and/or KUB's own policies by (1) obtaining and maintaining required documentation and (2) increasing accuracy of contract demand in the billing system.

We also identified two areas where TVA's oversight of distributors should be enhanced. The two issues, addressing (1) distributors using electric funds for economic development and (2) the lack of a joint-cost study, have been reported in previous OIG distributor audit reports, and TVA has agreed to take corrective action on these issues.

What the OIG Recommends

We make 6 specific recommendations in this report that require KUB action and recommend TVA's Senior Vice President, Policy and Oversight, work with KUB to resolve them. These recommendations generally relate to (1) complying with Power Contract provisions and (2) remediating classification issues. In addition, to enhance TVA's oversight of all distributors, TVA's Senior Vice President, Policy and Oversight, should address and take corrective action on two issues identified at KUB that have been reported in previous OIG distributor audit reports.

KUB and TVA Management's Comments

KUB and TVA management disagreed with our finding regarding the noncompliant use of electric system funds for economic development purposes. KUB stated it intends to continue the practice of using modest amounts of electric system funds for economic development purposes. TVA stated it does not plan to take any action prior to completion of its currently ongoing review of TVA regulatory policy and the TVA Board's action on that review.



Audit 2010-13658 – Distributor Audit of Knoxville Utilities Board

EXECUTIVE SUMMARY

KUB and TVA management generally agreed with our other recommendations, and KUB stated it has taken action on the majority of the recommendations prior to issuance of this report. See Appendix B for KUB's complete response and Appendix C for TVA's complete response.

Auditor's Response

The OIG agrees with the actions planned and taken by KUB in regards to all recommendations with the exception of the recommendation regarding the use of electric system funds for economic development. We maintain that until the TVA Board formally approves a Use of Revenues policy expressly approving distributors' use of electric funds for economic development expenses, such use is not allowed under the terms of the current Power Contract.

BACKGROUND

Knoxville Utilities Board (KUB) is a distributor for Tennessee Valley Authority (TVA) power based in Knoxville, Tennessee, with revenues from electric sales to end-use customers of approximately \$455 million in fiscal year (FY) 2010. Prior to April 1, 2011,¹ 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 KUB reported to TVA as of June 2010.

KUB's Customer Mix as of June 2010

Customer Classification	Number of Customers	Revenue	Kilowatt Hours Sold (kWh)
Residential	173,038	\$212,390,714	2,528,986,569
General Power – 50 Kilowatt (kW) and Under (Commercial)	20,388	38,420,449	397,073,896
General Power – Over 50 kW (Commercial or Manufacturing)	2,991	192,401,485	2,600,122,606
Street and Athletic	86	3,572,428	32,348,718
Outdoor Lighting ²	796	3,598,308	28,842,583
Unbilled Revenue		4,157,149	27,954,823
Total	197,299	\$454,540,533	5,615,329,195

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. KUB uses two systems, Lodestar and Customer Information System (CIS), to capture customer data. Lodestar handles billing for KUB's larger commercial customers. All Lodestar data is copied into CIS for bill presentment and reporting. CIS calculates noncomplex customer rates (residential and small commercial) and also provides the system of record for storing historical data, such as demand, consumption, credits, etc. KUB uses Lodestar/CIS to establish and set up new customers, input customer meter information, perform the monthly billing process, and maintain customer account information. Additionally, CIS provides KUB with the management reporting capabilities (e.g., exception reports) designed to ensure the accuracy and completeness of the customer invoice and the Schedule 1 to TVA. All other

¹ 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.

² The "Number of Customers" represents those customers who only have Outdoor Lighting accounts as of June 30, 2010. In addition, another 20,106 customers had Outdoor Lighting accounts as well as accounts for other services. However, the totals for "Revenue" and "Kilowatt Hours Sold (kWh)" include both categories of Outdoor Lighting customers.

accounting and finance responsibilities are handled by KUB, which has a seven-member Board of Commissioners who provide oversight and a President and Chief Executive Officer and management team who manage the daily activities. In addition to providing electric service, KUB also provides water, waste water, and gas utility services.

Granting of Authority to Set Retail Rates

In 2002, the TVA Board approved and made available to distributors six wholesale Power Contract flexibility options. One of the options terminated TVA's contract authority and obligations regarding distributors' retail rates. In 2002, KUB and TVA agreed to a wholesale Power Contract supplement that granted KUB authority to set its own retail rates. Three other distributors (Meriwether Lewis Electric Cooperative, Memphis Light, Gas and Water Division, and Scottsboro Electric Power Board) were also granted this authority by TVA. As a result, these four distributors have the authority to determine the retail rates charged to their customers with no or limited oversight by TVA. The TVA Board, however, did not relinquish the responsibility to ensure (1) the power purchased is sold and distributed to the ultimate consumer without discrimination among consumers of the same class; and (2) no discriminatory rate, rebate, or other special concession will be made or given to any consumer.

Cash Position and Rate Increases

As of June 30, 2010, KUB had \$56.9 million in cash and cash equivalents and a 13.55 percent cash ratio³ before actual FY 2011 capital expenditures. Actual capital expenditures in FY 2011 were \$35.8 million, which results in a 5.03 percent cash ratio. TVA's established guidelines for an adequate cash reserve ratio range from 5 to 8 percent. Table 2 shows the balance at June 30, 2010, for cash and cash equivalents and the corresponding cash ratios after actual FY 2011 capital expenditures.

KUB's Cash Ratio Compared to Actual FY 2011 Capital Expenditures

	Cash and Cash Equivalents at June 30, 2010	Reserve After Actual FY 2011 Capital Expenditures
Amount	\$56,940,197	\$21,140,197
Cash Ratio Percentage	13.55%	5.03%

Table 2

KUB officials stated they have a "balanced scorecard" approach to their cash philosophy. They have internal targets for a cash balance after meeting bond covenants and maintaining an appropriate debt balance. The contingency reserve fund has enough cash to meet 45 days of obligations and is recalculated each year. KUB also keeps a "rainy day" fund of \$4 million. KUB has developed a debt-management policy that is publically available.

³ TVA reviews the cash ratios of distributors as part of its regulatory rate review function. Cash ratio is calculated as follows:
$$\frac{\text{Cash + Cash Equivalents}}{\text{Total Variable Expenses (Operations and Maintenance + Purchased Power)}}$$

According to KUB records, from FYs 2006 through 2010, KUB did not have a rate increase/decrease other than passing through TVA's (1) wholesale increases in October 2008 and October 2009 and (2) Fuel Cost Adjustment amount as it was increased or decreased during the audit period.

A complete discussion of the audit objective, scope, and methodology is included as an Appendix.

FINDINGS

Our audit of TVA's Power Contract with KUB determined:

- KUB was not in compliance with the key contract provision regarding approved uses of electric revenue by disbursing electric funds for economic development and charging expenditures to an electric system operating expense account.
- KUB generally complied with the other two key contract provisions; however, we noted several customer misclassifications.
- KUB could improve compliance with other contract provisions and/or KUB policy by (1) obtaining and maintaining required documentation and (2) increasing accuracy of contract demand⁴ in the billing system.
- TVA's oversight of distributors should be enhanced.

The following provides a detailed discussion of our findings.

⁴ Demand is a measure of the rate at which energy is consumed. The demand an electric company must supply varies with the time of day, day of the week, and the time of year. Peak demand seldom occurs for more than a few hours or fractions of hours each month or year, but electric companies must maintain sufficient generating and transmission capacity to supply the peak demand. Demand charges represent the high costs electric companies pay for generating and transmission capacity that sits idle most of the time. Demand charges are based on the amount of energy consumed in a specified period of time known as a demand interval. Demand intervals are usually 15 or 30 minutes. (Engineering Tech Tips, December 2000, Dave Diezinger, Project Leader, United States Department of Agriculture Forest Service, Technology & Development Program, <http://www.fs.fed.us/eng/pubs/htmlpubs/htm00712373/index.htm>.)

For TVA distributors, the commercial and manufacturer Schedules of Rates and Charges direct that metered demand be calculated as ". . . the highest average during any 30-consecutive-minute period of the month of the load metered in kW."

USE OF ELECTRIC REVENUE FOR UNAPPROVED PURPOSES

KUB's electric system deposited \$76,500 to an economic development account shared by the four KUB utility service departments in FY 2009. From this shared economic development account, three disbursements in FY 2009 totaling \$59,925 and two disbursements in FY 2010 totaling \$51,450 (cumulative total of \$111,375) were made and charged to an electric operating expense account (Account 921000 – Administrative and General, Office Supplies and Expenses). This use of electric funds falls outside the current Power Contract provisions for approved uses. More specifically, Section 6 of the Power Contract, "Use of Revenues," defines approved uses of revenues from electric system operations, including any surplus, as: (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.

In response to a similar finding in a previous distributor audit, TVA management agreed this practice is not expressly allowed under the Power Contract. TVA management stated they plan to recommend the TVA Board formally approve a Use of Revenues policy, which would expressly approve distributors' use of electric system revenues for economic development under certain circumstances. If the TVA Board approves this policy, this practice may no longer be a violation of the Power Contract provisions. However, if this approval is not granted, we consider this to be a noncompliance issue that should be discontinued.

In addition to being an unallowable use of funds according to the Power Contract, per Section 1(b), "Schedule of Terms and Conditions," KUB is required to keep the electric system general books of accounts in accordance with the Federal Energy Regulatory Commission. Accordingly, payments or donations for charitable, social, or community welfare purposes (which, in the opinion of the Office of the Inspector General [OIG], the identified expenditures classified by KUB as economic development fall under) should be recorded in a nonoperating expense account (Account 426.1 – Donations).

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

Although KUB generally complied with these two key contract provisions, during our review of KUB's billing data, we identified two 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.⁵ The specific issues we found pertain to misclassified residential accounts.

We reviewed detailed billing data for approximately 173,000 accounts classified under the Residential Rate – Schedule RS⁶ and identified 945 accounts that appeared to be improperly classified based on the account's name (e.g., LLC, Inc., Services, Associates, Construction, etc.). From these 945 accounts, we selected a nonstatistical random sample of 200 accounts for further review. At our request, KUB reviewed the 200 accounts and determined (1) 4 accounts should have been classified under the commercial General Power Rate – Schedule GSA,⁷ (2) 128 accounts were no longer active, and (3) 68 accounts were correctly classified. The 4 misclassified accounts were for service to business offices, which do not qualify as a single-family dwelling, and KUB reclassified the accounts during the audit. The monetary impact of these 4 misclassifications would not be significant to KUB or TVA. Projection of the results was not appropriate because nonstatistical sampling was used.

In addition to our review of account names, we ran queries that identified 2,597 locations appearing to be serviced by multiple residential meters (5,657). From these 5,657 meters, we selected a nonstatistical random sample of 35 meters assigned to physical locations with two or more residential meters. By including the other residential meters at these physical locations, the sample total resulted in 74 residential meters. KUB reviewed the 74 meters and determined

⁵ Section 4, "Resale Rates," subsection (a) of the Power Contract between TVA and KUB dated May 13, 2002, 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."

⁶ 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."

⁷ 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 kW, and (b) 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.

73 were correctly classified, and 1 meter was no longer in service. According to KUB personnel, 9 of the meters were classified as residential based on state of Tennessee “sales and use tax” classification criteria. However, according to both KUB’s Retail and TVA’s Wholesale Residential Rate schedule, residential rates apply only “. . . to a single-family dwelling (including its appurtenances if served through the same meter), where the major use of electricity is for domestic purposes such as lighting, household appliances, and the personal comfort and convenience of those residing therein.” Based on these rate schedule criteria, we maintain the 9 meters representing accounts for separately metered barns or garages do not qualify as single-family dwellings or associated appurtenances and should be classified under the commercial GSA schedule. The monetary impact of these 9 misclassifications would not be significant to KUB or TVA. Projection of the results was not appropriate because nonstatistical sampling was used.

OTHER ISSUES

We identified two areas where KUB could improve compliance with other contract provisions and/or KUB policy by (1) obtaining and maintaining required documentation and (2) increasing accuracy of contract demand in the billing system.

- KUB could not provide fully executed contracts for 10 of 35 customer accounts tested that should have a contract.
- Contract demand in the billing system did not agree with the contract demand amount stated in the contract for 9 of 35 accounts tested.
- KUB could not provide the required participation agreement for 1 of 27 accounts receiving the Small Manufacturing Credit (SMC) credit.

Customer Contracts Not on File

The original Power Contract required all customers who exceed 50 kW per month to sign a formal contract. In 2002, KUB was granted authority to determine all components of its retail rates (i.e., energy usage and demand thresholds, amounts to charge, etc.). After TVA increased the threshold for requiring a customer contract to accounts exceeding 1 megawatt (in February 2011), KUB increased its customer contract requirement to accounts exceeding 500 kW. Each customer contract includes a contract demand that is used in placing the account in the correct classification. Contract demand is also used in calculating the account’s billed demand and minimum bill in addition to determining the correct rate classification; therefore, having the required contract documentation is necessary to support the classification assigned and the rates charged.

To determine compliance with KUB’s policy, we selected a nonstatistical random sample of 35 customer accounts from the 235 accounts (14.9 percent) that should have a contract. We found 10 of these 35 accounts (28.6 percent) did not have a

fully executed contract for either a portion of or the entire audit period. As a result of our audit, KUB (1) obtained or is in the process of obtaining contracts for 3 of these accounts and (2) will not get contracts for 3 other accounts because the account is either no longer active or has not exceeded KUB's demand threshold requirement for customer contracts since the audit period. For the remaining 4 accounts, 1 account had an unsigned contract for the audit period, and 3 accounts did not have a contract for either a portion of or the entire audit period; however, KUB was able to provide a current contract for these 3 accounts. Projection of the results was not appropriate because nonstatistical sampling was used.

Inaccuracy of Contract Demand Information in Billing System

In our sample of 35 accounts that should have a contract, we found contract demand in the billing system was missing or did not agree with the contract demand stated in the contract during a portion of or the entire audit period for 9 accounts (25.7 percent). As a result of our audit, KUB corrected the contract demand in the system for 5 of these accounts. KUB could not provide a fully executed contract for a portion of the audit period for 1 other account, so we could not verify the contract demand in the system was correct for that period. However, a fully executed copy of the current contract was provided, and we noted the contract demand amount in the system agrees with the contract. For the remaining 3 accounts, KUB informed us the contract demand in the system did not need to be corrected because the account is either no longer active or has not exceeded KUB's demand threshold requirement for contracts since the audit period. Projection of the results was not appropriate because nonstatistical sampling was used.

Verifying all components applicable to an account have been entered into the billing system accurately in accordance with the supporting documentation is necessary for each account to (1) be properly classified; (2) have energy, demand, minimum bill charges, and applicable credits calculated correctly; and (3) receive credits as appropriate.

Required SMC Documentation Not on File

KUB could improve contract compliance by consistently obtaining and maintaining required SMC documentation. According to the SMC agreement between KUB and TVA, the distributor shall obtain a signed application form from each customer indicating the applicable Standard Industrial Classification code and certifying the customer's eligibility to receive the credit. KUB did not have the required application form on file for 1 of the 27 participants (3.7 percent) receiving the SMC. We noted the other eligibility requirements were met for these customers.

TVA OVERSIGHT OPPORTUNITIES

We identified two areas where TVA's oversight of distributors should be enhanced. The two issues addressing (1) distributors using electric funds for economic development and (2) the lack of a joint cost study every 3 to 4 years or when a significant change occurs in accordance with the TVA Accountant's Reference Manual have been reported in previous OIG distributor audit reports. TVA has agreed to take corrective action on these issues. A full discussion of the previously reported issues and TVA's planned actions can be found in prior OIG distributor audit reports⁸ on our Web site, www.oig.tva.gov.

RECOMMENDATIONS

We make 6 specific recommendations in this report that require KUB action and recommend TVA's Senior Vice President, Policy and Oversight, work with KUB to resolve them. These recommendations generally relate to (1) complying with Power Contract provisions and (2) remediating classification issues. Specifically, KUB should address the following recommendations associated with the findings described previously in this report.

Use of Electric Revenue for Unapproved Purposes

1. Discontinue the practice of using electric funds for economic development unless the TVA Board formally approves a Use of Revenues policy that expressly approves distributors' using electric funds for economic development expenses under certain circumstances.

KUB's Response – KUB stated it supports the TVA Board taking action to adopt a Use of Revenues policy or to modify distributors' power supply contracts to expressly approve use of electric system funds for economic development purposes. However, KUB also stated it intends to continue the practice of using modest amounts of electric system funds for economic development purposes for the following reasons: (1) the number and dollar value of KUB's economic development transactions are immaterial to the electric system; (2) the expenses promote growth in the community; and (3) TVA often encourages and matches said expenses. See Appendix B for KUB's complete response.

TVA Management's Comments – TVA management stated they do not agree with the recommendation to the extent it recommends changing TVA's position on economic development expenditures prior to completion of the currently ongoing review of TVA regulatory policy and the TVA Board's action on that review. However, TVA management agreed it would be good for the TVA Board to formally approve a Use of Revenues policy, which contains

⁸ 2010-13659 – Distributor Audit of Meriwether Lewis Electric Cooperative dated March 22, 2012; 2008-12036 – Distributor Review of City of Oxford Electric Department dated August 31, 2009.

clearer standards regarding when TVA will approve using distributor electric system funds for economic development expenses under certain circumstances. See Appendix C for TVA's complete response.

Auditor's Response –The OIG maintains that until the TVA Board formally approves a Use of Revenues policy (as recommended by the OIG in May 2009) that expressly approves distributors using electric funds for economic development expenses under certain circumstances, such use is not allowed under the terms of the current Power Contract.

2. Properly account for economic development expenditures as nonoperating expenses in Account 426.1 (Donations).

KUB's Response – KUB agreed with the recommendation. KUB stated current FY economic development expenses have been reclassified as nonoperating expenses under Account 426.1, as defined by the Federal Energy Regulatory Commission, and future economic development expenses will be accounted for in the same manner. See Appendix B for KUB's complete response.

TVA Management's Comments – TVA management agreed with the recommendation to the extent that the expenses were charitable and made in the course of being a good corporate citizen and should be classified in Account 426.1 (Donations). However, TVA management views reasonable economic development expenditures as providing a benefit to the electric system by way of promoting or retaining the use of utility services by present and prospective customers that should be classified in Account 912 (Demonstrating and Selling Expenses). See Appendix C for TVA's complete response.

Auditor's Response – The OIG agrees with the actions taken by KUB.

Improper Reporting of Electric Sales and/or Potential Discrimination in Providing Power to Customers

3. Review and modify process(es) in place to identify all residential accounts that should be commercial and reclassify as appropriate.

KUB's Response – KUB agreed with the recommendation. KUB stated it has reviewed its controls and implemented additional queries within its customer billing system to appropriately identify customer accounts. KUB also stated accounts identified during the audit have been reclassified appropriately. See Appendix B for KUB's complete response.

TVA Management's Comments – TVA management stated TVA has no legal basis for correcting misclassifications except for potential discrimination in retail billing since the Power Contract was amended in 2002. With respect

to wholesale billing, TVA management plans to further investigate and make sure KUB has not improperly received any wholesale hydro credits. See Appendix C for TVA's complete response.

Auditor's Response – The OIG agrees with the actions taken by KUB.

Other Issues

4. Obtain and maintain properly executed effective customer contracts for all customers with demand in excess of 500 kW in accordance with KUB policy.

KUB's Response – KUB agreed with the recommendation. KUB stated all customer accounts that exceed the 500 kW demand threshold have been reviewed, and KUB is in the process of contacting those customers to acquire any required demand contracts. KUB also stated that additional processes have been initiated to actively monitor accounts for any customers who may exceed the 500 kW demand threshold. See Appendix B for KUB's complete response.

TVA Management's Comments – TVA management stated TVA has no legal basis for enforcing the written contract requirement unless there is indication KUB is engaging in discrimination since the Power Contract was amended in 2002. TVA management also stated they have seen no evidence of KUB discrimination that would merit TVA action. See Appendix C for TVA's complete response.

Auditor's Response – The OIG agrees with the actions taken by KUB.

5. Review and modify the process for entering customer contract demand into the billing system to verify (a) only customers with a fully executed contract have a contract demand value in the billing system, and (b) the contract demand value in the system agrees with the customer's contract.

KUB's Response – KUB agreed with the recommendation. KUB anticipates that all demand contracts will be in place by September 30, 2012, and has reviewed its current processes, implementing improvements to strengthen its controls over data entry and contract management. See Appendix B for KUB's complete response.

TVA Management's Comments – TVA management agreed with the recommendation and stated the distributor should have good internal controls to verify data is entered correctly into the system, especially as the data entry might impact TVA wholesale billing. See Appendix C for TVA's complete response.

Auditor's Response – The OIG agrees with the actions planned and taken by KUB.

6. Obtain and maintain required documentation for customers receiving credits under the TVA SMC program.

KUB's Response – KUB agreed with the recommendation. KUB stated contracts are in place for all customers receiving credits under the TVA SMC program, and a monthly query to ensure that all customers receiving credits have the appropriate documentation on file has been implemented. See Appendix B for KUB's complete response.

TVA Management's Comments – TVA management agreed with the recommendation and stated the distributor should have documentation for customers receiving credits under the TVA SMC program. See Appendix C for TVA's complete response.

Auditor's Response – The OIG agrees with the actions taken by KUB.

OBJECTIVE, SCOPE, AND METHODOLOGY

This audit was included in our annual distributor audit plan based on our review of several factors including the distributor's percentage of electric sales revenue, cash ratio, joint operations, SAS 70 review results, and surplus ratio. The objective was to determine compliance with key provisions of the Power Contract between the Tennessee Valley Authority (TVA) and Knoxville Utilities Board (KUB) and not to assess the distributor's or TVA's system of internal controls. Therefore, controls associated with contract provisions listed below were not tested as part of this audit. The key contract provisions include:

- 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
 - Reasonable reserves for renewals, replacements, and contingencies

To achieve our objective, we:

- Obtained electronic billing data for the audit period and created a database for use in performing analytical testing. 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 the billing data to identify classification, metering, and contract compliance issues. We reviewed results of the queries and where possible exceptions were identified, selected accounts for further analysis and follow up to determine whether misclassification, metering issues, or noncompliance with contract requirements occurred. Where large numbers of potential exceptions were identified, we selected accounts for further analysis and followed up using nonstatistical samples. Projection of the results was not appropriate because nonstatistical sampling was used.
 - When performing our analysis of residential accounts, we used the detailed billing data and:
 - Isolated accounts classified as residential that contained words in the account name commonly used to refer to business entities (e.g., LLC, partner, Inc., etc.). As a result of this review, we identified 945 possible exceptions from the population of approximately 173,000 residential accounts. Due to the large number of potential exceptions, we assigned numbers to the 945 accounts and used a random number generator to select a nonstatistical sample of 200 accounts (21.2 percent) to have distributor personnel review for accurate classification. Because our sample was nonstatistical, we could not project the number of misclassifications to the population based on our results.

OBJECTIVE, SCOPE, AND METHODOLOGY (cont.)

- Ran an automated query to identify any physical locations with multiple meters classified as residential at the location. Our analysis identified 2,597 locations with multiple residential meters, for a total of 5,657 residential meters, from the population of approximately 173,000 residential accounts. We assigned numbers to the 5,657 meters and used a random number generator to select a nonstatistical sample of 35 meters (0.6 percent) for additional review and follow up with the distributor. The physical locations for these 35 meters had a total of 74 meters assigned to them that were classified as residential accounts.
- When reviewing general schedule accounts, we used the detailed billing data obtained from the distributor and isolated 235 accounts with contract demand values in the billing system greater than or equal to 500 kW. We assigned numbers to the 235 locations and used a random number generator to select a nonstatistical sample of 35 locations (14.9 percent) for additional review and follow up with the distributor.
- Determined through inquiry and review of documentation whether KUB had any nonelectric, system-related business interests supported by electric system funds.
- Obtained disbursements listing for the audit period and categorized the disbursements by vendor name. We reviewed and analyzed disbursements to identify instances where electric system funds may have been used for purposes not allowed under the TVA Power Contract. We judgmentally selected a sample of 167 vendor names from the population of 1,418 vendors based on the vendor name and/or payment amounts. We focused on names that (1) had nonelectric service in the title [e.g., water, gas, etc.]; (2) could require allocation between multiple service departments [e.g., advertising, fuel, consultants, legal, etc.]; (3) possibly should not have been paid from electric funds [e.g., community assistance, charitable contributions, economic development, etc.]; and (4) were paid to employees or board members. We focused on payment amounts where (1) singular large payments were made to one entity or (2) the payments in total were considered large either by themselves or compared to total disbursements for the audit period. We then selected 75 individual transactions from the list of 167 vendor names and reviewed the detailed documentation. Projection of the results was not appropriate because nonstatistical sampling was used.
- Reviewed cash and cash equivalents in relation to actual 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(s) to be considered in determining an item's significance were as follows:

- 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 \$11,942,230.24, 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 between July 2011 and March 2012 and included visiting the distributor's corporate office in Knoxville, 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 the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.



Knoxville Utilities Board

May 18, 2012

Mr. David P. Wheeler
Deputy Assistant Inspector General (Audits)
Office of the Inspector General
Tennessee Valley Authority
400 West Summit Hill Drive
Knoxville, TN 37902-1401

Re: Knoxville Utilities Board Response to Distributor Audit (2010-13658)

Mr. Wheeler:

The following constitutes Knoxville Utilities Board's response to the specific recommendations of the Office of the Inspector General for the Distributor Audit:

Recommendation: Discontinue the practice of using electric funds for economic development unless the TVA Board formally approves a use of revenues policy that expressly approves distributors' using electric funds for economic development expenses under certain circumstances.

Response: *KUB supports the TVA Board taking action to adopt a Use of Revenues Policy or to modify distributors' power supply contracts to expressly approve use of electric system funds for economic development purposes. Notwithstanding such action by the TVA Board, KUB intends to continue the practice of using modest amounts of electric system funds for economic development purposes for the following reasons: (1) the number and dollar value of KUB's economic development transactions are immaterial to the electric system; (2) the expenses promote growth in our community; and (3) TVA often encourages and matches said expenses.*

Recommendation: Properly account for economic development expenditures as non-operating expenses in Account 426.1 (Donations).

Response: *KUB agrees with the recommendation. KUB has reclassified current fiscal year economic development expenses as non-operating expenses under Account 426.1, as defined by FERC, and will account for future economic development expenses in the same manner.*

Recommendation: Review and modify processes in place to identify all residential accounts that should be commercial and reclassify as appropriate.

Response: *KUB agrees with the recommendation. KUB has reviewed its controls and implemented additional queries within its customer billing system to appropriately identify customer accounts. Accounts identified during the audit have been reclassified appropriately.*

Electricity • Gas • Water • Wastewater

P.O. Box 59017 • Knoxville, TN 37950-9017 • (865) 524-2911 • www.kub.org

Mr. David P. Wheeler
Page 2
May 15, 2012

Recommendation: Obtain and maintain properly executed effective customer contracts for all customers with demand in excess of 500 kW in accordance with KUB policy.

Response: *KUB agrees with the recommendation. KUB has reviewed all customer accounts that exceed the 500 kW demand threshold and is in the process of contacting those customers to acquire any required demand contracts. Additional processes have been initiated to actively monitor accounts for any customers who may exceed the 500 kW demand threshold. KUB anticipates that all contracts will be in place by September 30, 2012.*

Recommendation: Review and modify the process for entering customer contract demand into the billing system to verify (a) only customers with a fully executed contract have a contract demand value in the billing system, and (b) the contract demand value in the system agrees with the customer's contract.

Response: *KUB agrees with the recommendation. As noted in the response above, KUB anticipates that all demand contracts will be in place by September 30, 2012 and has reviewed its current processes, implementing improvements to strengthen its controls over data entry and contract management.*

Recommendation: Obtain and maintain required documentation for customers receiving credits under the TVA Small Manufacturing Credit program.

Response: *KUB agrees with the recommendation. KUB now has all contracts in place for customers receiving credits under the TVA Small Manufacturing Credit program and has implemented a monthly query to ensure that all customers receiving credits have the appropriate documentation on file.*

We appreciate the time and efforts of your staff in their review of KUB's compliance with the TVA power contract. If I can be of additional assistance, please feel free to contact me.

Sincerely,



Mintha E. Roach
President and CEO

c: Joseph J. Hoagland, Sr. Vice President, Policy and Oversight, TVA



TVA SENSITIVE INFORMATION

May 21, 2012

David P. Wheeler, ET 3C-K

RESPONSE TO DRAFT AUDIT REPORT 2010-13658 – DISTRIBUTOR AUDIT OF
KNOXVILLE UTILITIES BOARD

This is in response to your memorandum to Joseph Hoagland dated March 20, 2012.

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

Use of Electric Revenue for Unapproved Purposes

1. Discontinue the practice of using electric funds for economic development unless the TVA Board formally approves a use of revenues policy that expressly approves distributors' using electric funds for economic development expenses under certain circumstances.
 - TVA management does not agree with this recommendation to the extent it recommends changing TVA's position on economic development expenditures prior to the completion of the currently ongoing review of TVA regulatory policy and the Board's action on that review.
 - Similar to the rationale by which TVA itself spends power funds for economic development benefiting the TVA power system and all ratepayers, TVA has long recognized that where a distributor appropriately determines that economic development expenditures of electric system funds are likely to produce a commensurate benefit to the distributor electric system and thus its ratepayers, it is not inappropriate for those expenses to be included in the operating expenses of the distributor electric system. Although there has never been any formal Board action on standards for such distributor economic development arrangements, there has been informal coordination with the Board of TVA consent to such distributor arrangements.
 - TVA management does agree that it would be good for the Board to formally approve a Use of Revenues policy which contains clearer standards regarding when TVA will approve of using distributor electric system funds for economic development expenses under certain circumstances. In the interim, TVA will continue to interpret and apply the Power Contract as allowing economic development expenses as benefiting the electric system.

David P Wheeler
Page 2
May 21, 2012

- Actions taken or planned and completion dates: TVA management plans to recommend to the Board to formally approve a Use of Revenues policy which contains clearer standards regarding when TVA will approve distributor use of electric system funds for economic development expenses. Target completion date is March 2013.
2. Properly account for economic development expenditures as nonoperating expenses in Account 426.1 (Donations).
- TVA management agrees with the recommendation to the extent that these expenses are charitable and made in the course of a Distributor being a good corporate citizen, these expenses should be classified in account 426.1 (Donations). KUB has determined that their current classified economic development expenses should be classified under account 426.1, the definition of which in the Federal Energy Regulatory Commission Uniform System of Accounts should only include "payments or donations for charitable, social or community welfare purposes." However, to the extent a distributor has reasonable economic development expenditures, TVA does not view these expenditures as significantly serving welfare purposes; rather TVA views such economic development expenditures as providing a benefit to the electric system by way of promoting or retaining the use of utility services by present and prospective customers. TVA management views accounts provided under section 912 (Demonstrating and selling expenses) as the most proper account in which to account for economic development expenditures.
 - See also the response to number 1 above.
 - Actions taken or planned and completion dates: TVA will review the Distributor's economic development expenses and discuss classifying donations in account 426.1 and reasonable economic development expenditures in account 912. Target completion date is May 2013.

Improper Reporting of Electric Sales and/or Potential Discrimination in Providing Power to Customers

3. Review and modify process (es) in place to identify all residential accounts that should be commercial and reclassify as appropriate.
- The Schedule of Rates and Charges to the TVA/KUB Power Contract has not contained retail rate schedules since that Power Contract was amended in 2002 by a resale rate flexibility agreement. Therefore, TVA has no legal basis for correcting these misclassifications except for potential discrimination in retail billing. However, we understand that for the business accounts identified as being improperly classified as residential, KUB is correcting these misclassifications to comply with their own policy on rate classifications and thus TVA management plans to take no further action with respect to the potential discrimination in retail billing. With respect to wholesale billing, TVA management plans to further investigate as described below to make sure that KUB has not improperly received any wholesale hydro

David P Wheeler
Page 3
May 21, 2012

credits.

- Neither the KUB residential rate schedule nor any other KUB retail rates have been a part of the Schedule of Rates and Charges to the TVA/KUB Power Contract since that Power Contract was amended in 2002 by a resale rate flexibility agreement. Therefore, KUB is free to interpret and/or change its retail rate classifications and TVA has no legal basis upon which it could challenge KUB's actions in this regard.
- However, what KUB may not do under the Power Contract, even as amended by the flexibility agreement, is receive wholesale hydro credits for any residential appurtenances that are served through a separate meter from the residence. TVA management thus plans to further investigate to ensure that KUB is not receiving any wholesale hydro credits improperly.
- Actions taken or planned and completion dates: If it is determined that KUB has underpaid at wholesale due to any such improper application of hydro credits, TVA management will seek prompt resolution of the underbilling.

Other Issues

4. Obtain and maintain properly executed effective customer contracts for all customers with demand in excess of 500 kW in accordance with KUB policy.
 - See the response to number 3 above.
 - The Schedule of Rates and Charges to the TVA/KUB Power Contract has not contained retail rate schedules since that Power Contract was amended in 2002 by a resale rate flexibility agreement. Therefore, TVA has no legal basis of enforcing the written contract requirement absent a showing that KUB is engaging in discrimination. We have seen no evidence of KUB discrimination that would merit any TVA action. However, we understand that KUB has agreed to have these contracts in place to comply with their policy regarding signed customer contracts.
5. Review and modify the process for entering customer contract demand into the billing system to verify (a) only customers with a fully executed contract have a contract demand value in the billing system, and (b) the contract demand value in the system agrees with the customer's contract
 - TVA management agrees that the distributor should have good internal controls to verify that data is entered correctly into the system, especially as that data entry might impact TVA wholesale billing.
 - Actions taken or planned completion dates: TVA management understands that Distributor will review its process to see if any improvements are needed to verify and enter contract demand. Target completion date is May 2013.
6. Obtain and maintain required documentation for customers receiving credits under the TVA SMC program.

David P Wheeler
Page 4
May 21, 2012

- TVA management agrees that the distributor should have documentation for customers receiving credits under the TVA SMC program.
- Action taken or planned and completion dates: TVA management understands that Distributor has obtained documentation for customers that receive credits under the TVA SMC program.

Veenita Bisaria for Cindy Herron

Veenita Bisaria on behalf of
Cynthia L Herron
Director
Retail Regulatory Affairs
OCP 1B NST

VB: AMM

cc:

Robbie Ansary, CSC 1A-GRT
Joseph J. Hoagland, WT 7B-K
John P. Kernodle, WT 6A-K
Richard W. Moore, ET 4C-K
Ronald J. Owens, SP-3A-C
Michael L. Scalf, CSC 1A-GRT
John M. Thomas III, MR 6D-C
Diane Wear, WT 4B-K
Van M. Wardlaw, OCP 1N-NST
Robert B. Wells, WT 9B-K
EDMS