



Memorandum from the Office of the Inspector General

September 28, 2009

Kimberly S. Greene, WT 7B-K

**REQUEST FOR FINAL ACTION – INSPECTION 2008-12039 – DISTRIBUTOR REVIEW
OF HICKMAN-FULTON COUNTIES RURAL ELECTRIC COOPERATIVE CORPORATION**

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, please contact Andrea L. Williams, Senior Auditor, at (865) 633-7375 or Jill M. Matthews, Deputy Assistant Inspector General, Audits and Support, at (865) 633-7430. We appreciate the courtesy and cooperation received from your staff during the audit.

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

ALW:SDB
Attachment
cc (Attachment):

Peyton T. Hairston, Jr., WT 7B-K
Tom D. Kilgore, WT 7B-K
John E. Long, Jr., WT 7B-K
Richard W. Moore, ET 4C-K
Emily J. Reynolds, OCP 1L-NST
John M. Thomas III, WT 4B-K
John G. Trawick, WT 3D-K
OIG File No. 2008-12039



Tennessee Valley Authority
Office of the Inspector General

Inspection Report

DISTRIBUTOR REVIEW OF HICKMAN-FULTON COUNTIES RURAL ELECTRIC COOPERATIVE CORPORATION

Audit Team

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2008-12039
September 28, 2009

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TVA Office of the Inspector General

September 2009

Inspection 2008-12039 Hickman-Fulton Counties Rural Electric Cooperative Corporation

Why the OIG Did This Review

The OIG performed a review of Hickman-Fulton Counties Rural Electric Cooperative Corporation (Hickman-Fulton), which is a distributor of TVA power based in Hickman, Kentucky, with annual revenues of approximately \$9.1 million in fiscal year 2008. TVA relies on distributors to self-report customer usage and subsequently the amount owed to TVA (Schedule 1). Customers are generally classified as residential, commercial, and manufacturing. Within these classifications are various rate classes based on the customer type and usage.

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

What the OIG Recommends

We recommend the Chief Financial Officer (CFO) work with Hickman-Fulton to (1) develop and implement a process to test in-house any meters identified during independent testing with a power factor below 85 percent and install demand meters that measure kVA as needed and (2) ensure all customers with appurtenances¹ used for commercial operations are metered the same. In addition, the CFO should establish guidance for distributors on allowable appurtenances and at what point in time the use must be predominately residential to qualify for a residential rate.

In separate reports issued on other distributors in May 2009, TVA responded to and provided an action plan for findings related to (1) contracts for customers whose demand exceeds 50 kW and (2) guidance for distributors on what constitutes prudent expenditures.

TVA and Hickman-Fulton management agreed and are taking actions to address one recommendation. TVA and Hickman-Fulton management disagreed with the recommendation related to ensuring all customers with appurtenances are metered the same. Additionally, TVA management disagreed with the recommendation to provide additional guidance to distributors on appurtenances. See Appendices for complete responses.

For more information, contact Andrea Williams, Senior Auditor, at (865) 633-7375 or Jill Matthews, Deputy Assistant Inspector General, Audits and Support, at (865) 633-7430.

What the OIG Found

Our review of Hickman-Fulton found no material issues related to use of revenues for approved purposes. However, we found improvements were needed in the following areas:

- **Metering**—We identified metering issues that could result in (1) inaccurate billing of electric sales by the distributor to their customers and therefore, impact the electric sales reported on the distributor's financial reports to TVA and (2) disparate treatment among similarly situated customers that could be construed, under Section 5 Resale Rates of the power contract, as discrimination in providing power to members of the same rate class. We were unable to estimate the monetary effect because sufficient information was not available. Specifically, we noted:
 - Independent meter testing in 2008 identified 18 meters with power factors below 85 percent. Customers with a power factor below 85 percent are required to have a demand meter that measures kVA installed to correctly calculate demand charges on the monthly bill. At the time of this report, Hickman-Fulton still had 16 customers which needed demand meters that measure kVA.
 - A customer with a seasonal commercial grain bin metered with the residence. Although this is allowed by the Residential Retail Rate Schedule as long as the majority of usage is residential, other customers with seasonal commercial structures were separately metered and billed at a commercial rate which results in a separate higher customer charge and, if applicable, additional charges for demand. For one month of the year, the majority of the usage by this customer was attributable to commercial use.
- **Contract Compliance**—Hickman-Fulton's contract with TVA requires it to have contracts with all customers whose demand is greater than 50 kW. Our review found required contracts for Hickman-Fulton customers with demand greater than 50 kW were not in place for all customers.

In addition, we found Hickman-Fulton had more than enough cash on hand to fund planned capital projects and provide a cash reserve. The cash reserve after planned capital projects was about 6 percent which was within the guidelines (cash ratio of 5 percent to 8 percent) TVA established to determine if a distributor has adequate cash reserves.

- As of June 30, 2008, Hickman-Fulton reported about \$983,000 in cash and cash equivalents and planned capital expenditures of about \$501,000, leaving cash reserves of about \$482,000; however, an ice storm in January 2009 caused extensive damage to the distributor's system that consumed most of the cash reserves and necessitated a loan of \$12 million.

Finally, we also identified opportunities to enhance TVA oversight of the distributors. Specifically, TVA has not provided guidance for distributors on (1) what types of appurtenances¹ are allowed or at what point in time the use must be predominately residential and (2) what constitutes prudent expenditures.

¹ For purposes of the power contract, an appurtenance is property, like another building, that is on the same property. Webster's legal definition states an appurtenance is property (as an outbuilding or fixture) or a property right (as a right of way) that is incidental to a principal property and that passes with the principal property upon sale or transfer.

BACKGROUND

The Hickman-Fulton Counties Rural Electric Cooperative Corporation (Hickman-Fulton) is a distributor for the Tennessee Valley Authority (TVA) power based in Hickman, Kentucky, with revenues from electric sales of approximately \$9.1 million in fiscal year (FY) 2008. TVA relies on distributors to self-report customer usage and subsequently the amount owed to TVA (Schedule 1). Customers are generally classified as residential, commercial, and manufacturing. Within these classifications are various rate classes based on the customer type and usage. Table 1 shows the customer mix for Hickman-Fulton as of June 2008.

Hickman-Fulton's Customer Mix as of June 2008

Customer Classification	Number of Customers	Revenue	Kilowatt Hours Sold
Residential	2,925	\$4,690,038	47,909,627
General Power – 50 kW and Under (Commercial)	758	752,789	6,445,446
General Power – Over 50 kW (Commercial or Manufacturing)	86	3,512,983	43,384,189
Street and Athletic	2	2,131	20,634
Outdoor Lighting ¹	0	139,770	1,294,962
Total	3,771	\$9,097,711	99,054,858

Table 1

The distributors are required to establish control processes over customer setup, rate application, and measurement of usage to ensure accurate and complete reporting to TVA. Hickman-Fulton, like many other distributors, outsources its billing and invoice processing to a third-party processor, Southeastern Data Corporation (SEDC).² It uses SEDC systems to establish and set up new customers, input customer meter information, perform the monthly billing process, and execute customer account maintenance. All other accounting and finance responsibilities are done by Hickman-Fulton, which has a Board of Directors providing oversight and a general manager managing the daily activities. Hickman-Fulton does not have any nonelectric business interests.

¹ This customer count represents those customers who only have Outdoor Lighting accounts with Hickman-Fulton. Another 1,542 customers at June 30, 2008, had outdoor lighting accounts with Hickman-Fulton as well as accounts for other services. The kilowatt hours sold include all kilowatt hours for all accounts.

² Hickman-Fulton used National Information Solutions Cooperative as the third-party processor during the audit period. It switched to SEDC in the fall of 2008 and converted all its data into the SEDC system at that time. All billing data examined in the review was provided by SEDC.

OBJECTIVE, SCOPE, AND METHODOLOGY

This review 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 Hickman-Fulton, 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; and
 - Reasonable reserves for renewals, replacements, and contingencies.

To achieve our objective, we:

- Documented and assessed the controls over new customer account setup and master file maintenance.
- Documented and tested the procedures and controls in place to ensure proper sales cutoff.
- Documented and tested the procedures and controls in place to ensure complete and accurate invoicing of payments to TVA.
- Determined through inquiry and review of documentation whether Hickman-Fulton had any nonelectric, system-related business interests supported by electric system funds.
- Reviewed disbursements to determine if electric system funds were used for any items not allowed under the TVA power contract.
- Reviewed cash and cash equivalents in relation to planned capital expenditures and other business uses of cash.
- Used nonstatistical sampling methods as needed to perform the tests above.

The scope of the review was for the period July 2006 through June 2008. Fieldwork was conducted in September and October 2008 and follow-up fieldwork was conducted in March, May, and July 2009. This review was conducted in accordance with the "PCIE Quality Standards for Inspections."

FINDINGS

Our review of Hickman-Fulton found no material issues related to use of revenues for approved purposes. However, we found improvements were needed in certain areas. Specifically, we found (1) metering issues that could result in (a) inaccurate billing of electric sales by the distributor to their customers and therefore, impact the electric sales reported on the distributor's financial reports to TVA and (b) disparate treatment among similarly situated customers that could be construed, under Section 5 Resale Rates of the power contract, as discrimination in providing power to members of the same rate class and (2) a lack of compliance with contract provisions related to customers with demand greater than 50 kW.

In addition, we found at June 30, 2008, Hickman-Fulton had more than enough cash on hand to fund planned capital projects and provide a cash reserve. The cash reserve after planned capital projects was about 6 percent which was within the guidelines (cash ratio of 5 percent to 8 percent) TVA established to determine if a distributor has adequate cash reserves. However, an ice storm in January 2009 caused extensive damage to the distributor's system that consumed most of their cash reserves and necessitated a loan of \$12 million. Finally, as we explain later, there are certain opportunities to enhance TVA oversight of the distributors.

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

As discussed below, we identified issues involving the metering of customers which could impact the billing of electric sales by the distributor to their customers and therefore, the electric sales reported on the distributor's financial reports to TVA. In addition, one of these issues impact the ability to ensure nondiscrimination in providing power to members of the same rate class as provided for in Section 5 Resale Rates subsection (a) of the power contract between TVA and Hickman-Fulton which states that "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 were unable to estimate the monetary effect because sufficient information was not available.

- In 2008, independent meter testing was conducted which identified several metering-related issues the distributor is still resolving. Testing identified:
 - Eighteen GSA customers whose power factor fell below 85 percent. According to the power contract, customers whose power factor falls

below 85 percent require a demand meter which measures kVA³ to properly determine demand⁴ charges on the customer bill. Currently, two of the 18 customers have this type of demand meter installed at their location. According to the Hickman-Fulton engineer, these customers' demand meters do not measure kVA. In addition, the distributor does not currently have a process to test these meters outside of independent testing; however, Hickman-Fulton management stated they would be developing and implementing a process for in-house testing on the 16 meters to determine if the independent meter testing results were accurate and, if so, installing a demand meter which measures kVA at the customer's location. While the lack of a kVA measurement would not impact wholesale information reported on the Schedule 1⁵, this could impact demand charges billed to the distributor's customers and therefore, electric sales stated on the distributor's financial reports to TVA. However, without a kVA measurement to compare to metered demand, we could not estimate the monetary impact of this issue.

- One GSA, part 1 commercial customer's meter was not measuring consumption. According to the Hickman-Fulton business manager, the customer's meter was replaced, and the customer was backbilled in June 2009 using estimated power usage based on historic data. The business manager also stated that an adjustment will be made to the subsequent TVA Schedule 1 to reflect the incorrect usage due to the bad meter reported in previous months. Hickman-Fulton is currently working with TVA personnel to add the information to the Schedule 1.
- One GSA, part 1 commercial customer's meter multiplier in the system differed from the meter multiplier identified during independent testing. The billing system reflected a meter multiplier of 1 for the customer and independent testing identified the multiplier as 40. This resulted in the customer only being billed for 1/40th of their actual consumption. According to the Hickman-Fulton business manager, the customer was backbilled in June 2009 for the error, and the subsequent TVA Schedule 1

³ A volt-ampere (VA) is the measure of apparent power, or the total power in an AC circuit. The practical unit of apparent power is the kilovolt-ampere (kVA). Real power, measured in watts, is the actual power used by the load. The power factor is obtained by dividing the real power by the apparent power.

For billing purposes, a customer's monthly billed demand is determined to be "the higher of the highest average during any 30-consecutive-minute period of the month of (a) the load metered in kW or (b) 85 percent of the load in kVA plus an additional 10 percent for that part of the load over 5,000 kVA."

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.

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."

⁵ Monthly metered demand readings in kilowatts are included on the Schedule 1. KVA is used only to determine the monthly demand charge billed to the customer.

will be adjusted for the error. Hickman-Fulton is currently working with TVA personnel to add the information to the Schedule 1.

- We also found one customer with a grain bin used seasonally for a commercial farming business which was metered and billed with the customer's residence. Under the Residential Retail Rate Schedule within the power contract, appurtenances are allowed to be metered and billed with a residence as long as the majority of use is for residential purposes. We found the customer's usage was predominately nonresidential for one month in FY 2007 and one month in FY 2008 when the grain bin was in use. Specifically, the usage for the grain bin when in operation was estimated at 57 percent of the total monthly usage for 2007 and 70 percent for 2008. We noted eight other Hickman-Fulton seasonal customers with nonresidential structures that were treated differently. These eight were metered separately from the residence and billed at a commercial rate using the General Power Rate – Schedule GSA;⁶ thus, they would incur a higher customer charge and, if the customer's demand exceeds 50 kW, demand charges in addition to energy usage charges.

CONTRACT COMPLIANCE ISSUES

Our review noted Hickman-Fulton was not following the requirements of the power contract with TVA. Specifically, we found contracts were generally not in place for customers whose power demand exceeds 50 kW in a month. Under Hickman-Fulton's contract with TVA, all customers that exceed 50 kW monthly are required to sign a formal contract. According to Hickman-Fulton management, this requirement has not been enforced by TVA, and currently only the largest 4 customers of the 64 customers with demand over 50 kW have contracts. The contract includes a contract demand which is used in placing the customer in the correct classification. For example, a customer becomes a GSA Part 2 when either (1) the customer's currently effective contract demand or its highest billing demand during the latest 12-month period is more than 50 kW but less than 1,000 kW or (2) the customer's billing demand is less than 50 kW and its energy takings for any month during such period exceed 15,000 kWh. Contract demand is also used in calculating the customer's billed demand and minimum bill.

⁶ Under the General Power Rate – Schedule GSA between Hickman-Fulton and TVA, customers are classified as GSA Part 1, GSA Part 2, or GSA Part 3 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.

In a separate report on another distributor issued in May 2009, we recommended the distributor review management reports listing customers that are above 50 kW without a contract and work with these customers to obtain signed contracts. TVA agreed the Schedule of Rates and Charges requires distributors to obtain contracts with all customers whose actual or contract demand exceeds 50 kW. However, TVA did not agree with our recommendation to review management reports listing customers that are above 50 kW without a contract and work with these customers to obtain signed contracts. Rather, TVA management prefers to adjust the threshold since the current threshold of 50 kW was established in 1963 and has not been updated, and putting contracts in place with all small commercial customers is a time-consuming and difficult task which may provide little benefit for distributors or the TVA system. TVA management has said it will recommend to the Board that a new and higher threshold be established as part of the rate change process with the distributors. When the rate change is put into effect, all retail customers above the new threshold would be expected to have executed contracts. Target completion date will coincide with the rate change efforts that are currently under way with the distributors and is expected to be in place by October 2010.

USE OF ELECTRIC SYSTEM REVENUES

Under the TVA power contract, approved uses of revenues from electric system operations, including any surplus, are (1) operating expenses; (2) debt service; (3) tax equivalent payments; and (4) reasonable reserves for renewals, replacements, and contingencies. We found at June 30, 2008, Hickman-Fulton had more than enough cash on hand to cover planned capital projects and provide a cash reserve. The cash reserve after planned capital projects was about 6 percent which was within the guidelines (cash ratio⁷ of 5 percent to 8 percent) TVA established to determine if a distributor has adequate cash reserves.⁸ However, an ice storm in January 2009 caused extensive damage to the distributor's system and consumed virtually all the cash reserves and necessitated a loan of \$12 million.

⁷ TVA reviews the cash ratios of distributors as part of its regulatory rate review function. Cash ratio is calculated as follows:
$$\frac{\text{Cash} + \text{Cash Equivalents}}{\text{Total Variable Expenses (Operations and Maintenance} + \text{Purchased Power)}}$$

⁸ We noted in separate reports issued on other distributors in May 2009 that while TVA has established guidelines to determine if a distributor has adequate cash reserves (cash ratio of 5 percent to 8 percent), TVA has not established guidelines to determine if a distributor's cash reserves are excessive. We recommended TVA develop criteria to be used in determining whether a distributor's cash reserves are excessive and incorporate the criteria into the rate setting process. TVA management agreed and says it will make recommendations to the TVA Board that additional financial metrics be employed for purposes of administering the resale rate provisions in Section 5 of the wholesale power contracts. The need to consider cash reserves will be included in TVA management's recommendations to the Board. A change in the current guidelines to include these additional financial metrics requires Board action. Target completion date is December 2010.

As of June 30, 2008, Hickman-Fulton had about \$983,000 in cash and cash equivalents. Table 2 shows information about plans for major capital expenditures obtained from the distributor's general manager and our review of Board of Directors' meeting minutes.

Hickman-Fulton Planned Capital Expenditures

Capital Expenditure Plans	Project Cost	Planned Completion
Automatic Reading Meters	\$501,000	FY 2010
Total Cost	\$501,000	

Table 2

When compared to capital expenditure plans for the foreseeable future, the balance in Hickman-Fulton's cash accounts was enough to pay for these items and leave about \$482,000 as a reserve, as shown in Table 3. Table 3 also shows that the cash ratio percentage was about 12 percent before accounting for planned capital expenditures and about 6 percent after accounting for them.

Hickman-Fulton Cash Accounts Compared to Planned Capital Expenditures

	Cash and Cash Equivalents	Planned Capital Expenditures	Reserve After Planned Capital Expenditures
	\$982,651	\$501,000	\$481,651
FY 2008 Cash Ratio Percentage	11.8%		5.8%

Table 3

According to TVA records, over the past five years Hickman-Fulton has been approved for a rate decrease of 0.66 percent in 2005 and rate increases of 2.68 percent and 4.51 percent in 2008. Table 4 shows the rate decrease and rate increases received by Hickman-Fulton and the cash position and cash ratio at June 30 prior to the effective date of the rate increase.

Hickman-Fulton Rate Increases, Cash Position, and Cash Ratio

Cash on Hand Equivalent to an 8% Cash Ratio	Cash and Cash Equivalents ⁹ and Cash Ratio	Rate Increase		
		Additional/ (Reduced) Revenue	Percent	Effective Date
\$571,232	\$1,958,194 (CR = 27%)	(\$50,000)	(0.66%)	10/1/2005
\$569,202	\$1,165,860 (CR = 16%)	\$200,000	2.68%	4/1/2008
\$665,956	\$982,651 (CR = 12%)	\$349,422	4.51%	10/1/2008

Table 4

In January 2009, the Hickman-Fulton service area experienced an ice storm which knocked out power to 100 percent of their customers. The cost to repair the system and restore power to their customers required use of virtually all their cash reserves in addition to borrowing \$12 million. The distributor has submitted \$12.5 million related to ice storm repairs to the Federal Emergency Management Agency and hopes to recover up to 75 percent of the submitted cost. It is currently only paying interest on the loan. According to the Hickman-Fulton business manager, the interest costs on the loan will require the use of all their annual profit margin, which is about \$300,000.

TVA OVERSIGHT OPPORTUNITIES

We found opportunities to enhance TVA's oversight of the distributors. Specifically, we noted TVA (1) has not provided guidance to distributors on what types of appurtenances are allowed or at what point in time the use must be predominately residential and (2) has not provided definitive guidance for distributors on what constitutes prudent expenditures

Additional Guidance Needed on Appurtenances

As described previously, we found one Hickman-Fulton customer with a grain bin used for a commercial farming business metered and billed with the customer's residence. While the Residential Retail Rate Schedule in the power contract allows appurtenances to be metered with a residence as long as the majority of use is residential, it does not specifically define what types of appurtenances are allowed or at what point in time the use must be predominately residential (i.e., monthly, yearly, over the life of the account, etc.).

No Policies Defining Appropriate Expenditures

We noted TVA could improve the controls over the use of electric system funds by providing more definitive guidance to the distributors. While reviewing the proper use of electric system revenue, we noted there were no definitive policies

⁹ The cash and cash equivalents and cash ratio were computed based on information from Hickman-Fulton's annual report as of June 30 prior to the effective date of the rate increase.

on permitted expenditures (charity, scholarships, etc.). TVA has allowed distributor management and distributor Board's discretion in the decision-making process for determining what qualifies as operational expenditures. Additional guidance in this area by TVA would decrease the likelihood of misinterpretation of what constitutes a reasonable use of electric funds. In discussions with the TVA Vice President, Strategy, Pricing, and Contracts, actions to address recommendations in a previous review of TVA's Role as a Regulator (Inspection 2005-5221) include the development of distributor guidance pertaining to the use of electric system funds.

In a separate report on another distributor issued in May 2009, we recommended TVA develop a comprehensive guide on permitted expenditures under the use of electric system revenues provision and expense accrual for distributor management to use going forward. The Chief Financial Officer (CFO) agreed it is appropriate to look at permitted expenditures in the context of the use of revenues provision in Section 6 of the wholesale power contract with the distributors. TVA management has said it will explore with the TVA Board the extent to which a comprehensive guideline is feasible and whether the TVA Board desires to adopt a policy that would employ such a guideline. Target completion date is December 2010.

RECOMMENDATIONS

We recommend the CFO work with Hickman-Fulton to improve compliance with the contract. Specifically, Hickman-Fulton should:

1. Develop and implement a process to test in-house any meters identified during independent testing with a power factor below 85 percent and install demand meters that measure kVA as needed.

Hickman-Fulton's Response – Hickman-Fulton stated they are currently in the process of installing kVA meters at customer locations with a power factor below 85 percent. See Appendix A for Hickman-Fulton's complete response.

TVA Management's Comments – The CFO agreed with our recommendation and stated that Hickman-Fulton was in the process of addressing this issue. See Appendix B for TVA's complete response.

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

2. Ensure all customers with appurtenances used for commercial operations are metered the same.

Hickman-Fulton's Response – Hickman-Fulton stated they did not agree with the recommendation since the customer with the commercial grain bin metered with the residence is primarily a residential customer and the load

profile is 80 percent residential. See Appendix A for Hickman-Fulton's complete response.

TVA Management's Comments – The CFO stated that they would not challenge the ruling by the distributor since the grain bin metered with the residence is an allowable appurtenance and there is an appropriate basis that the majority use of energy is for residential purposes. See Appendix B for TVA's complete response.

Auditor's Response – The OIG agrees that the appurtenance is allowable under the contract; however, we maintain that disparate treatment among customers with seasonal grain bins could be construed as discrimination in providing power to members of the same rate class.

The CFO should:

3. Establish guidance for distributors on allowable appurtenances and at what point in time the use must be predominately residential to qualify for the residential rate.

TVA Management's Comments – The CFO disagreed with the recommendation and stated that further guidance on appurtenances could not be accomplished through administrative guidance and would require a change to the *Availability* section of the Residential Retail Schedule. See Appendix B for TVA's complete response.

Auditor's Response – The OIG believes additional guidance on appurtenances would be beneficial to ensure uniform application of the Residential Rate Schedule.



Hickman-Fulton Co. RECC

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September 4, 2009

Robert E. Martin
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Knoxville, TN 37902-1401

Dear Mr. Martin:

We have reviewed the Draft Inspection 2008-12039 and are submitting comments at this time.

Metering - Hickman-Fulton Counties RECC is currently in the process of installing kVA meters at consumers locations where the power factor was below 85 percent.

Hickman-Fulton RECC has collected revenue for the meter that was not measuring consumption and the one that was being billed for 1/40th of their actual consumption.

Customer with a seasonal commercial grain bin metered with the primary residence - Since the account is primarily residential and the load profile is approximately 80% residential, we have not violated our contractual obligation with TVA, therefore we believe your recommendation is unwarranted.

Contract Compliance - Hickman-Fulton RECC understands that most distributors are not in compliance with the 50 kw ruling. TVA indicates this threshold was established in 1963 and the current requirements for obtaining contracts will change. We are waiting on a TVA response.

Sincerely,

A handwritten signature in black ink, appearing to read "Greg Grissom".

Greg Grissom
President/CEO
Hickman-Fulton Counties RECC

Cc: Kimberly S. Greene

September 17, 2009

Robert E. Martin, ET 3C-K

RESPONSE TO DRAFT INSPECTION REPORT 2008-12039 – DISTRIBUTOR
REVIEW OF HICKMAN-FULTON COUNTIES RURAL ELECTRIC
COOPERATIVE CORPORATION

This is in response to your memorandum dated August 12, 2009.

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.

1. Develop and implement a process to test in-house any meters identified during independent testing with a power factor below 85 percent and install demand meters that measure kVA as needed.
 - TVA management agrees that a process to test meters with a power factor below 85 percent should be implemented and demand meters should be installed as needed.
 - **Actions taken or planned, and completion dates:** Hickman-Fulton Counties RECC is currently in the process of installing kVA meters at consumer locations where the power factor is below 85 percent.
2. Ensure that all customers with appurtenances used for commercial operations are metered the same.
 - This recommendation is in response to the rate classification of a seasonal commercial grain bin metered with a residence. The grain bin is an appurtenance to a single-family dwelling served through the same meter as the dwelling, and there is an appropriate basis for a determination that the major use of the energy supplied through that meter is for domestic purposes. Therefore, TVA management does not concur with the recommendation. The very limited seasonal period during which the energy used by the grain bin has exceeded the energy being used at that time for domestic purposes is not a sufficient basis for TVA to challenge the classification made by the distributor. TVA management believes that there is no indication that the distributor has been inconsistent or discriminatory with respect to the method or criteria it uses to make such classification decisions.
 - **Actions taken or planned, and completion dates:** TVA does not plan to take any action on this issue.

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3. Establish guidance for distributors on allowable appurtenances and at what point in time the use must be predominantly residential to qualify for the residential rate.
 - TVA management does not concur with the recommendation. Further limiting or otherwise further defining what can qualify as an appurtenance to a residence could not be accomplished through administrative guidance but would require a change to the "Availability" section of the residential rate schedule. The current rate design was implemented as a part of a Rate Change to address inequities that had arisen in the distribution of the hydro system benefits allocated to residential customers. The rate design was recommended to the Board and adopted after careful consideration and lengthy discussions with distributors. Its validity was thereafter upheld in litigation. TVA management does not believe reopening these issues will have any value to the customer.
 - **Actions taken or planned, and completion dates:** TVA does not plan to take any action on this issue.

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