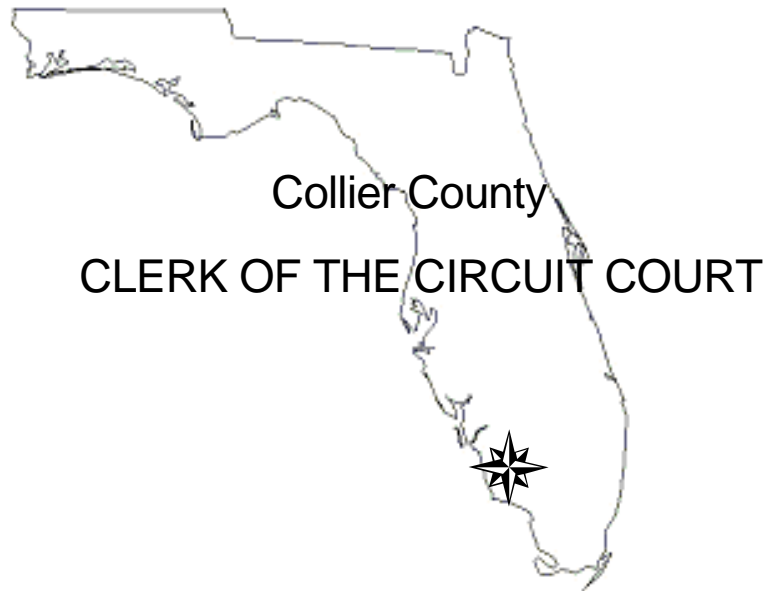


Collier County Clerk of the Circuit Court
Internal Audit Department

Audit Report 2004 – 10

Electric Bills: Wastewater Department



County of Collier
CLERK OF THE CIRCUIT COURT

Dwight E. Brock
Clerk of Courts

COLLIER COUNTY COURTHOUSE
3301 TAMiami TRAIL EAST
P.O. BOX 413044
NAPLES, FLORIDA 34101-3044

Clerk of Courts
Accountant
Auditor
Custodian of County Funds

November 16, 2004

Honorable Donna Fiala, Chairman
And Members of the Board of County Commissioners
3301 Tamiami Trail East
Naples, Florida 34112

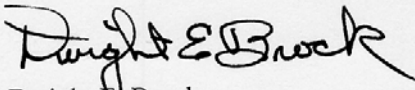
RE: Electric Bills: Wastewater Department
(Report No. 2004-10)

Chairman:

The enclosed report discusses the findings and recommendations of the above captioned audit performed by the Internal Audit Department. We thank Public Utilities Management and the Wastewater Department for their cooperation in the performance of this audit.

If you have any questions about this report, please feel free to contact John Ferrell at 774-4645.

Sincerely,



Dwight E. Brock
Clerk of the Circuit Court

Enclosure

cc: James V. Mudd, County Manager

**Collier County
Clerk of Courts
Internal Audit
Department**

Memo

To: The Honorable Dwight E. Brock, Clerk of the Circuit Court

From: ^{P.B.} Patrick Blaney, CFE, CPA

Date: November 16, 2004

Re: Electric Bills: Wastewater Department

Please find attached our audit report of Electric Bills: Wastewater Department. This report includes the responses of Public Utilities Management to our findings & recommendations.

Internal Audit gratefully acknowledges the cooperation and assistance of Public Utilities Management, Wastewater Department, and other Board of County Commissioners employees.

If you have any questions about this report, kindly contact me at 774- 8075.

Collier County Clerk of the Circuit Court
Internal Audit Department

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Table of Contents

Audit Objectives & Scope.....	1
Audit Methodology & Procedures.....	1
Background.....	2
Findings.....	3
Improper Franchise Charges and Sales Tax Paid on Electric Bills.....	3
Bill Payment Process Lacks Proper Controls.....	4
Deposit Charged to Electricity Expense.....	5
Wastewater Paid for Another Division's Lights; Incorrect Rate Applied.....	6
Summary-Billing Method Weakness.....	6
Optimal Rates for Electricity are Being Charged.....	7
Conclusion.....	8
The Public Utilities Management Response.....	9

Electric Bills: Wastewater Department

Background Information

Audit Objectives & Scope

We have conducted an audit of the electric power bills of the Wastewater Department. Our objectives were to evaluate the propriety of the Department's electric bills, to determine whether opportunities exist to reduce electric power expense, and to examine the processes for reviewing and approving payment of these bills. The scope was limited to electric bill payments after January 1, 2004.

Audit Methodology & Procedures

The Internal Audit Department interviewed appropriate Public Utilities Division staff responsible for approving and processing these electric bills.

Internal Audit tested the accuracy of individual electric bills, traced their amounts to summary bill statements, and compared them to amounts actually paid. We also considered the electric bills' compliance with applicable ordinances, statutes, policies and procedures relevant to the sale & purchase of electric power.

We also physically observed lift station sites and verified that electric use was correctly charged to the Wastewater Department. Electric meters were also traced to GPS maps provided by Wastewater Collections, and the locations traced to FPL customer statements and FPL provided account lists.

In addition, Internal Audit observed procedures used to review and authorize electric bills. We also reviewed contracts to determine if terms and account classifications agreed with detail billing.

Background

The Wastewater Department's primary task is the management, operation, and maintenance of facilities that collect and process wastewater for the Collier County Water-Sewer District. In order to collect and treat wastewater for processing, over 670 lift stations are used to pump waste from over 150,000 commercial and residential customers over 714 miles of gravity lines to two Regional Water Reclamation Facilities (processing plants) strategically located in the County. In order to operate Collier County's wastewater plants and lift stations, the Board of County Commissioners purchases electricity from Florida Power & Light Company (FPL). FPL bills the County monthly for electric consumption according to a Florida Public Service Commission approved tariff (rate) schedule. Chapter 366, Florida Statutes, vests the Florida Public Service Commission (PSC) with the authority to set "fair and reasonable" utility rates and charges. FPL is an investor-owned electric utility within the PSC's jurisdiction. Approved tariffs are combinations of factors chiefly applied to the amounts of electricity used during the billing period.

The Public Utilities Division's Operations Department and Wastewater Department monitor & process the monthly FPL bills for Collier County's two wastewater plants and more than 670 lift stations. Utility Finance Operations is responsible for reviewing and authorizing electric bills up to \$15,000. The Director of the Wastewater Department authorizes bills that exceed \$15,000. When new accounts are established, Utility Finance Operations communicates with the County's Wastewater Collections Department to verify that the lift station is completed, operational, and has been released by the contractor to the County for billing. Electricity expense represents 18% of the Wastewater Department's operating budget and is the second largest operating expenditure.

The Clerk's Finance Department and Utilities Department employ a summary billing method in processing a large volume of electric bills. Master accounts were created by FPL that allow the county to consolidate similar accounts into one master account known as a summary bill master. The similar accounts that make up the new master account are called sub accounts. The Wastewater Department has consolidated 676 sub accounts into seven Master accounts. The number of sub accounts in a summary bill master account ranges from 6 to 214. The purpose of combining sub accounts into Master accounts is to simplify the bill paying process. FPL offers this system to other large customers that have a large number of separate billing points and meter locations. At the end of a monthly billing cycle the Clerk's Finance Department receives three segments of account information from FPL that make up the Wastewater Department's monthly electric bill: the individual customer statements for each sub account that detail the monthly charges; the summary bill statement that lists the monthly billing information for each sub account by account number, location, service days, amount of electricity used, and total due amount; and a summary bill that shows the total amount of all the individual customer statements. The three segments should reflect the same total amount due. Finance transmits all three segments promptly to Utilities Operations for review and approval. The summary bill statement and summary bill total are faxed first for preliminary review, and the individual customer statements are sent through interoffice mail for final review and authorization.

Section 2

Electric Bills: Wastewater Department Findings

Improper Franchise Charges and Sales Tax Paid on Electric Bills

Between January 12, 2004, and March 30, 2004, we found eight accounts that generated 18 instances wherein Florida Power & Light Company (FPL) improperly charged, and the Public Utilities Operations Department incorrectly approved, franchise fees of \$128.58 on electric bills. Also during this period, FPL charged and Utilities approved sales tax on one account for \$2.64.

Local governments may charge franchise fees to utilities for use of public rights of way within the governments' boundaries. According to FPL General Rules and Regulations for Electric Service set by the Florida Public Service Commission, Section 7.6, "A franchise charge shall be added to the bills of all Public Service Commission jurisdictional customers, as determined by franchise agreements between Florida Power & Light Company and governmental authorities." However, in these 18 instances, the County purchased and consumed electric power in unincorporated Collier County where the County does not presently charge FPL a franchise fee for account locations in unincorporated Collier County. Also, according to section 212.08(6), Florida Statutes, sales made to a county are exempt from sales tax.

It appears that Operations Department personnel did not follow procedures in reviewing and authorizing individual electric bills for unauthorized or questionable charges, such as franchise charges and sales tax, because the improper charges went on for a period of 10 months to 2 years. Operations personnel have relied on summary bill statement amounts for payment authorization. These statements are incomplete as to detail charges such as franchise fees and other charges. As a result, Collier County government overpaid electric bills in the amount of \$131.22 for the three month period tested. The amount aside, the County is at risk of allowing, unchecked, improper charges if management does not take measures to review all accounts regularly, and question all out of the ordinary charges.

Recommendations

Public Utilities Operations Department personnel should pursue reimbursement for the franchise charges and sales tax paid in error. They should also prepare written procedures for the bill authorization process, including periodic review of sub account detail, and noting charges from which Collier County is exempt.

Public Utilities Management Response

Franchise fees and sales tax have been reimbursed by FP&L. Management recommends that Operations and the Clerk's Finance Office work together with FP&L to modify the Summary Bill to include additional columns for franchise fees, sales tax and other. This would enable staff to review the Summary Bill on an exception basis. If FP&L were unable or unwilling to modify the Summary bill, our suggestion would be to sample 5% of the total sub accounts each month (approximately 30) on a rotating basis. While this will not preempt non-extraordinary insignificant erroneous payments, it will reduce the possibility of these charges from being paid erroneously. Management agrees that written procedures are appropriate and will implement as quickly as possible.

Bill Payment Process Lacks Proper Controls

There appears to be no control mechanism in the bill authorization process that monitors each sub account for variances in amounts billed, or in the number of accounts billed. During the period tested the Operations Department only accounted for Wastewater's master accounts and their corresponding summary bills. Operations employees list summary bills on the Department's Excel Summary Schedule by location and month, using the master account number assigned by the vendor, FPL, but do not list the individual bill amounts that make up the particular master account. The number of individual sub accounts included in a master account and summary bill ranges from 6 to 214, and the average monthly bill ranges from \$3,974 to \$87,930, as follows:

<u>Master Acct #</u>	<u>No of Sub Accounts</u>	<u>Total Avg Monthly Amount</u>
86461-52325	6	\$ 47,783
28385-65485	16	87,930
52220-95423	18	3,974
30204-30389	114	5,521
32536-07331	137	16,143
48425-34572	171	11,368
<u>32426-54246</u>	<u>214</u>	<u>11,877</u>
Totals	7	\$184,596

Management uses a monthly variance threshold of 3% to 5% in looking for unusual billing amounts, but applies this threshold only to the summary bills, not to the sub accounts. As a result of not consistently comparing the individual bills (sub accounts) to the summary bill statements, the County has underpaid one master account by \$181.46 over a 5-month period. Management does not have written procedures that would provide the consistent controls required to reduce the risk of paying incorrect bill amounts.

Collier County could potentially pay incorrect electric bill amounts if Operations personnel do not review individual bills for significant changes, such as new or missing sub accounts, or major amount variations. Variances in summary bill totals may not always disclose significant differences within individual bill amounts because they may be offset by other potential sub account differences, such as those resulting from faulty meters, incorrect rates, closed accounts or discontinued locations, incorrect "constant" factors applied to

electric use or demand, adjustments such as revenue rebates, or sub accounts not belonging to the Department.

Recommendations

Operations Department management should establish written procedures to regularly monitor individual sub accounts for acceptable variances. Also, management should consider applying the 3% to 5% policy for examining billing variances to individual sub accounts in addition to the master accounts.

Public Utilities Management Response

Again, management recommends a sampling approach of 5% of the individual sub accounts each period on a rotating basis. Staff has implemented a procedure to ensure that the sum of individual sub accounts total the amount billed on the Summary Bill each period. Written procedures will include this step.

Deposit Charged to Electricity Expense

The Operations Department authorized paying FPL a deposit of \$50.00 on a new account, and incorrectly charged the payment to electricity expense instead of an asset account. According to generally accepted accounting principles, deposits paid are treated as assets when a refund is expected upon settlement of all indebtedness. While interviewing FPL officials, Internal Audit discovered that their unwritten policy exempts the County from paying guarantee deposits on new accounts. The County is at risk of overpayment of electric bills if management does not question and investigate unusual or out of the ordinary charges.

Recommendations

Public Utilities personnel should ask vendors about unusual charges on invoices before approving them. They should also adhere to sound accounting principles when classifying expenses and recording other assets.

Public Utilities Management Response

The \$50 security deposit has been returned to the county. Staff is now aware that FP&L's unwritten policy exempts the county from payment of security deposits and will be vigilant for these types of billings in the future. Management believes that a modified Summary Bill, as described in section 1 above, should alleviate this situation in the future so that staff can audit Summary Bills on an exception basis.

Wastewater Paid for Another Division's Lights; Incorrect Rate Applied

Since 1987, the Wastewater Department has been paying for 3 streetlights that are the responsibility of the Transportation Services Division. Utilities ratepayers have paid over \$7,000 for these streetlights over the past 17 years. Also, FPL improperly charged residential rates on one account instead of the correct General Service Non-Demand rate (GS-1). If Operations personnel do not review individual bills, Public Utilities ratepayers could wind up paying for extraneous electric charges.

Recommendations

Operations Department personnel should review and authorize new accounts and approve proper service rates and independently determine the county department responsible for payment of the electric bill. Management should prepare written procedures for recording a new account when a contractor releases it to the Wastewater Department upon project completion.

Public Utilities Management Response

The streetlights are located at county owned lift stations and incumbents assumed they were necessary for proper maintenance of lift stations during hours of darkness. Upon discovery of the error as a result of this audit, staff immediately contacted the Transportation Department and these three streetlights are now being charged to the appropriate Division. Management suggests that all new accounts be monitored individually for a two-month period to ensure that rates are properly established. This procedure will be included in the written procedures document.

Summary-Billing Method Weakness

Operations Department personnel approve summary bills for payment based on the totals of the summary bill statements, because FPL designed the summary bill statements to show current month charges only. However, the summary bill statements for master account 30204-30389 did not always report only current month charges. During the audit period, these summary bill statement totals varied from \$489.72 less than to \$305.44 more than the total current charges on the individual sub account bills.

The Wastewater Department, Clerk's Finance, and FPL established the summary bill method in order to improve efficiency in processing bills by consolidating similar accounts. The method was not intended to circumvent the review and authorization of individual electric bills batched with the summary bill and summary bill statement. Electric bill expenditures should balance with FPL's summary master bills. Operations personnel have relied on summary bill statement totals that are not always in agreement when compared to current electric charges on the individual customer statement or sub account, resulting in their authorizing incorrect amounts for payment.

Recommendations

Operations personnel should work with FPL to determine why these summary bill statements do not consistently reflect current month charges only, as intended. In the alternative, they should review and authorize payment from individual sub account bill amounts rather than the summary bill statements.

Public Utilities Management Response

Management recommends that operations staff work in unison with Clerk's Finance and FP&L to determine the root cause of this problem in conjunction with the project (see first section) to modify the summary bill. As stated above, operations staff sums the individual sub account bills included in the appropriate summary statement to ensure the amount on the summary bill agrees with the sum of the details. This step will be included in the procedures manual for FP&L invoicing.

Optimal Rates for Electricity are Being Charged

Our recalculations of over 1,200 electric bills for the 3-month period January to March 2004 revealed no mathematical errors. Comparisons of Wastewater plants and lift stations monthly usage and daily demand figures to the Public Service Commission approved tariff schedules indicated that FPL is charging the County the optimal rates for Wastewater electricity. In addition, the Wastewater Department has successfully negotiated a long-term interruptible rate agreement with FPL for favorable rates that are no longer available to other customers.

Recommendations

Management should continue to monitor electric consumption for any trends that may lead to potential cost savings to the County.

Public Utilities Management Response

Management will continue to monitor the FP&L electricity bills to look for trends and ways to conserve energy. The Wastewater Department has trained all of the key personnel in energy conservation methods. The department is working towards drafting an electric motor policy where it is more energy efficient to replace electric motors above 20 HP instead of rewinding the motor. The department has embarked on process improvement policies that will seek to optimize each unit process in order to minimize energy consumption. Automated readings of demand meters for the treatment plants will trigger alarms that will notify the plant operations staff when utilization approaches high demand thresholds. The use of Variable Frequency Drives will be utilized where appropriate. The department meets on a quarterly basis with key members of the FP&L reliability staff to look for inefficiencies in the FP&L distribution system to insure the department is getting the highest quality power possible.

Electric Bills: Wastewater Department

Conclusion

Because electricity is the Wastewater Department's second largest expenditure, the Department has taken several noticeable steps to reduce energy cost. In addition to negotiating with FPL to retain a long-term interruptible rate schedule no longer available, the Wastewater Department has contracted with an independent consulting firm (Siemens Engineering) to perform an energy audit that included determining the most favorable rate structures and offering other efficiencies Wastewater could initiate. The Department is participating in a Division-wide Project Management Plan for energy efficiency enhancement with a project manager responsible for implementing energy savings. Both the Wastewater Department and Utility Division should be commended for their efforts.

Electric Bills: Wastewater Department

Exhibits

The Public Utilities Management Response

ELECTRIC BILLS: WASTEWATER DEPARTMENT Public Utilities Management Response

Improper Franchise Charges and Sales Tax Paid on Electric Bills

Occurrence: Franchise Fees of \$131.22 over a three-month period and sales tax of \$2.64 were erroneously paid to FPL as a result of monthly review of summary bills, not the 676 detailed sub-accounts.

Internal Audit Recommendation: Pursue reimbursement for the franchise fees and sales tax paid in error. Include periodic review of sub account detail.

Management Response: Franchise fees and sales tax have been reimbursed by FP&L. Management recommends that Operations and the Clerk's Finance Office work together with FP&L to modify the Summary Bill to include additional columns for franchise fees, sales tax and other. This would enable staff to review the Summary Bill on an exception basis. If FP&L were unable or unwilling to modify the Summary bill, our suggestion would be to sample 5% of the total sub accounts each month (approximately 30) on a rotating basis. While this will not pre-empt non-extraordinary insignificant erroneous payments, it will reduce the possibility of these charges from being paid erroneously. Management agrees that written procedures are appropriate and will implement as quickly as possible.

Bill Payment Process Lacks Proper Controls

Occurrence: The County underpaid on one master account by \$181.46 over a five-month period based on FP&L's error in not properly associating the correct sub accounts to the master account.

Internal Audit Recommendation: Regularly monitor all 676 individual sub accounts for acceptable variances from period to period.

Management Response: Again, management recommends a sampling approach of 5% of the individual sub accounts each period on a rotating basis. Staff has implemented a procedure to ensure that the sum of individual sub accounts total the amount billed on the Summary Bill each period. Written procedures will include this step.

Payments Charged to Electricity Expense in Error

Occurrence: A payment of \$50.00 to FP&L for a security deposit was made and charged to electricity expense rather than an asset account although FP&L unwritten policy exempts the County from paying guarantee deposits on new accounts.

Internal Audit Recommendation: Public Utilities staff should ask vendors about unusual charges on invoices before approving them.

Management Response: The \$50 security deposit has been returned to the county. Staff is now aware that FP&L's unwritten policy exempts the county from payment of security deposits and will be vigilant for these types of billings in the future. Management believes that a modified Summary Bill, as described in section 1 above, should alleviate this situation in the future so that staff can audit Summary Bills on an exception basis.

Wastewater Paid for Another Division's Lights; Incorrect Rate Applied

Occurrence: The charge for three streetlights have been paid by Public Utilities for the past 17 years, costing Utilities Ratepayers \$7,000 over this time period. Also, FP&L also improperly charged residential rates on one account instead of the correct GS-1 rate as a result of Operations staff not reviewing the 676 individual sub accounts each period.

Internal Audit Recommendation: Operations department should review and authorize new accounts and approve proper service rates and independently determine the county department responsible for payment of the electric bill. Management should prepare procedures for recording a new account when a contractor releases it to the Wastewater Department.

Management Response: The streetlights are located at county owned lift stations and incumbents assumed they were necessary for proper maintenance of lift stations during hours of darkness. Upon discovery of the error as a result of this audit, staff immediately contacted the Transportation Department and these three streetlights are now being charged to the appropriate Division. Management suggests that all new accounts be monitored individually for a two-month period to ensure that rates are properly established. This procedure will be included in the written procedures document.

Summary-Billing Method Weakness

Occurrence: Summary bill statements for master account 30204-30389 did not always report only current month charges.

Internal Audit Recommendations: Operations personnel should work with FP&L to determine why these summary bill statements do not consistently reflect current month charges only.

Management Response: Management recommends that operations staff work in unison with Clerk's Finance and FP&L to determine the root cause of this problem in conjunction with the project (see first section) to modify the summary bill. As stated above, operations staff sums the individual sub account bills included in the appropriate summary statement to ensure the amount on the summary bill agrees with the sum of the details. This step will be included in the procedures manual for FP&L invoicing.

Optimal Rates for Electricity are Being Charged

Internal audit recalculations of over 1,200 electric bills over a 3-month period reveal no mathematical errors. In addition, the Wastewater Department has successfully negotiated a long-term interruptible rate agreement with FP&L for favorable rates that are no longer available to other customers.

Internal Audit Recommendations: Management should continue to monitor electric consumption for any trends that may lead to potential cost savings to the county.

Management Response: Management will continue to monitor the FP&L electricity bills to look for trends and ways to conserve energy. The Wastewater Department has trained all of the key personnel in energy conservation methods. The department is working towards drafting an electric motor policy where it is more energy efficient to replace electric motors above 20 HP instead of rewinding the motor. The department has embarked on process improvement policies that will seek to optimize each unit process in order to minimize energy consumption. Automated readings of demand meters for the treatment plants will trigger alarms that will notify the plant operations staff when utilization approaches high demand thresholds. The use of Variable Frequency Drives will be utilized where appropriate. The department meets on a quarterly basis with key members of the FP&L reliability staff to look for inefficiencies in the FP&L distribution system to insure the department is getting the highest quality power possible.