CITY AUDITOR'S OFFICE

Energy Billing Audit

March 10, 2011 **AUDIT REPORT NO. 1101**

CITY COUNCIL
Mayor W.J. “Jim” Lane
Lisa Borowsky
Suzanne Klapp
Vice Mayor Robert Littlefield
Linda Milhaven
Ron McCullagh
Dennis Robbins

March 10, 2011

Honorable Mayor and Members of the City Council:

Enclosed is my report on the *Energy Billing Audit*, which was contracted through the Public Works Division. Utilities Analyses, Inc. (UAI) performed the detailed analysis of the City's electric and natural gas billings and rate schedules.

UAI identified potential overbillings totaling $58,700 and recommended rate schedule changes estimated to save $321,000. UAI is paid on a contingency fee basis, and does not receive payment unless the City receives a refund or account credit from the utility company or implements a rate schedule change and recognizes actual savings. To date, a refund of $26,737 has been received. My office will continue to monitor and report on the status of the audit recommendations as part of our quarterly audit follow-up process.

If you need additional information or have any questions, please contact me at (480) 312-7867.

Sincerely,

Sharron Walker

Sharron Walker, CPA, CFE
City Auditor

Audit Team:

Joyce Gilbride, Assistant City Auditor

TABLE OF CONTENTS

Executive Summary 1
Background 3
Objectives, Scope, and Methodology 5
Findings and Analysis 7
1. UAI's electric utility refund recommendations 7
2. UAI's recommended electric rate schedule changes 7
Management Response 9

EXECUTIVE SUMMARY

This *Energy Billing Audit* was included on the Council-approved FY 2010/11 Audit Plan. While initially scheduled for completion as part of the FY 2009/10 Audit Plan, primarily due to the time spent in the procurement process, its completion was extended into the current fiscal year.

The audit, performed by independent consultant Utilities Analyses, Inc. (UAI), encompassed the City's electric and natural gas accounts. The consultant reviewed the City's utility billings for potential overcharges during the past three years and evaluated the potential for more favorable rate schedules.

As of March 1, 2011, UAI had identified about $58,700 in refunds due for three electric accounts and recommended rate changes representing a potential $321,000 in annual on-going savings for 24 accounts. No savings were identified for the City's natural gas accounts. UAI is paid on a contingency basis, with the fee varying from 20% to 40% of any actual refund amount or identified rate savings for 36 months after implementation.

Refunds
UAI identified 3 potential overpayments; Water Resources and APS have agreed with 1 refund totaling $26,737. Water Resources agreed with a second potential overbilling ($12,000) and is submitting it to APS for review. However, Water Resources determined the third potential overbilling ($20,000) related to a large well being put into service.

Rate Changes
UAI recommended different rate schedules for 24 of the City's electric service locations. These recommended changes are still being reviewed by the City or the utility companies.

For APS accounts, UAI recommended different rate schedules for 19 Water Resources' accounts and one WestWorld account. As of March 1, the Water Resources Division is proceeding with 3 recommended rate schedule changes, which are projected to save almost $88,300 annually. Currently, UAI plans to submit the recommended WestWorld rate schedule change to the utility company after the three pending Water Resources rate changes are processed. This change is projected to save $14,200 per year.

At this time, Water Resources is not proceeding with the other 16 recommended APS rate schedule changes or the 4 SRP accounts for which UAI has also recommended rate schedule changes. Water Resources has an ongoing System Optimization Program that is expected to result in operational changes likely to affect the benefit of the recommended rate schedules. Due to the substantial amount of time required to change rate schedules, the Division has determined it is not cost-effective to make the changes on an interim basis.

Follow Ups
The consultant's contingency fee is not due until the recommended refunds are received or rate changes are implemented and savings are being realized. Quarterly Audit Follow Up reports will include updates on the progress of these refund and rate change recommendations.

BACKGROUND

In October 2009, the Audit Committee approved adding this *Energy Billing Audit* to FY 2009/10 Audit Plan to report on a consultant's review of the City's electric and natural gas utility bills. The City receives electric utility services from Arizona Public Service (APS) and Salt River Project (SRP); it receives natural gas services from Southwest Gas. There are approximately 800 separate service locations consisting of buildings, street lights, traffic signals, sprinklers, parking structure, pumps and well sites. Services are billed through 955 electric accounts and 71 natural gas accounts; Table 1 summarizes the last two fiscal years' expenses.

Table 1. Utility Expenses - FY 2008/09 and 2009/10

Service	FY 2008/09	FY 2009/10
Electric	$17.2 M	$18.4 M
Natural Gas	$ 0.8 M	$0.6 M
Total	**$18.0 M**	**$19.0 M**

SOURCE: Citywide Line Item Expenditure Report for FYE 2009 and 2010

In conjunction with the Public Works Division, a request for proposals (RFP) was issued November 13, 2009, with one mandatory task and two optional tasks:

Task One (Mandatory) – Obtain refunds/credit adjustments from any overcharges on historic billings. This task was defined to include confirming whether rates are being correctly applied and whether available alternate rates offer savings opportunities. This audit is to be completed within 180 days of Consultant's receipt of utility bills, with a complete written report detailing billing errors and potential rate changes.

Task Two (Optional) – Create an electronic compilation of the source data in a format that is updateable with future utility billing information.

Task Three (Optional) – Create a recommendation report for a specific service location to identify opportunities and methodologies for future cost savings. This report is to be prepared on an as-needed basis as directed by the Contract Administrator.

Three proposals were received by the due date, December 22, 2009. The proposal review process began in January 2010, with proposal ratings completed in early February. The proposal evaluation team met with the selected consultant, Utilities Analyses, Inc. (UAI), in March 2010 to ensure consistent understanding of the proposed terms; an administratively approved contract was signed July 1, 2010. Contract activity started after an initial introductory meeting with UAI on July 29, 2010. Table 2 on page 4 summarizes the planned timeline for UAI's utility billing audit activities.

Table 2. Timeline for audit activities	
Major Activity	Anticipated Timing
City to provide billing data	Weeks 1 through 4
Populate database	Week 5 and ongoing
Create load shapes	Weeks 4 through 8
Billing error detection and discussion	Week 5 and ongoing
Rate comparisons and best practice analysis	Week 5 and ongoing
Recommendations, strategy and approval	Week 8 and ongoing
UAI and City negotiate with utilities to implement recommendations	Week 9 and ongoing
Verify changes, monitor and report savings	Week 15 and ongoing
SOURCE: Utilities Analyses, Inc. (UAI) proposal	

The Public Works Division, Facilities Management, provided to UAI 36 months of detailed billing data for the City's electric and natural gas utility accounts.

As proposed, UAI reviewed the billing data for potential errors in usage or rates resulting in overcharges that should be refunded to the City or credited to its account. In addition, UAI analyzed the City's usage at its various facilities to identify if different rate schedules would be more favorable. For example, "totalizing" several meters may result in a single account that is eligible for a better rate schedule. [1]

The contract requires the City to make best efforts to expeditiously approve any recommendations within 30 days of receipt of each recommendation from the consultant. UAI has worked with Water Resources, WestWorld, Facilities Management, and others in analyzing savings potential of possible overcharges and recommended rate schedule changes.

While work is still underway coordinating with City divisions and utility companies to analyze the proposed rate schedule changes and two of three potential refunds, UAI provided a report on its progress as of March 1, 2011.

[1] Totalizing is a process that results in treating several meters at one contiguous property as one, such as setting up a virtual meter to combine the readings for several meters into one monthly meter reading. There is typically a one-time cost for meter totalization as well as possible monthly cell service charges when combined through cellular technology.

OBJECTIVES, SCOPE, AND METHODOLOGY

The objective of this audit was to identify utility savings from any potential overcharges on past billings, leading to refunds or credit adjustments, and to identify more favorable utility rates potentially available. The Public Works Division contracted with a consultant to analyze the past 3 years' billing data for the City's electric and natural gas accounts. The City Auditor's office helped develop the Request for Proposals, evaluate the three consultant proposals received, select the consultant, and monitor progress and results of the subsequent audit.

When using the work of a specialist, auditors are required by Government Auditing Standards to evaluate the qualifications and independence of the specialist and to document the nature and scope of the specialist's work, including the objectives and scope of work, intended use of the specialist's work to support the audit objectives, the specialist's procedures and findings so they can be evaluated and related to other planned audit procedures, and the assumptions and methods used by the specialist.

In evaluating the proposals, the City Auditor ensured the selected consultant firm and key staff qualifications demonstrated technical competence. Also, the selected consultant was independent of City management. While the Facilities Management department administered the contract, the consultant and the City Auditor discussed audit progress and results throughout the audit. In addition, the City Auditor assisted in developing the scope of work included in the Request for Proposals and evaluated the consultant's work methods. There were no significant deviations from recommended requirements.

We conducted this audit in accordance with generally accepted government auditing standards as required by Article III, Scottsdale Revised Code, §2-117 et seq. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. Audit work took place from August 2010 through February 2011, with Utilities Analyses, Inc. conducting the work.

FINDINGS AND ANALYSIS

1. UAI's electric utility refund recommendations

UAI reviewed City accounts for potential usage or rate errors. Many of the erratic usage patterns related to departments with extreme seasonality, such as the Parks and Recreation Department and the Water Resources Division. However, three Water Resources electric accounts, a Well and two Pumps, have potentially been overbilled by about $58,700.

The Well account refund of $26,737 has been reviewed by Water Resources and approved by APS. The City recently received this refund; UAI's contingency fee will be about $5,347. The Water Resources Division agreed with one potential overcharge for a Pump account ($12,000) and will be forwarding it to the utility company. However, the Division has determined the third potential overcharge ($20,000) is actually a consumption surge caused by recently putting the large well into service.

UAI does not receive its contingency fees, estimated at $12,621 for these three potential overcharges as shown in Table 3 on page 8, unless the refunds are approved and the City has received a refund check or account credit.

Recommendation:
The progress of these potential overcharges and payment of the related contingency fees will be monitored, and their status updated in the City Auditor's quarterly Audit Follow Up reports.

2. UAI's recommended electric rate schedule changes

UAI identified 24 potential electric rate schedule changes that may benefit the City with potential savings of $321,000 per year. To date, four recommendations are being pursued and 20 are pending future decisions.

A. APS accounts

UAI identified 19 Water Resources accounts that may qualify for and benefit from a different rate schedule. The Water Resources Division directed UAI to proceed with implementing the rate change for 3 Pump accounts. However, the Division has a System Optimization Program underway that is expected to result in operational changes likely to affect the savings potential for the other 16 locations. The Division indicated its System Optimization effort considers many factors in addition to possible energy savings, and the two efforts have been overlapping since the UAI energy billing audit began. Due to the time required to change rate schedules, the Division has determined it is not cost-effective to make the changes on an interim basis. UAI estimated potential savings of about $88,300 per year for the three Pump accounts and $199,000 per year for the remaining 16 accounts.

In addition, UAI identified one APS account at WestWorld that may benefit from a rate schedule change. This proposed rate schedule, estimated to save approximately $14,200 per year, will be submitted after the 3 Pump accounts are resolved.

B. SRP accounts

UAI identified four SRP accounts that may save about $19,500 per year with rate

schedule changes. Because the System Optimization Program may significantly change these operations as well and affect the potential savings, Water Resources has not directed UAI to implement these rate changes at this time.

UAI does not receive its contingency fees until the recommended rate changes are implemented and savings are being realized. The contingency fees, estimated at about $124,300 per year if all rate recommendations are implemented, are shown in Table 3. Once a recommended rate change is implemented, the contingency fee is paid for a period of 36 months. The City is not required to implement UAI's recommendations; however, any recommended change that is implemented within a period of 36 months after the recommendation will be assessed the contingency fee.

Recommendation:
The progress of these potential overcharges and payment of the related contingency fees will be monitored, and their status updated in the City Auditor's quarterly Audit Follow Up reports.

Table 3. Summary of Recommended Refunds and Rate Changes with Estimated Fees

Type	Projected Annual Savings	Estimated Contingency Fee	Estimated Net Annual Savings
Well Overcharges	$ 26,737	$ 5,347	$ 21,390
Pump Overcharge	$ 12,000	$ 2,400	$ 9,600
Potential Overcharge	$ 20,000	$ 4,874	$ 15,126
Potential Refunds	**$ 58,737**	**$ 12,621**	**$ 46,116**
Water Resources Pump Rates	$ 88,330	$ 31,206	$ 57,124
Water Resources (16 additional locations)	$199,050	$ 79,620	$119,430
WestWorld Rate Change	$ 14,270	$ 5,680	$ 8,520
Water Resources (4 additional locations)	$ 19,480	$ 7,792	$ 11,688
Potential Rate Savings	**$321,060**	**$124,298**	**$196,762**
Total Potential Annual Savings	**$379,797**	**$136,919**	**$242,878**

Source: UAI's March 1, 2011 Status Report, APS Corrected Billing for Site 85, and auditor analysis of contingency fee rates.

MANAGEMENT RESPONSE

Due to the ongoing nature of these audit results, a formal management response was not requested. However, the draft report was provided for management review and comment on March 8, 2011.

City Auditor's Office
4021 N. 75th St., Suite 105
Scottsdale, Arizona 85251
(480) 312-7756
http://www.ScottsdaleAZ.gov
Search: "auditor"

Audit Committee
Vice Mayor Robert Littlefield, Chairman
Councilwoman Lisa Borowsky
Councilwoman Suzanne Klapp

City Auditor's Office
Kyla Anderson, Senior Auditor
Joyce Gilbride, Assistant City Auditor
Lisa Gurtler, Assistant City Auditor
Erika Keel, Auditor
Joanna Munar, Senior Auditor
Lee Pettit, Senior Auditor
Sharron Walker, City Auditor

The City Auditor's Office provides independent research, analysis, consultation, and educational services to promote operational efficiency, effectiveness, accountability, and integrity in response to City needs.