Seattle City Light Billable Services Audit

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REPORT SUMMARY

Seattle City Light needs to improve its controls over billing and collecting revenues for new electrical connections and related services. This report includes 18 recommendations to improve the accuracy, completeness, and timeliness of City Light's billing and revenue collection.

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SEATTLE OFFICE OF CITY AUDITOR

Report Highlights

Background

Seattle has been experiencing a boom in building construction activities, particularly in the downtown area. According to the Downtown Seattle Association, the number of projects finishing construction in downtown Seattle in 2015 was the highest since tracking began. As of February 2016, the Association stated that 39 projects were under construction totaling $3 billion in value.

In an environment of booming construction, new electric service connections are in high demand. High demand for service connections can stress Seattle City Light's existing internal controls making it difficult to achieve management objectives related to billing and revenue collection activities and may create opportunities for fraud, such as the misappropriation of materials, equipment, or payments.

Accordingly, we conducted an audit of Seattle City Light's internal controls surrounding its billing and revenue collection processes for new electric services.

What We Found

We found that many internal controls necessary to accomplish City Light's objectives of accurate, complete, and timely billing and revenue collection for new electric services were either ineffective or lacking.

We tested 100 time and materials billing transactions, and in some cases we found evidence of either over or under billing for services. We also identified billing adjustments that were not supported with sufficient documentation, including two large projects with a potential customer under billing as high as $136,000 and a potential customer overbilling as high as $117,000. If billing for new and related services is not well controlled over time, unrecovered billable costs due to customer under billing may need to be recovered in the form of higher electric utility rates.

Recommendations

We made 18 recommendations to help improve the accuracy, completeness, and timeliness of City Light's billing and revenue collection processes. One of these recommendations is for City Light to follow-up on billing discrepancies identified during the audit of $10,000 or more, including the two projects described above with adjustments totaling $253,000, to determine if additional customer billing or refunds are appropriate. City Light's formal response to our report is in Appendix A. City Light generally agreed with our recommendations.

WHY WE DID THIS AUDIT

We determined that an audit of internal controls surrounding the billing and collection process for service connections at Seattle City Light was appropriate based on our assessment of the risks inherent in this process. In 2015, service connections and related billing revenues exceeded $20 million.

HOW WE DID THIS AUDIT

We gained an understanding of the current processes involved in billing and revenue collection activities at Seattle City Light through interviews of personnel in the business units involved in planning, construction, and billing. We reviewed process documentation, policies and procedures, training documents, customer agreements, and other documents. We tested 100 time and materials projects to determine the accuracy, completeness, and timeliness of City Light's billing and revenue collection activities.

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I. INTRODUCTION

Audit Overview

Seattle's booming building construction and corresponding high demand for new electric services has challenged Seattle City Light (City Light) to allocate its resources to complete an increasing volume of planning, scheduling, construction, and billing activities. High demand for service connections can stress internal controls, make it difficult to achieve management objectives related to accurate and timely billing and revenue collection, and create opportunities for fraud, such as the misappropriation of materials, equipment, and cash.

The focus of our audit was to determine whether internal controls (controls)[1] over City Light's billing and revenue collection process for new electric service connections and other related services were designed properly and operating effectively. The audit's scope covered new and related services projects created in City Light's Work and Asset and Management System (WAMS) between July 1, 2011 and December 31, 2014, with a focus on time and materials projects.[2]

We gained an understanding of City Light's processes for billing and revenue collection activities through interviews of personnel in the business units involved in planning, construction, and billing. We reviewed process documentation, policies and procedures, training documents, customer agreements, and other documents. See Appendix B for a general description of City Light's time and materials process for new service connections.

We tested 100 time and materials based projects to determine if billing and revenue collections were accurate, complete, and timely. We also tested the effectiveness of certain controls in City Light's billing and revenue collection processes. We identified control weaknesses, including ones that could create the opportunity for fraud and possible billing inaccuracies.

As a result of our process reviews and testing, we made 18 recommendations to address findings relating to billing accuracy, timeliness of billing, revenue collection, cash handling, and the control environment.[3] One of these recommendations is for City Light to follow-up on billing discrepancies identified during the audit of $10,000 or more, including two projects with adjustments totaling approximately $253,000 to determine if an additional customer billing or refund is appropriate.

For further information on the objectives, scope, and methodology of this audit, see Section III of this report. City Light's formal response to our report is in Appendix A. City Light generally agreed with our recommendations.

[1] Internal control is broadly defined as a process, affected by an entity's board of directors, management and other personnel, designed to provide reasonable assurance regarding the achievement of objectives.
[2] Time and materials refers to a method of billing in which the price paid by the customer for installing new or related services equals the cost incurred by City Light, including labor, materials, overheads, and in some cases, third-party costs.
[3] In an audit, the control environment refers to the overall tone of the organization. This tone reflects the attitude, awareness, and actions of the board of directors, management, and owners who influence the control consciousness of its people. It is the foundation for all other components of internal control.

Background

Electric service connection projects are often complex and require coordination between several City Light business units, including Engineering, Accounting, Field Operations, Metering, and Customer Care (service representatives and cashiers). Personnel from the various business units involved in these projects may be assigned to any one of three City Light locations: North Service Center, South Service Center, or the Seattle Municipal Tower in downtown Seattle. Resources required for constructing service connections include labor (operations and meter crews), materials (including distribution wire and conduit), and equipment (transformers and meters). Resources may also be needed from outside of City Light, such as contracted labor or rented equipment.

The primary software system used by City Light to record and track service work is the Work and Asset Management System (WAMS). WAMS interfaces with Summit, the City's financial accounting system of record, which captures all project costs. WAMS is used to record and track work activities and, in some cases, costs associated with labor. It is also used to record customer information, the type of work to be performed, and invoicing and payment information.

An example of a simple service connection is the installation of a meter and a service wire from a residence to the distribution lines on the street. This type of service typically costs several hundred dollars. A complex service may involve additional work such as installation of several customer transformers in vaults, extensive excavation and street work (tearing up and re-paving), moving existing distribution lines to accommodate service connection work, or constructing additional distribution lines to bring the system to newly served areas. The cost of large projects may be in the hundreds of thousands of dollars and some may exceed a million dollars.

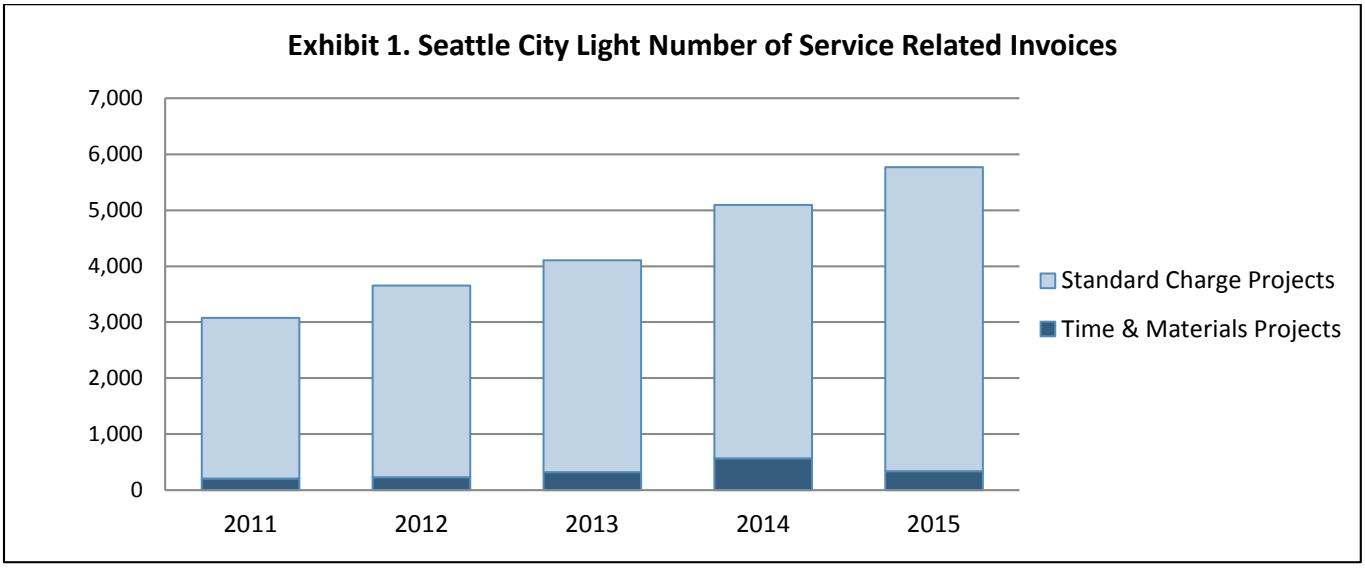
There are two types of fee structures for the payment of service connections and related costs:

- Standard Charge: In this arrangement, the customer pays a fixed cost for the work. The fees for various components of the work are published by City Light and adjusted each year to reflect current costs.
- Time and Materials Billing: For projects that exceed $35,000 or $75,000, depending on their location, charges are based on actual billable[4] time and materials costs, including overhead costs. The cost is initially estimated, and then at the end of the project any costs in excess of the estimate are billed. If actual costs are less than estimated, a refund for the difference is due to the customer.

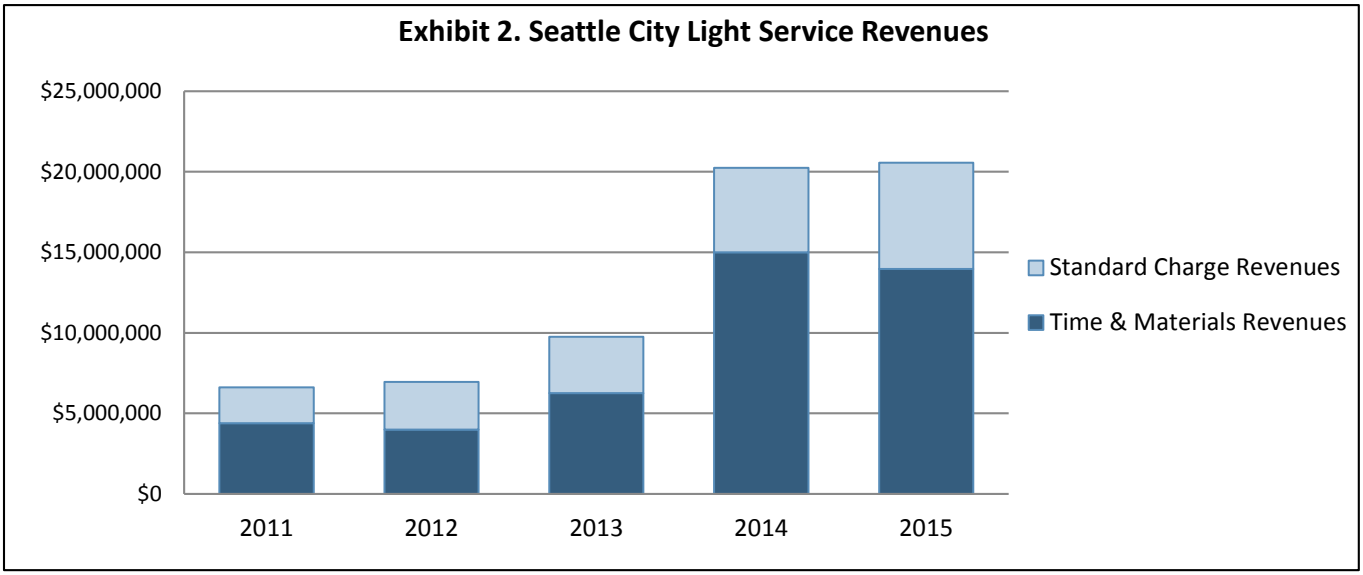
For a small number of projects, a lump sum project cost may be negotiated for what otherwise would be a time and materials related project.

Exhibit 1 shows the number of service related invoices generated by City Light between 2011 and 2015 for both standard charge and time and materials based projects. Exhibit 2 shows the total billing revenues for standard charge and time and materials service connections between 2011 and 2015. The exhibits show that standard charge invoices represent approximately 92% of all invoices for 2011 through 2015. However, time and materials projects, the focus of this audit, represent 68% of all *revenues* for the same period.

[4] Some costs incurred by City Light are not billable to the customer, such as work that enhances the distribution system for all customers.



Source: Office of City Auditor summary of Seattle City Light data.



Source: Office of City Auditor summary of Seattle City Light data.

In 2014, revenues from City Light service connections totaled approximately 2.2% of the department's revenues. While this is a small percentage of City Light's total revenue, in 2014 it was equivalent to $20.2 million.

Summary of Results

Due to the complexity and high cost of time and materials related projects, strong internal controls are necessary to ensure City Light bills customers accurately, completely, and timely and to reduce the risk of fraud.

Through our testing of 100 time and materials service connection projects and our review of City Light's billing and revenue collection processes, we identified both control weaknesses and billing inaccuracies. We categorized our findings into five main areas: A) completeness and accuracy of billing, B) timeliness of billing and revenue collection, C) cash handling, D) monitoring and oversight of refunds, and E) control environment. Although we did not identify specific instances of fraud, the control weaknesses noted could

create opportunities for fraud. Our report includes 18 recommendations to strengthen controls and reduce the risk of fraud.

The audit's scope spanned multiple years, and City Light reported to us that they began improving internal controls in 2014; however, our test results identified concerns from projects that were completed as recently as 2014.

A. Completeness and Accuracy of Billing

Billing accuracy for time and materials based projects is dependent on capturing all project costs, appropriately identifying billable and non-billable costs, and analyzing billable costs against the original estimate to identify any billing or estimating errors. Further, to help ensure billing is accurate and complete, any adjustments made to billable costs should be documented and approved. Through our testing, we identified the following conditions that could impair billing accuracy and completeness:

- Not all project work tasks were recorded in the Work and Asset Management System (WAMS) as "finished" at the time the project was billed, raising concerns that City Light was billing before completion of the work. Work tasks are supposed to be updated in WAMS to the "finished" status when they are completed. See Recommendation 1.
- Not all project work tasks recorded on the final bill review document[5] were also recorded on the Summit work order. Conversely, not all project work tasks recorded on the Summit work order were also recorded on the final bill review document. Missing tasks could result in under billing the customer or in understating capital asset values. See Recommendation 2.
- The billable costs we computed from the Summit work order for several projects we tested did not agree to the customer billing on the final bill invoice.[6] Some of the differences were the result of adjustments to billable costs made by engineers after they received the final bill review, and these adjustments were not also reflected on the Summit work order. Other differences resulted from costs recorded on the Summit work order not also reflected on the final bill review. This condition either affects the accuracy of time and materials billing or the accuracy of the capital costs of the project. See Recommendation 3.
- We noted adjustments made on several final bill review documents by engineers that resulted in reducing the amount of billable charges. On some final bill reviews, the reasons for the adjustments were not adequately documented, while on others, the reasons were not documented at all. In one such project, the final bill review was not signed by the engineer or Engineering Supervisor as required by City Light policy[7]. See Recommendation 4.
- City Light policy requires engineers to perform cost variance analyses on time and materials based projects when actual costs vary from estimated costs by 10% or more. Variance analyses is a key control for detecting errors or omissions in customer billing that results in over or under billing the customer. We identified projects either without sufficient documentation of the variance or without any documentation. See Recommendation 5.
- City Light policy requires the engineer and the Engineering Supervisor to review and approve all costs charged to a time and materials project before customer billing. However, we found that

[5] The final bill review is a document that shows both the details and summary of costs for a project at completion. It is used by City Light Engineering to review and approve project costs for billing on time and materials projects before a final invoice is sent to the customer.
[6] In general, for time and materials related billing, all billable costs captured in the Summit work order should be billed to the customer on the final bill invoice. The exception is when an additional credit to billable project costs is provided to the customer as a "courtesy" under circumstances deemed appropriate by City Light (e.g., when project costs were significantly underestimated).
[7] Final bill review associated with Invoice L000692EF

documentation of the engineer and/or engineer's supervisor approval was missing from several final bill review documents. See Recommendation 6.

B. Timeliness of Billing and Revenue Collection

Time is of the essence in reviewing, approving, and billing a completed project and collecting funds, as a delay could result in non-collection of substantial balances. For this reason, City Light policy requires that most project costs be collected at or before completion of the project, thereby mitigating the risk of non-collection of any remaining balances.[8] We identified the following conditions related to the timeliness of billing and collecting revenues:

- For the 100 projects we tested, we found that 43 projects exceeded 120 days from project completion to final billing. Nineteen of those projects exceeded 200 days. The highest number of days from completion to final billing was 470. Delays in billing increase the risk of not collecting customer funds. See Recommendation 7.
- City Light uses a report referred to as the "Action List" to track the timeliness of time and materials final billing. We identified 38 estimated billings on the report for which follow-up was not timely and an additional 23 time and material billings that did not appear on the Action List. See Recommendation 8.
- We tested the timeliness of customer payments on final bill invoices to determine whether invoice balances were paid in accordance with the invoice terms. We found that in 10 out of 100 invoices tested, balances remained unpaid beyond the terms of the invoice. The oldest date for which balances were still due was August 2014. The aggregate total of unpaid balances was $178,533 at the time of our testing. An additional 25 customers had paid their final bill late by an average of 56 days past due. The longest number of days paid beyond terms was 286. See Recommendation 9.
- In 4 out of the 100 projects we tested, contrary to City Light policy, estimated payments totaling about $400,000 were not received before service connection or project completion. Any portion of the estimate not paid must be billed on open account terms (e.g., due in 30 days) and is subject to the risk of non-payment. See Recommendation 10.

C. Cash Handling

Cash handling activities are a concern due to the potentially high dollar amounts involved with complex projects and in light of an over $1 million cash handling fraud that was discovered in 2012 at Seattle Public Utilities. It's important that City Light maintain appropriate segregation of duties in handling cash to reduce the risk of cash misappropriation.

- We reviewed controls relating to employees' handling of cash, both when receiving customer payments and when refunding overpayments. City Light's policies restrict the handling of incoming customer payments to personnel from the City's Department of Finance and Administrative Services or to City Light cashiers. We found that City Light management does not enforce these policies. See Recommendation 11.
- We found that the same person who processes customer refunds also handles refund checks before they are mailed. This practice violates cash handling best practice controls that require the segregation of incompatible duties. See Recommendation 12.

[8] The customer is responsible for paying the estimated cost of the project prior to completion. If the estimated cost is relatively accurate, there will be a small balance left to collect from or refund to the customer at the conclusion of the project.

D. Monitoring and Oversight of Refunds

Some customers may be entitled to a refund after a new service is installed, depending on whether the customer meets certain usage requirements or whether additional customers connect to the distribution system. Monitoring and oversight of completed projects subject to conditional refunds is important to help ensure refunds are correctly determined. We found that refunds monitoring and oversight was lacking for two types of conditional refunds.

- Electrical Service Engineers do not monitor the status of conditional refunds for residential and commercial three-phase line extensions. As a result, customers entitled to the refunds may not receive them. In addition, City Light may not have accrued for liabilities associated with unpaid refunds. See Recommendation 13.
- During the audit, City Light was unable to provide a list of customers who are subject to the City Light ordinance that provides for conditional refunds of deposits for transformers and network protectors. As a result, City Light may have failed to (a) collect the appropriate deposits, (b) refund the deposits as required, or (c) bill customers for transformer charges. See Recommendation 14.

E. Control Environment

Achievement of organizational objectives starts with the control environment, which is the foundation for all other components of internal control and includes integrity, ethical values, and policies and procedures. It also includes management's philosophy and operating style, referred to as "tone at the top."

- The identification and assessment of risks, implementation of controls to mitigate those risks, and monitoring of controls to help ensure their effectiveness are essential elements of a strong control environment. Through our discussions with City Light management, we found that these risk assessment and control activates were not performed in the area of billable services. We received a risk assessment plan from City Light, however, we were unable to verify when such risk assessments will be performed for billable services activities. See Recommendation 15.
- The City of Seattle has a whistleblower program in place that is administered by the Seattle Ethics and Elections Commission (SEEC). We found that City Light management could strengthen its communications to its employees regarding the merits of the program to encourage its use. See Recommendation 16.
- We reviewed existing policies and procedures and found that business units involved in the construction and billing activities for service connections and related projects lacked sufficient detailed policy and procedure documentation. Detailed policies and procedures help ensure billing and revenue objectives are met. See Recommendation 17.
- We looked at how City Light tracks thousands of work orders and service request documents in WAMS, the system used to record customer and construction data for service connections and related projects. We found that not all such documents were accounted for by City Light in WAMS. Missing WAMS records could result in delayed or missed billings. See Recommendation 18.

II. RESULTS AND RECOMMENDATIONS

We made several recommendations to improve internal controls over City Light's billing and revenue collection processes.

A. Completeness and Accuracy of Billing

Recommendations 1 through 6 relate to controls that help ensure the completeness and accuracy of customer billing.

Recommendation 1: Ensure WAMS Work Order Tasks are Updated to "Finished" Before the Engineer's Approval of the Final Bill Review.

Finding

When WAMS work orders are created for time and materials projects, individual work tasks are also created to document each work activity. For example, tasks must be created to capture activities relating to engineering design, crew work, and meter installations. Included in the tasks are notes and descriptions of the work, as well as the date each task was completed. In 13 out of 100 time and materials projects we tested, not all tasks in the WAMS work order were updated to the "finished" status at the time the final bill review document was prepared for review by City Light Engineering. The final bill review document is used by General Accounting to generate the final bill invoice.

Impact

- If a work order task is not updated to the "finished" status at the time of final bill review preparation, this may indicate that the task has not been completed and that all costs have not been recorded for the task in the Summit work order, resulting in under billing and the understatement of capital costs for the project.
- Unless all tasks are updated to "finished," the work order cannot be closed, leaving the work order vulnerable to the posting of additional project costs after the final invoice has been generated or the posting of costs related to another project.

Recommendation 1

a. The City Light Engineer and Engineering Supervisor should verify that all tasks have been completed and have been updated to the "finished" status before approving the final bill review. The billing technician in City Light General Accounting should verify that all tasks in WAMS are in the finished status before generating the final bill invoice. These requirements should be documented in City Light policies and procedures.

b. City Light should investigate projects from our test sample in which one or more tasks were not updated to the "finished" status and determine if all costs were appropriately billed to the customer and recorded in the Summit work order.

Recommendation 2: Reconcile Work Order Tasks Recorded in the WAMS Work Order, the Summit Work Order, and the Final Bill Review Document.

Finding

According to City Light management, work tasks in WAMS work orders are automatically populated based on a task template. The number and type of work tasks that populate a WAMS work order

depend on the type of work to be performed. In some cases, not all tasks that populate the WAMS work order will be used for the project. Any task that is used for the project will be charged with costs and will appear on both the Summit work order[9] and the final bill review document, which is used by Engineering to approve all project costs before customer billing. Unused tasks are not charged with costs and therefore are not included in either the Summit work order or the final bill review.

During our testing of time and materials invoices, we identified variances between work tasks on the WAMS work order, Summit work order, and final bill review that resulted in either under billing or under capitalizing project costs.

- Three of the projects tested had tasks on both the WAMS work order and the Summit work order that were not also on the final bill review, resulting in under billing customers by about $8,000.[10]
- One of the projects tested had tasks in the WAMS work order and the final bill review that were not on the Summit work order, resulting in under capitalizing the project by about $5,000.[11]
- One of the projects tested had tasks on the final bill review that were in neither the WAMS work order or the Summit work order. For this project, the tasks and associated costs had been added to the final bill review by hand but were not also added to the WAMS or Summit work orders. In this case, the result was under capitalizing the project by about $17,000.[12]

Impact
Discrepancies in billable tasks between the WAMS work order, Summit work order, and the final bill review can result in either billing errors or errors in reporting capital project costs.

Recommendation 2

As part of the engineering review process, City Light management should require the reconciliation of tasks between the Summit work order, the WAMS work order, and the final bill review to help ensure that all billable project tasks are shown on all three records. Any discrepancies in billable tasks should be investigated and resolved before customer billing. This requirement should be documented in City Light policies and procedures.

Recommendation 3: Reconcile all Billable and Non-Billable Costs Before Final Billing; Lower the Threshold for Booking Journal Entries to Summit; Close all Work Orders After Final Bill Review Preparation; Back Bill as Necessary.

Finding

The final bill review document is prepared by General Accounting at the conclusion of project work, showing all billable and non-billable project costs. The Summit work order is the source of cost information shown on the final bill review. General Accounting uses an Excel billing program to differentiate billable from non-billable costs.[13] The costs are reported on the final bill review to determine the net amount to bill to the customer. General Accounting forwards the final bill review to the project engineer for review and approval, and the engineer may note further adjustments to costs on the final bill review to bring

[9] Summit is the financial system of record for the City. All costs charged to a time and materials project, whether or not billable, are captured in a Summit work order linked to the project.
[10] These final bill reviews are related to Summit invoices L000773EF, L000662EF, and L000655EF.
[11] This final bill review is related to Summit invoice L000772EF.
[12] This final bill review was related to Summit invoice L000797EF, for which tasks 3 and 7 were added by hand for a total of approximately $17,000. This amount was added to the final bill invoice. Neither task was added to the Summit work order, while only task 3 was shown in WAMS.
[13] For example, an adjustment to billable costs must be made to reflect a credit for transformers if installed on the project. This equipment is not billable to the customer.

them into line with actual project costs. The engineer then returns the final bill review to General Accounting to prepare the final bill invoice.

In 69 of the 100 time and materials invoices tested, we noted variances between the amount billed to the customer, as shown on the final bill invoice, and the total billable amount that we re-computed from the Summit work order. We forwarded the test results to City Light for review to identify the reasons for the variances. Based on our review and additional information provided by City Light, we determined that variances in billable costs resulted from one or both of the following conditions:

1. Reclassification of Project Costs between Billable and Non-Billable Costs:
   In several of the projects we tested, the project engineers had reclassified costs between billable and non-billable on the final bill review, but the Summit work order had not been updated to reflect the reclassification. For example, in one project we tested, the project engineer determined that a transformer switch should be reclassified from non-billable to billable because no other customers were served by the switch.[14] While reclassifications of costs between billable and non-billable on the final bill review do not need to be recorded in the Summit work order, such reclassifications affect the amount billed to the customer and should be authorized by the Engineering Supervisor and accompanied by supporting documentation, including supporting calculations when appropriate. In our testing, we identified cost reclassifications that did not have proper authorization or sufficient support. We describe this further in Recommendations 4 and 6.

2. Adjustments to Project Costs:
   For some projects tested, a variance occurred because project costs were added or deducted by hand on the final bill review document but were not also recorded in the Summit work order. For example, on one project, the engineer noted by hand on the final bill review the addition of billable materials. The Summit work order, however, was not updated with the material costs, resulting in the understatement of capital project costs.[15] According to Cost Accounting, City Light makes journal entries to update Summit to reflect manual adjustments made on the final bill review only if the cost difference exceeds $10,000. We believe this threshold is too high, and we also identified projects in which the variance exceeded $10,000 but Summit was still not updated.[16] Further, we found instances of additions or deductions to project costs that were not properly authorized or were not supported by calculations or with sufficient justification for the adjustment.

   In other projects, costs were recorded on the Summit work order but were not reflected on the final bill review. This can occur when costs are not recorded on the Summit work order until after the final bill review was prepared due to late recording of such costs. For example, costs may be initially posted to the wrong project in error and later reclassified to the correct project through a journal entry after the final bill review was prepared. If the Summit work order is not closed at the time the final bill review was prepared for review by Engineering, such costs may continue to accrue. When billable costs in Summit are not included in the final bill review, the result is customer under billing. We found 11 projects in which costs continued to accrue to Summit work orders after both the final bill review and the final bill invoice was prepared.

Impact

The conditions described above in numbers 1 and 2 may result in:

- Over or under billing the customer.
- Misstatement of capital project costs.

[14] Project associated with Invoice L000627EF.
[15] Project associated with Invoice L000582EF.
[16] For example, the project associated with Invoice L000673EF.

- Fraudulent mischarges to Summit work orders that go undetected due to either (a) inappropriate engineering adjustments, or (b) costs from other projects that are intentionally recorded on the Summit work order after final billing but before the project is closed in Summit.
- Increase in electric rates if lack of billable cost recovery is substantial over time.

Recommendation 3

We recommend City Light management take the following actions to address this finding. These requirements should be documented in City Light policies and procedures.

a. Require City Light General or Cost Accounting to reconcile all costs reported on the final bill review document with the Summit work order, both before forwarding the final bill review to the engineer and again after receiving it back from the engineer, and follow-up on any identified discrepancies before generating the final bill invoice.

b. Enforce the policy to update the Summit work order to reflect cost adjustments recorded on the final bill review, when necessary and in accordance with dollar thresholds established by City Light Policy, to help ensure the accuracy of the project's capital cost. Lower the current $10,000 journal entry threshold for recording adjustments to the Summit work order to discourage smaller, potentially fraudulent adjustments to the final bill review. Additionally, document reasons for journal entry adjustments in the Summit work order and ensure all adjustments are approved by management.

c. Since the final bill invoices we tested were from 2014 or earlier, City Light should determine the reasons for the billing discrepancies identified in our testing and confer with the City Law Department about whether City Light can legally bill for additional costs. Based on advice from the City Law Department, generate additional billing or refunds to customers as appropriate for billing discrepancies of $10,000 or more.

d. Require that both WAMS and Summit work orders be closed once the final bill review has been prepared by General Accounting for all time and materials projects.[17] Once the work orders are closed, no further costs can be posted to the Summit work order without first re-opening the work order, which can only be done by Cost Accounting.

e. Place customers on notice that additional costs may be billed if City Light discovers that project costs were under billed for time and materials related projects.[18] This can be accomplished by updating the customer service agreement to allow for the additional billing when required by policy. In addition, we recommend the word "final" be removed from what is now known as the final bill invoice, in which customers are billed or credited for the cost true-up of the project. Notice should also be printed on the true-up invoices stating that additional costs may be billed to correct the prior invoice if required. City Light and City Law should determine a reasonable period of time during which such additional billings could be collected.

Recommendation 4: Require Authorization and Documentation of Engineer Adjustments to Billable Charges.

Finding

During testing of time and materials projects, we noted adjustments made on several final bill review documents by engineers that resulted in reducing the amount of billable charges. The adjustments were

[17] General Accounting needs to allow an appropriate amount of time to lapse to ensure that all project costs are captured in the Summit work order before the final bill review is prepared. The amount of time required will depend on the complexity and size of the project. It will also depend on the extent 3rd party vendors are used to account for the risk of late billing from the vendors.
[18] For example, if additional billable costs accrue to the work order after the final bill invoice was sent.

noted as a direct reduction of material and/or labor costs, as a line item deduction included with the list of customer payments, or in some cases, as a reclassification of costs from billable to non-billable. On some final bill reviews, the reasons and supporting documentation for the adjustments were not clearly documented while in others they were not documented at all. In one case, the final bill review was not signed by the Engineer or Engineering Supervisor as required. Two of the adjustments that are still in question total as much as $253,000.[19]

Impact

The lack of sufficient and documented support for reducing billable costs creates the opportunity for undetected billing error or fraud. For example, adjustments could be made to lower the billable costs to the customer in exchange for a benefit provided to the project engineer.

Recommendation 4

City Light management should take the following actions to address this finding. These requirements should be documented in City Light policies and procedures.

a. Require manager or director level authorization in addition to the current authorizations provided by the engineer and engineering supervisor for all high dollar write-down adjustments of billable charges, subject to defined dollar thresholds set by policy.

b. Require reasons for the adjustment and supporting evidence or analysis to be clearly documented either on the final bill review or on documents attached to it. The documentation should be reviewed and approved by the Engineering Supervisor, General Accounting, or both.

c. If electronic approvals are used, such as emails from engineers or supervisors, require the approvals to be conclusively linked to the final bill review by referencing the WAMS work order number.

d. City Light management should investigate all high dollar adjustments noted in our testing, including the $253,000 in adjustments noted above.

Recommendation 5: Enforce Requirement to Perform Variance Analysis.

Finding

Variance analysis on time and materials projects is not always performed as required by City Light policy DPP 500 P III-417, sections 6.2.7, 6.3.3, and 6.5.4. City Light policies require engineers to perform cost variance analysis procedures on time and materials based projects when actual costs vary from estimated costs by 10% or more. The analysis is a key control for detecting errors or omissions in customer billing that may result in over or under billing the customer. The analysis also provides feedback to engineers and project managers as to the accuracy of the project estimates. Estimating costs with relative precision reduces excess costs that must be billed on account at the end of the project.

[19] There were two projects from which we computed this total adjustment amount. In the first project, the City Light project engineer applied a fixed cost to the project based on a letter from City Light management to the customer. Based on our review of the letter and conversations with City Light management, we believe that the project should have been billed on a time and materials basis. Accordingly, we estimated the approximate billable cost of the project by applying to the actual project costs the same ratio of billable vs. non-billable costs reflected in the letter, resulting in a potential under billing to the customer of about $136,000. In the second project, we determined the overbilling to the customer could be as high as about $117,000. On this project, the customer was billed for damage made to City Light's infrastructure, but City Light could not provide documentation of the actual dollar amount of the damage.

We tested 33 final bill review documents in which the variance between actual and estimated billing was 25% or more. Test results showed that 22 of those projects had no documentation of the variance. An additional 5 projects had insufficient documentation.

Impact

- Errors in billing may go undetected. If the result of the cost variance is due to mischarges to the Summit work order when such charges or credits belong to another project, more than one customer could be affected by a billing error.
- The inaccuracy of City Light cost estimates may not be detected. Underestimating costs increases amounts billed on open account on the final bill invoice, increasing payment collection risk.
- The lack of variance analysis could create the opportunity for fraud. For example, attempts to purposely mischarge costs to a different project in order reduce billable charges may go undetected.

Recommendation 5

We recommend City Light management take the following actions to address this finding. These requirements should be documented in City Light policies and procedures.

a. Enforce the requirement to perform variance analysis in accordance with City Light's department policies and procedures. The Engineering Supervisor should only sign off on the final bill review if the variance analysis, when required, is clearly documented and includes reasonable explanations as to the cause of the variance. In cases when the cause of variance can be identified, there should be supporting calculations.

b. Require General Accounting to ensure variances are appropriately documented on the final bill review for all variances in excess of 10% before generating the final bill invoice.

c. Engineering management should independently investigate projects that our tests identified as resulting in a high dollar customer refund (e.g., $10,000 or greater). Review both the prepared estimate and the as-built drawings to determine the completeness of the billing on each project and to rule out the possibility of billing improprieties that resulted in over refunding the customer.[20]

Recommendation 6: Require Documented Engineering and Supervisory Reviews for All Time and Materials Billing.

Finding

We found during our testing that 9 final bill review documents lacked the engineer's signature to evidence their review and approval of project costs. All of these final bill reviews were prepared in 2014.

A final bill review document is prepared by billing personnel in the General Accounting business unit at the completion of a time and materials based project. The document's purpose is to provide detail and summary information of billable and non-billable costs to the project engineer for review and approval before final billing. The review is an internal control to help ensure the accuracy and completeness of the customer billing. The approval is evidenced by the engineer's signature on the final bill review. A second

[20] There were 19 projects tested in which the customer refund was $10,000 or greater. The aggregate amount of the refund for all 19 projects was approximately $564,000.

review is performed by the Engineering Supervisor who also signs the final bill review. The Engineering Supervisor then forwards the final bill review to General Accounting to generate the customer billing.

Impact

Time and materials based service work is complex in nature. The lack of engineer and supervisor signatures on the final bill review may indicate that project costs were not appropriately reviewed. As a result, errors in costs charged to the project, including those that may have been charged intentionally, for example to reduce costs on another project, may go undetected and result in errors in customer billing. The lack of Engineering Supervisor reviews may create the opportunity for unauthorized cost adjustments made by the engineer.

Recommendation 6

City Light management should take the following actions to address this finding. These requirements should be documented in City Light policies and procedures.

a. Enforce the requirement for Engineering and Engineering Supervisory reviews for all time and materials projects. The requirement should include the specific attributes of project costs to be reviewed and approved by both the project engineer and the Engineering Supervisor.[21] The reviews should be evidenced in the form of both signatures on the final bill review document or in electronic form (e.g., email) that can be conclusively linked to the final bill review through cross referencing (e.g., by providing the WAMS work order number).

b. Require General Accounting to verify that *both* engineering signatures are present on the final bill review before generating the customer final bill invoice. The names of the engineers signing the final bill review should also be printed so General Accounting personnel can verify the appropriate project engineer and supervisor approved the final bill review.

B. Timeliness of Billing and Revenue Collection

Recommendations 7 through 10 relate to controls over the timeliness of customer billing and cash collection.

Recommendation 7: Improve Timeliness of Final Billing.

Finding

Upon completion of a time and materials project, General Accounting is notified by the project engineer or by project managers to prepare a final bill review document, which details all billable and non-billable project costs. The final bill review is sent to the Project Engineer and the Engineering Supervisor for review and written approval. The final bill review document is then returned to General Accounting to prepare a final bill invoice.

When testing the timeliness of final bill invoice processing, we found several projects with delays in generating the final bill invoice. We measured the timeliness of City Light's billing processes based on our process flow reviews, City's Lights internal billing procedures, and input from City Light management. We identified delays in each of the four billing processes we tested as discussed below.[22]

[21] Examples of attributes to be reviewed could include whether the totals per the task details on the final bill review agree to summary totals on the final bill review cover sheet and whether the classification of non-billable versus billable charges is appropriate.
[22] Some projects were not included in the counts described in (a) through (d) as some dates necessary for the timeliness calculations were missing. For example, we could not calculate the project's completion date because some of the tasks in WAMS had not been updated to the

a) **From the completion of the project to the generation of the final bill review document:** Forty-one percent (41%) of the projects exceeded 60 days for this process.[23] Twenty five percent (25%) of the projects exceeded 100 days. The highest numbers of days was 392.

b) **From the generation of the final bill review document to the engineer/engineer supervisor's approval of the document:** Eighteen percent (18%) of the projects exceeded 60 days for this process. Five percent (5%) of the projects exceeded 100 days. The highest number of days was 442. According to the procedures required by General Accounting,[24] engineers should review, approve, and return the final bill review document to billing personnel within three weeks upon receipt.

c) **From the engineer/engineer supervisor's approval of the final bill review document to the generation of the final bill invoice**: Eleven percent (11%) of the projects exceeded 60 days for this process. Three percent (3%) of the projects exceeded 100 days. The highest number of days was 221.

d) **From completion of the project to the generation of the final bill invoice:** Forty three percent (43%) of the projects exceeded 120 days, which is the time period between the processes described in (a) through (c) above. Nineteen percent (19%) of the projects exceeded 200 days. The highest number of days was 470.

Impact

- Delays in processing final bill invoices increase the risk of the non-collection of unpaid balances. We note that some customers form limited liability companies (LLC's) for the purpose of constructing real property. Not long after the end of construction, the LLC's are terminated; therefore, time is of the essence in sending the final bill invoice to these customers.
- The Summit work order remains open for a longer period of time, increasing the risk of mischarging costs to the work order either in error or intentionally to fraudulently reduce charges on other work orders.

Recommendation *7*

City Light management should take the following actions to address this finding.

A. City Light management should determine the reasons for significant delays identified in our test samples. In collaboration with Engineering, Customer Care, Technical Metering, Energy Delivery Operations, and General Accounting, identify all conditions that may cause unnecessary delays and implement solutions to minimize delays.[25]

B. City Light should develop timeliness goals for each of the process steps as identified in (a) through (c) above, monitor performance, and implement controls to help ensure goals are achieved.

"finished" status. In other projects, we could not read the approval dates on the final bill review document or there was no approval date indicated. As a result, the percentages listed in (a) through (d) above may be understated.

[23] Until 2014, Cost Accounting was responsible for generating the final bill review document. Thereafter, the responsibility shifted to General Accounting.

[24] "Time and Materials Final Bill Package Desktop Procedures" was written for use by General Accounting when billing time and materials related projects.

[25] For example, to address delays in vendor billing that require vendors to bill City Light within 30 days following delivery of goods or services in contractual agreements.

Recommendation 8: Improve the Effectiveness of Billing Tracking Reports.

Finding

City Light uses a report known as the "Action List" to monitor the status of time and materials projects. The report includes all time and materials projects for which City Light has billed for the initial estimate but has not yet billed the final invoice. General Accounting uses the report to follow up with Engineering on projects to help ensure the timeliness of final billing.

Each month, time and material invoices (both estimated and final bill invoices) are downloaded from Summit into the Action List, which is an Excel spreadsheet. Time and materials based invoices are designated with an alpha code as part of the invoice number. Downloaded invoices for estimated charges that have no match to a final billing are maintained on the list for follow-up by General Accounting billing personnel.

We tested the effectiveness of the Action List report as a control and found that documented follow-up was not evident for several projects listed on the report. In our review of the Action List report, we noted the following concerns:

1. From our review of the Action List for August 2015, we identified 38 projects for which there was no timely documented follow-up. Twenty five of the projects were noted as "In Progress"[26] for which there was no documentation of follow-up for at least six months or longer. The oldest project in this category was last charged to in January 2013. An additional 13 projects were noted as "Completed," for which there was no documentation of follow-up for at least 2 months. The oldest project in this category was last charged to in October 2009.
2. From our test population of time and materials invoices, we noted eight estimated invoices that were coded as time and materials related and should have appeared on the Action List but did not. The aggregate billing amount of these invoices was approximately $679,000.
3. From our test population of time and materials invoices, we noted at least 15 invoices that appeared to be time and materials related but were not coded with alpha characters as part of the invoice number. As a result, these invoices would not have appeared on the Action List for tracking and follow up.

Impact

Each of the three conditions above may result in the lack of timely follow-up which could lead to the delayed final billing of time and materials related projects. Delayed billing increases the risk of the non-collection of outstanding project balances and of mischarges to the Summit work order, similar to the impact in Finding 7 above.

Recommendation 8

We recommend City Light management take the following actions to address this finding. These requirements should be documented in City Light policies and procedures.

a. Implement controls to help ensure the timeliness of Action List follow-up, thereby improving the effectiveness of the control. For example, the Cost Accounting Manager could review the Action List periodically to ensure the documentation of timely follow-up. Alternatively, implement other controls in place of the Action List to help ensure timely follow-up by General Accounting.

[26] Projects noted as "In Progress" are a concern if they have not been completed in a timely manner. It's possible that such projects have been completed but have not been noted as such, warranting follow-up from General Accounting.

b. Implement controls to help ensure that all time and materials invoices are properly alpha coded. For example, consider a second review by General Accounting personnel of the invoice number coding during both the initial and final billing process.

Recommendation 9: Implement Controls Over Timely Collection of Final Bill Balances Due.

Finding

City Light policy[27] states that Electrical Service Engineers (ESE's) who serve as project managers are responsible for follow-up with customers to ensure final bill invoice balances are paid timely for time and materials related projects.[28]

We tested the timeliness of customer payments on final bill invoices from our sample to determine if invoice balances were paid on time in accordance with the invoice terms. We found that in 10 out of 100 invoices tested, balances remained unpaid and were past due. The oldest date for which a balance was due was August 2014. The total of unpaid balances was $178,533 at the time of our testing. An additional 25 customers had paid their final bill late by an average of 56 days past due. The longest number of days paid beyond terms was 286.

We also tested whether monthly accounts receivable aging reports showing amounts unpaid for time and materials projects were sent to ESE's and ESR's for follow-up. We determined from our review the control was ineffective. For example, in the March 2016 time and materials invoice aging report provided to us by General Accounting, about 92% of amounts billed were aged at 181 days or more past due , amounting to approximately $1.1 million. The status column on the report was largely blank, which made it unclear whether there was follow up by ESE's and ESR's.

Impact

Outstanding customer balances that are not collected timely could result in delayed recovery or, in some cases, non-recovery of final bill invoice balances due from customers.

Recommendation 9

City Light management should enforce current procedures for timely follow-up of past due balances and document the requirement in written policies and procedures.

Recommendation 10: Implement Controls to Ensure Compliance with Customer Payment Requirements.

Finding

In 4 of 100 time and material projects we tested, estimated payments totaling about $400,000 were not received from customers until after the date of connection or completion of the service. City Light's Department Policies and Procedures, DPP 500 P III-417, requires estimated payments be received from the customer before the connection or completion of the service. We note that Seattle Public Utilities owed City Light about $55,000 of the $400,000. Although a project for another City department does not pose a significant risk of non-payment, we included this project as an exception because City Light policies and procedures do not distinguish between City and non-City customers when requiring that estimated payments be received prior to connection or service completion.

[27] DPP 500 P III-417, paragraph 6.4.9: ESE responsibilities to collect delinquent payments.

[28] This requirement also applies to Electrical Service Representatives (ESR's), though not specifically stated in the DPP.

Engineers initially prepare cost estimates for time and materials related projects, based on customer requirements. The project manager (ESE/ESR) is responsible for ensuring the customer has paid 100% of the cost estimate before connection to the service or upon completion of the work (for other services) by verifying payment in the WAMS system. At the project's completion, the customer is either billed (if actual costs exceed estimated costs) or credited and refunded (if estimated costs exceed actual costs). These payment terms are stated in writing in Attachment A of the Seattle City Light Cost Estimate of the Service Construction Letter, signed by the customer. An exception to this policy is when the proper authority at City Light approves a written customer request to pay the estimated charges on different terms.

Impact

Any unpaid portion of the estimated cost is carried to the final bill invoice balance that is billed to the customer on open account terms, generally due within 30 to 90 days. Billing on open account terms increases the risk of non-collection of unpaid balances.

Recommendation 10

We recommend City Light management take the following actions to address this finding. These requirements should be documented in City Light policies and procedures.

a. Enforce the requirement for project managers to verify payment before completion or connection to the service.

b. In cases when the estimated payment was not collected in full as required, General Accounting should notify the ESE/ESR manager at the time the final bill review document is prepared. The ESE/ESR manager should follow-up with the appropriate ESEs or ESRs to immediately collect any balances.

C. Cash Handling

Recommendations 11 and 12 relate to controls over cash handling and collection to help prevent the misappropriation of customer payments.

Recommendation 11: Enforce Compliance with Customer Payment Handling Policies.

Finding

In response to a fraud committed by a former City of Seattle employee,[29] City Light asked an independent accounting firm to perform procedures to determine if sufficient controls existed over City Light's customer payment receipt process.[30] The firm focused on all points where City Light payments are handled by employees before deposit. As a result of the audit firm's recommendations, City Light adopted policies and procedures to strengthen controls surrounding the cash handling process, including requiring that all customer payments made by mail be directed to various post office boxes.[31] One of the post office boxes was established specifically for new service connections and other related services. Funds received at the designated post office box are picked up and deposited by the Department of

[29] A former Seattle Public Utilities engineer pled guilty in 2013 of embezzling more than $1 million he personally received in customer payments for construction services.

[30] Agreed-Upon Procedures engagement performed by Baker Tilly dated April 20, 2012.

[31] Effective June 13, 2012, four lock boxes were set up to receive escrow payments, rental property payments, conservation payments, and all other non-utility service payments. The post office box established to receive payments under the scope of this audit was P.O. Box 94707.

Finance and Administrative Services. City Light also adopted a policy that payments should *not* be received personally by any City Light employee.[32] The policy's objective was to segregate the duties of cash handling from other operational and administrative duties related to constructing new services and providing related services.

During field work, we noted that construction service agreements contained instructions to mail the signed agreements to an Engineering Aide at City Light's North Service Center for projects handled by electric service representatives (ESR's) who serve as project managers. Given that a 20% deposit is required on the estimated cost before scheduling the work, customer payments may also be included with the mailed service agreements. We also learned through interviews that electrical service engineers who serve as project managers occasionally received customer payments.

Impact

The receipt of customer payments by City Light employees, other than City Light cashiers, increases the risk of the misappropriation of funds.

Recommendation 11

We recommend City Light management take the following actions to address this finding. These requirements should be documented in City Light policies and procedures.

a. For mail-in payments, enforce the current policy that requires customer payments to be directed to the appropriate post office box. In-person payments should be accepted only by Department of Finance and Administrative Services (FAS) cashiers or City Light cashiers.

b. Ensure that all City Light employees involved in providing new and related services and billing for such services are made aware of the required payment handling policies and procedures. This should include project engineers, field crews, metering crews, and project managers.

c. Update the construction service agreements to direct any mail-in payments to the required City Light post office lock box or to FAS/City Light cashiers when payments are made in person.

Recommendation 12: Segregate Incompatible Duties in Processing Refunds.

Finding

The employee in General Accounting who processes refund transactions, updates the Summit financial accounting system, and prepares check requests, also receives customer refund checks for mailing. The assigned duties are incompatible according to internal control standards.[33]

Impact

The assignment of incompatible duties creates the opportunity for refund check misappropriation.

Recommendation 12

City Light should amend its refund policy so that all refund checks are mailed from the City Treasury, as is currently done for other checks issued by City Light's Accounts Payable unit.

[32] Policies include "ID of Controls for Sundry Sales" (General Accounting) and "Seattle City Light Cash Receipts Processing Sundry Account Receivables" (General Accounting).

[33] The segregation of duties principal is discussed in the Committee of Sponsoring Organizations' internal control integrated framework as part of required control activities. Segregation of duties requires that cash handling be segregated from other duties such as recording transactions and providing authorization.

D. Monitoring and Oversight of Refunds

Recommendations 13 and 14 relate to monitoring activities to help ensure compliance with policies and procedures regarding conditional refunds to customers.

Recommendation 13: Monitor the Status of Customer Refunds for 3-Phase Line Extensions.

Finding

Electrical Service Engineers (ESE's) do not monitor the status of conditional refunds for residential and commercial three-phase line extensions. Some customers have power requirements that need to be served by 3-phase distribution instead of the more common single phase. For example, business enterprises may run equipment with heavy loads that require 3-phase power. If 3-phase lines are needed in an area currently serviced by only single phase, service line extensions must be installed to carry 3-phase power to the customer's site. While the customer is charged for the line extension, such charges are subject to a partial refund if other customers subsequently tie into the 3-phase system.

City Light policy[34] states that at the end of a three-year period, ESE's shall determine the amount to be refunded to each of the 3-phase service customers/developers/owners sharing the same line extension.

Impact

If City Light does not track all customers potentially eligible for refunds, some customers entitled to the refund may not receive it. In addition, City Light may fail to accrue for liabilities associated with unpaid refunds.

Recommendation 13

City Light management should require tracking and monitoring of the refunds for all 3-phase customers.

Recommendation 14: Review Refund Status of Contingent Transformer Charges.

Finding

In November 2006, the City of Seattle passed an ordinance affecting any applicant that receives City Light's authorization for a new or enlarged service installation, the consumption of which would be billed under any of City Light's Large General Service or High Demand General Service rate schedules. The ordinance requires these applicants to obtain a letter of credit or post a deposit. The deposit required is equivalent to the material and labor costs of the transformers and associated equipment necessary for a customer's service connection before City Light approves connection to the service. This deposit is refundable to the customer if certain usage requirements, as defined by the ordinance, are met. City Light codified the 2006 ordinance in their department policies and procedures (DPP 500 P III-426). The ordinance requires an evaluation of each qualified customer to determine if the customer's usage requirements over time had been met. If the required usage had been met, then the customer's deposit for transformer and related costs would be refunded or the letter of credit canceled. If the required usage had *not* been met, then the customer would be billed and either the amount of the deposit would be retained as payment or the letter of credit would be used as security for the customer's forthcoming payment. The ordinance was repealed in 2014 in favor of a new amp fee.

[34] The refunds are required under DPP 500 P III-401, Schedule 115.

We attempted to test compliance with this ordinance; however, City Light was unable to provide us with a list of all customers subject to the ordinance. It appears that no tracking and monitoring mechanism was established for this purpose.

Impact

- City Light may not have collected the appropriate deposits or letters of credit as a guarantee for the payment of transformer costs as required by the ordinance.
- In cases in which the required demand *has not* been met, City Light may not have billed the customer for the transformer and associated equipment charges.
- In cases in which the required demand *has* been met, City Light may not have refunded cash deposits collected from customers or canceled letters of credit that were posted in lieu of cash deposits.

Recommendation 14

City Light should identify all new or enlarged service installations that were subject to this ordinance and bring any such installations into compliance as necessary by either refunding customer deposits, canceling letters of credit, or billing customers as appropriate.

E. Control Environment

Recommendations 15 through 18 relate to the overall control environment in accordance with COSO's integrated internal controls framework.[35] These are high level controls that have an effect on the day to day processes involved in the billing and revenue collection process.

Recommendation 15: Perform Periodic Risk Assessments and Monitor Key Internal Controls.

Finding

During field work, we noted that none of the business unit managers we interviewed had performed risk assessments to identify risks associated with billing and revenue collection activities. We obtained a risk assessment plan from City Light's Internal Audit unit; however, we were unable to verify when a risk assessment will specifically be performed for activities involving billable services and the collection of customer payments.

Risk assessments are activities that an organization engages in to identify risks involved in achieving its objectives. The risk assessment process is recognized by COSO as part of the integrated control framework. Once relevant risks are identified, the organization should determine controls that are necessary to manage the risks. Management should monitor controls to help ensure they are effective.

Impact

If risk assessments are not performed, billing and revenue collection objectives may not be fully met. The lack of internal controls to address key risks leads to errors and creates opportunities for fraud.

Recommendation 15

[35] COSO stands for the Committee of Sponsoring Organizations of the Treadway Commission. COSO is a joint initiative of five private sector organizations established in the United States that are dedicated to providing thought leadership to executive management and governance entities on critical aspects of organizational governance, business ethics, internal control, enterprise risk management, fraud, and financial reporting.

City Light management should conduct periodic risk assessments in connection with billing and collection activities to identify relevant risks to be controlled. Management should then determine if controls are already in place to mitigate identified risks or if new controls need to be designed and implemented. All key controls should be monitored periodically for effectiveness. The risk assessment process should be collaborative across the affected business units to ensure all key risks are identified and addressed and to eliminate any duplication of internal control activities. All control activities should be documented and approved by management.

Recommendation 16: Provide Regular Communication and Support for the City's Whistleblower Program.

Finding

City Light developed a document known as "Workplace Expectations" that is provided to all employees during new employee orientation. It encourages readers to become familiar with the City's Code of Ethics and policies regarding ethical standards, including conflicts of interest. The document outlines expectations for employees, including supervisors and managers. City Light also uses a 3rd party vendor to run a hotline known as "City Light Listens" where employees can report misconduct, discrimination, compliance issues, ethical concerns, etc. Posters titled "Not in Our House" are posted at various locations throughout City Light to encourage reporting of wrong doing.

In addition, the City of Seattle administers a citywide whistleblower program through the Seattle Ethics and Elections Commission (SEEC) for reporting violations of ethics, fraud, and abuse. The program has anti-retaliation and anonymity provisions that protect an employee from losing his or her job as a result of reporting violations. Whistleblower training and monitoring is administered by the SEEC and the Seattle Department of Human Resources. All City employees are required to take the training, including executive management. Regular communication and support of the whistleblower program by management helps create a positive corporate culture to help ensure the effectiveness of the program as a control to detect fraud related to billing and revenue collection activities. However, City Light does not regularly communicate the details of the City of Seattle's whistleblower program or its support of the program to its employees.

Impact

According to the Association of Certified Fraud Examiners (ACFE), organizations with whistleblower hotlines are much more likely to catch fraud by a tip, which is the most effective way to detect fraud.[36] The lack of communication and reinforcement of the program is likely to result in fewer tips being reported to the hotline.

Recommendation 16

City Light management should implement a plan to regularly communicate to all of its employees the details of the whistleblower program and encourage its use. City Light should post information about the program in kitchens, lunchrooms, and other conspicuous places where employees gather. Managers should periodically discuss the program at staff meetings. City Light should also consider adopting a City Light Code of Conduct that encourages use of the program.

[36] "Report to the Nations on Occupational Fraud and Abuse – 2016 Global Fraud Study" published by the Association of Certified Fraud Examiners.

Recommendation 17: Enforce Requirement to Perform Annual Reviews and Updates of Department Operating Procedures.

Finding

The City Light business units involved in the process of constructing and billing for connections and other services do not have sufficiently detailed and updated operating instructions. Operating instructions are the detailed business unit's policies and procedures, and they should include activities affecting billing and revenue collection.

City Light's department policies and procedures (DPP 500 P III-417) require that department operating instructions be developed by select business units to reflect current operating procedures. The business units specified in the DPP include:

- Finance (including Cost Accounting and General Accounting) for handling customer billing, payments, and related internal procedures (Section 6.1.8),
- Distribution and Network Engineering for preparing cost estimates for time and material jobs and related internal procedures (Section 6.2.8),
- Energy Delivery Operations to accurately account for labor and materials charged to jobs and related internal procedures (Section 6.3.4), and
- Technical Metering to accurately account for labor and materials charged to jobs and related internal procedures.

The operating instructions are required to be revised when changes in operating procedures occur, by January of each year.

Impact

The absence of well-defined department operating instructions could result in inconsistent practices in the business units noted above, making it difficult to expect that internal control activities designed for the purpose of accurate, complete, and timely billing and revenue collection practices will be carried out as intended.

Recommendation 17

City Light management should enforce the DPP requirements to develop department operating procedures and update them as necessary in January of each year.

Recommendation 18: Improve Controls Over WAMS Work Orders and Service Requests to Ensure All Records Are Accounted For.

Finding

Data for our testing in this audit was, in part, provided by City Light's Work and Asset Management System (WAMS), which was implemented in July 2011. In our review of the downloaded data, we noted that several service requests and work order numbers, which are generated in numerical sequence, were missing. According to City Light's Internal Audit unit, City Light does not track or account for missing numbers for either service requests or work orders.

There were a total of 365 service request numbers and 106 work order numbers missing from 2011 through 2014.[37] City Light informed us that WAMS application rules are in place to prevent either service request or work order numbers from being deleted by system users, and that only WAMS administrators have this privilege. We were told that records could have been deleted by WAMS administrators for correction purposes, or there may have been data conversion issues when WAMS was implemented. Deleted records could have also been the result of system "glitches."

Impact

Since WAMS contains customer and project data, both financial and non-financial, deleted service requests and work orders could result in delayed or missed customer billings. For example, service requests are used in an automated system to inform General Accounting as to when a project is ready to bill.

Recommendation 18

We recommend City Light management take the following actions to address this finding. These requirements should be documented in City Light policies and procedures.

a. Implement policies that prevent any personnel from deleting WAMS service requests or work orders, including system administrators. Work orders and service requests should be canceled or voided rather than deleted, with reasons for the cancelation or void documented.

b. Assign responsibility to the appropriate business unit to perform a periodic review of sequential numbers for both work orders and service requests to ensure that all WAMS service requests and work orders are accounted for. Any missing numbers should be investigated.

III. OBJECTIVES, SCOPE, AND METHODOLOGY

Our audit objectives for the billable services audit were to:

1. Determine whether internal controls over the billing and revenue collection process were designed properly and operating effectively, including controls to help ensure the accuracy, completeness and timeliness of billing and to ensure that all funds collected are deposited into the City Treasury.
2. Identify control weaknesses in the billing and revenue collection process and make recommendations for strengthening controls.
3. Determine through sampling of billing transactions whether the customer was billed accurately, completely, and timely, and whether all revenues were collected timely and appropriately deposited.

Our audit scope included the review of internal controls surrounding billing and revenue collection activities for new, enlarged, and converted service connections and other related services for City Light work orders created between July 1, 2011, the date the Work and Asset Management System was implemented, and December 31, 2014.

We reviewed the operational cycle for installing new and related services, including the customer application process and initial payment, engineering design, scheduling, field operations, and meter installations. We also reviewed the estimated and final billing process, including billing collection

[37] This does not include numbers out of sequence as a result of starting a new calendar year. The system is programmed to start a new sequential numbering series each year.

activities. We interviewed management and other personnel from several City Light business units, including Customer Care, Energy Delivery Engineering, Energy Delivery Operations, Technical Metering, Cost Accounting, and General Accounting. We reviewed policies and procedures, process flow documentation, training documentation, customer service agreements, and other relevant documents.

We tested selected internal controls identified in the time and materials billing process and conducted testing of a sample of time and materials projects for accurate, complete, and timely billing and revenue collection. We selected our test sample judgmentally from our population of downloaded Summit invoices. We chose a judgmental sample because City Light did not provide us with the complete population of time and material invoices for the time period in our scope. Due to this circumstance, we chose to test 100 of the 103 time and material projects that we could identify from our analysis of Summit data. Our sample may not be representative of all City Light time and material projects between July 2011 and December 2014. Nonetheless, our testing (a) verified control weaknesses that impair City Light's ability to ensure accurate, complete, and timely billing and collection for service connections and (b) revealed billing variances that highlight the impact of these control weaknesses.

During the audit, we encountered several delays that included obtaining timely access to City Light's work management system for purposes of testing, obtaining Summit data downloads, and in many instances, arranging meetings with City Light personnel for interviews and process flow reviews. In addition, we encountered delays in obtaining City Light's responses to our test results. We recognize that City Light personnel involved with billable services work were contending with a heavy workload due to Seattle's high volume of construction activity and limited resources. Due to the complexity of analyzing work order and invoice data, our office also required an extended period of time to develop test samples. We look forward to working with City Light during future audits to minimize such delays.

Compliance with Government Auditing Standards

We conducted this performance audit 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 that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

APPENDIX A

Seattle City Light Department Response

Introduction

The City Auditor's findings and recommendations in this specific area should be understood in the context of challenges facing City Light from the enormous growth in delivering service connections to new customers and resource constraints that affect City Light's efforts to accommodate this increased demand.

The City Auditor's testing focused on an important sub-set of service connections; the complicated billings for actual time & material costs of medium and large connections. As shown within exhibit 1 page 5, this is a small portion (100-200 annually) of the total quantity of service connections invoiced that increased from 3,000 annually to nearly 6,000 annually from 2011 to 2015.

In addition to a nearly 100% increase in service connections billed, other billing work not included in the auditor's exhibit for damage recovery, work charged to communication customers, property rentals, and other more than doubled to 4,700 invoices annually. This work combined with service connections is collectively referred to as "Sundry billings". The sum total of Sundry billing volume more than doubled over five years to 10,700 invoices in 2015 *with no increase* in permanent accounting staff over the same period. The work demands on Engineers, including their detailed participation in this billing process, has also increased enormously and their staff size has similarly been constrained.

Given these sizeable challenges of greatly increased billing activity and limitations on staff size we are viewing the City Auditor's recommendations with a grounded perspective of how material the noted findings are, and a practical assessment of what additional steps can be incorporated compared to the incremental benefit they would provide.

Completeness and Accuracy of Billing

1. Ensure WAMS Work Order Tasks are Updated to "Finished" Before the Engineer's Approval of the Final Bill Review.

We agree with the main point of the recommendation that work order task status be verified as finished prior to issuing the invoice. It will be re-affirmed as part of standard procedure.

City Light has investigated the exceptions noted by the City Auditor and determined that the invoices were prepared for a valid reason, usually to deliver in a reasonable amount of time after completion of the work, and that resulting charges not billed were immaterial (1a).

1a) For 13 Work Orders the total under-billed was $14,087 or 0.454% on $3.1million of costs.

2. Reconcile Work Order Tasks Recorded in the WAMS Work Order, the Summit Work Order, and the Final Bill Review Document.

We agree with the recommendation that the tasks used on each work order should be verified as present in WAMS, Summit, and the final bill review document. It will be reaffirmed as part of standard procedure. We investigated the exceptions noted by the City Auditor and agree that through oversight approximately $8,000 was under-billed.

The City Auditor's points (b,c) about potentially under-capitalizing $22,000 of completed costs relate to financial statement presentation and are not a billing issue.

3. *Reconcile all Billable and Non-Billable Costs Before Final Billing; Lower the Threshold for Booking Journal Entries to Summit, Close all work orders after final bill review preparation, Back bill as Necessary.*

The City Auditor described the very involved multiple step process that results in the final billing or refund. It does require careful documentation, the coordination of information from different systems, and thorough review by engineers and accountants.

The City Auditor noted a large number of projects had adjustments, usually to distinguish non-billable "system work" from billable connection charges. This is a normal and expected result of the process. We investigated 11 projects mentioned by the City Auditor in which additional costs were recorded after the final billing was issued. We determined the costs not billed were immaterial 3a).

We agree that City Auditor's recommendations (a.b.d.) could increase the reliability of processes and improve the accuracy of final billing. We will adopt them into our procedures.

The recommendations (c) about "back bill as necessary" will have to be evaluated and discussed with City Law and we will invite the City Auditor to participate in those discussions.

The City Auditor's prospective recommendation (e) is to change billing policies and to reserve the right to revise and reissue "final billings" even after receipt of final payment by customers. We will invite the City Auditor to participate in conversations with City Law in this matter which has significant implications to customers who rely upon Seattle City Light to provide finality on connection charges.

3a) For 11 Work Orders the total under-billed was $14,111 or 0.089% on $1.6 million of costs

4. Require Authorization and Documentation of Engineer Adjustments to Billable Charges

We are in agreement that billing adjustments should be clearly documented and also be evidenced by an appropriate level of authorization. The specific details of approvals by whom and at what level may differ from the recommendations from the City Auditor.

There are two projects identified by the City Auditor, each with unique circumstances, where our information for sizeable billing adjustments was not properly documented;

At a large commercial project, City Light was performing system and connection work. Construction contractors for the Customer damaged City Light equipment requiring repairs and additional cost. Our files include communication with the Customer notifying them of our intent to backcharge and their acceptance of responsibility. However, within the total costs recorded in the job our documentation does not clearly distinguish these additional costs to repair from the planned system and connection work. Thus, the City Auditor questioned why an additional $117,000 was billed

For another mixed-use commercial project, a Customer had concerns about significant system work to be performed adjacent to their project at the same time as their billable service connection work. Towards alleviating their concerns a letter was delivered prior to construction that intended to clarify City Light's portion of the costs. Later, during the preparation of the final billing the letter was relied upon and interpreted to effectively cap the Customer's costs. We determined that the original letter was ambiguous about how final costs were to be allocated and that a mis-interpretation as a cost cap was understandable. Based on the available file information the City Auditor estimated the un-billed costs due to un-intentionally treating this job as a fixed sum could be as much as $136,000.

We estimate the potential amount of unbilled cost was approximately $43,000. Our lower estimate is based a review of this project's increased costs in categories that are customarily billed, and excluding

overruns in categories that cover SCL's system work. Significantly more effort would have to go into documenting our estimate. However, before pursuing this further we will discuss with City Legal about the collectability of an additional final billing. This may be difficult given that the Customer may have similarly understood the letter to establish a cost cap which they already paid.

5. Enforce Requirement to Perform Variance Analysis

We agree with the main points of this recommendation as it is a best practice and is already included in City Light's own existing policies. We will take steps to increase the compliance with this existing policy, including consideration of the specific steps recommended by the City Auditor's or similar that achieve the same result.

6. Require Documented Engineering and Supervisory Reviews for All Time and Materials Billing

We agree with the intent of this recommendation that clear evidence of dual reviews by engineering should be present. We will take steps to increase the compliance with this existing policy, including consideration of the specific steps recommended by the City Auditor's or similar that achieve the same result.

Timeliness of Billing and Revenue Collection

7. Improve Timeliness of Final Billing

Elsewhere in this report are recommendations that the final billing processes should be thorough and that we wait to ensure full and accurate billing. "*Accounting needs to allow an appropriate amount of time to lapse to ensure that all project costs are captured in the Summit work order before the final bill review is prepared*" see Recommendation #3, footnote 17.

Given the challenges of waiting to bill for all costs and the time required to perform all recommended procedures, we feel that 120 days following completion of work is a reasonable period of time to issue the final billings. This may be longer for complicated projects.

The City Auditor's testing shows that 57% *were issued* within 120 days (#7-d) demonstrating that a sizeable portion of billings are being completed within a reasonable amount of time. We will work to improve and raise this percentage. The testing showed some outliers that were far beyond an acceptable time. We will take steps to avoid repeating these.

8. Improve the Effectiveness of Billing Tracking Reports

We are in agreement with the City Auditor's recommendations.

The Auditor reviewed an in-house tool that was developed by City Light Accounting due to a lack of functionality in the City's PeopleSoft system. The City has announced that as part of the Summit Re-implementation this identified deficiency will be remedied. The "Action List" is a work-around tool used to monitor 200-300 active time & material jobs that must navigate several processes. Given its nature, there will be gaps or omissions but City Light believes this tool and process are effective and being capably used.

9. Implement controls over timely collection of Final Bill balances due.

We agree with the City Auditor's recommendation to enforce current procedures for timely follow-up of past due balances. We believe that existing procedures are reasonably well designed, but as reported by the City Auditor have not been well documented as being followed. The unpaid balances include the

results from procedures involving the City Light ESE's and ESR's, and if unsuccessful they are turned over to City Law who reports quarterly on their efforts and progress to collect these amounts. Ongoing collection of the sizeable amount significantly past due is being handled by City Law.

10. Implement Controls to ensure Compliance with Customer Payment Requirements.

City Light believes existing requirements for full payment of the estimated cost of connection work prior to energization serve as a very strong control. The Auditor tested this control for 100 jobs and confirmed that for 96 the control operated as designed.

One exception was requested work performed for City of Seattle Public Utilities. Because City Light classified this work for T&M billing but did not collect full payment (from the City) prior to energization, the Auditor has noted this for exception.

Three exceptions were noted where full payment for the estimate was not received before energization. This is contrary to policy and City Light will discuss these occurrences with key staff towards ensuring compliance with this requirement.

Cash Handling

11. Enforce Compliance with Customer Payment Handling Policies

We appreciate that the City Auditor has noted the extensive efforts and improved controls that City Light has put into place in this area. We are in agreement with the recommendations, which may be modernized to allow electronic forms of payment directly to City Treasury. We will continue to educate staff towards promoting compliance.

Through the on-going testing of cashiering procedures by City Light's internal audit team we are of the opinion that the controls are functioning as intended.

12. Segregate Incompatible Duties in Processing Refunds

The process observed by the auditor was designed so that a complete package of detailed information about the actual final costs was being provided to the customer, along with either an invoice or refund check. Although the likelihood is small this staff could bypass several other controls in the process and misdirect or misappropriate a refund payment, City Light has adopted this recommendation and will have the refund checks mailed by different staff.

Monitoring and Oversight of Refunds

13. Monitor the Status of Customer Refunds for 3-Phase Line Extensions

The City Auditor points out that subsequent connections to 3-Phase line extensions installed and charged to an original customer within the previous three years, should be monitored for conditional and partial refunds to an original customer for up to three years. To clarify about the intent of this policy; subsequent connectors would be billed a pro-rata allocation and original connector would be refunded the same with no net financial impact to City Light.

We agree with the general recommendation and City Light Electrical Service Engineering will incorporate into procedures steps to identify when subsequent connectors to a 3-phase line extended within the previous three years are to be billed for a pro-rata share of the original connectors' charges, and an accompanying refund is to be delivered to the original connector.

14. Review Refund Status of Contingent Transformer Charges

City Light's internal audit team is reviewing the implementation of the new amp fee and has been asked to look into prior work completed under the previous deposit policy towards ensuring that policies and procedures are being complied with and that no customer connections were not properly processed.

Control Environment

15. Perform Periodic Risk Assessments and Monitor Key Internal Controls

City Light is including billable service activities in its program to document internal controls and to certify their ongoing application. The City Auditor's extensive work in this area does provide City Light Management with feedback about the effectiveness of existing controls in connection with billing and collection activities. City Light's internal audit function coordinates a utility-wide risk assessment program and will include this area in their ongoing work.

16. Provide Regular Communication and Support for the City's Whistleblower Program

We appreciate that the City Auditor has noted the considerable efforts and evidence of City Light's commitment to promoting honest behavior and adherence to ethical standards. Per the recommendation, we will look for effective ways to increase awareness of the City's Whistleblower program.

17. Enforce Requirement to Perform Annual Reviews and Updates of Department Operating Procedures

We agree that operating procedures should be well-documented and well understood by staff.

City Light management will work to adhere to this best practice and in conformance with existing DPP requirements

18. Improve Controls Over WAMS Work Orders and Service Requests to Ensure All Records Are Accounted For

City Light's internal audit team, which includes IT audit experts, will review these recommendations with Seattle IT department and implement as is appropriate.

APPENDIX B

Narrative Process Flow for New Service Connections for Seattle City Light – Time and Materials Based Projects

(1) Customer submits an application for new, altered, or conversion service that includes detailed drawings and other documentation requested in the application.

(2) The application and other documents submitted by the customer are reviewed for their completeness by project managers and/or engineering assistants.

(3) A service order is created in WAMS that captures basic customer information such as the site address, the nature of the requested work, payment and invoice information.

(4) The customer application and attachments are forwarded to the project engineer. The project engineer and project manager meet with the customer to review specific requirements. The project engineer provides a rough cost estimate of the project. If the customer agrees to the estimated charges, the engineer creates detailed engineering plans for the project. A cost estimate for materials, equipment, labor, third party costs, and overheads for the project is prepared based on the project plans.

(5) The project manager, with engineering's guidance, prepares a customer construction agreement that defines the scope of the project, the customer's responsibilities for site preparation, and the estimated cost and payment terms.

(6) The customer signs and returns an attachment included in the customer construction agreement that specifies the cost and payment terms. The cost represents an estimate of billable time and materials costs. An invoice is prepared by General Accounting and sent to the customer for the estimated cost. Payment in full of the estimated cost is due before the actual connection to the service or completion of the project for other types of services.

(7) A WAMS work order is created to record the various project work tasks and their dates of completion and for scheduling the work. The work order is also used to capture some of the project costs and record notes and other project information. A linking work order is created in Summit which will be used to capture all costs of the project.

(8) Various business units within the organization coordinate the work and billing activities. The business units are Customer Care that includes project management (ESEs/ESRs), Technical Metering Services, Accounting (Cost Accounting and General Accounting), Energy Delivery Engineering (engineering), and Energy Delivery Operations (field operations). Labor, materials, overheads, and 3rd party costs charged to the project are ultimately recorded in one or more Summit work orders linked to the project.

(9) At the conclusion of the project, inspections by City Light and other government permitting agencies occur when the project is ready for service connection. The engineer receives the final as-built construction plans for sign-off and forwards the plans to City Light records for recording and filing.

(10) A final bill review report, showing billable and non-billable project costs as recorded in Summit, is prepared by accounting personnel and sent to engineering personnel for review and approval. The engineer compares the costs shown on the report to the schedule of estimated costs. Further adjustments of billable and non-billable costs may be made by engineering personnel. The engineer approves the final bill review report and forwards it to the Engineering Supervisor for review and approval, after which it is forwarded to accounting personnel to generate a draft final bill invoice. The draft invoice will either show a balance due for additional charges due or a credit balance if actual charges are less than estimated.

(11) A second billing technician in General Accounting reviews the draft invoice for accuracy, including customer information and verification of prior payments received. The final bill invoice is then prepared and mailed to the customer.

APPENDIX C

Office of City Auditor Mission Statement

Our Mission:

To help the City of Seattle achieve honest, efficient management and full accountability throughout City government. We serve the public interest by providing the City Council, Mayor and City department heads with accurate information, unbiased analysis, and objective recommendations on how best to use public resources in support of the well-being of Seattle residents.

Background:

Seattle voters established our office by a 1991 amendment to the City Charter. The office is an independent department within the legislative branch of City government. The City Auditor reports to the City Council, and has a four-year term to ensure her/his independence in deciding what work the office should perform and reporting the results of this work. The Office of City Auditor conducts performance audits and non-audit projects covering City of Seattle programs, departments, grantees, and contracts. The City Auditor's goal is to ensure that the City of Seattle is run as effectively, efficiently, and equitably as possible in compliance with applicable laws and regulations.

How We Ensure Quality:

The office's work is performed in accordance with the Government Auditing Standards issued by the Comptroller General of the United States. These standards provide guidelines for audit planning, fieldwork, quality control systems, staff training, and reporting of results. In addition, the standards require that external auditors periodically review our office's policies, procedures, and activities to ensure that we adhere to these professional standards.