

REPORT FROM

OFFICE OF PUBLIC ACCOUNTABILITY

Date: July 1, 2015 Council File 14-0161-S2

To: The Honorable Members of the City Council
The Honorable Eric Garcetti, Mayor
The Board of Water & Power Commissioners
Marcie L. Edwards, General Manager, Department of Water & Power

From: Frederick H. Pickel, Ph.D., Executive Director/Ratepayer Advocate
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Subject: Learning from the Department of Water & Power's Billing System
Challenges

Cc:
Sharon Tso, Chief Legislative Analyst
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The Honorable Ron Galperin

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I. INTRODUCTION

A. Executive Summary

On March 17, 2015, the City Council introduced a Motion (Fuentes - O'Farrell; CF# 14-0161-S2) requesting the Office of Public Accountability (OPA)/Ratepayer Advocate to report on its assessment of the Department of Water and Power's (DWP) Customer Information System (CIS) challenges. The motion also requested the OPA's analysis of the State Auditor's report on the DWP's CIS challenges. This report responds to the Motion's request.

The cause of the unacceptable outcome from the new billing system (the Project, or CIS Project) is the topic of a pending lawsuit. The response of the DWP to the launch and stabilization of this new system involved delayed procurement and hiring. Rapid change was called for, and will continue to be needed in the DWP's immediate future in order to address deferred technology and industry change.

The full price of delay can be measured in annual budget variance reports and by an ongoing benchmarking effort. Phase I of three planned phases of benchmarking has identified many areas of the DWP's performance that are in good or acceptable condition. However, some areas have lagged developments in the industry over the last decade or more. Others reflect unique challenges or constraints needing sustained attention to correct. Delays in deploying internal and external resources are systemic. Due to vendor performance on the billing system, this systemic condition had severe negative impacts for individual ratepayers, and the employees on the front lines facing the DWP customers.¹

Many of the established procedures were not flexible enough for the surge of demands the Project generated after it launched. The chief delays were:

- Delay in procuring additional resources for short-term bursts of demand in post-launch activities;
- Delay in establishing the long-term plans and budgets Joint Services Division² should be proposing, and seeking the level of control needed for its execution responsibilities.

While DWP management has made significant progress since the new system launched in September of 2013, the root causes remain in place and have extensive impact beyond the parameters of customer service or information systems. Utilities must be responsive to a wide variety of circumstances that cannot be eliminated by perfect planning and perfect forecasting

¹ OPA expresses no opinion herein about what may be determined in the future to be lost revenue caused by this event.

² "Joint" or Shared Services include Customer Service, Information Technology, Legal, Human Resources, Fleet, Facilities, Security, Human Resources, Procurement, and Financial Services. In this report, OPA uses Joint Services Division, the vernacular name for "Administrative Services Division" and intends all organizational units not in Power or Water Divisions, regardless of how funded.

of all potential problems. It is unrealistic and imprudent to think otherwise. The DWP has a deep and abiding problem with the ability to deploy resources. The responsibility for this is dispersed between civil service rules, procurement rules, and work rules that are not within the Board's control. In addition, the DWP has high turnover in executive management and a culture that is unlikely to self-correct, all made worse by high retirement rates and churn in positions.

The DWP's Board of Commissioners (Board) directed DWP staff on May 19, 2015 to prepare a rate proposal for review. The OPA supports regular periodic rate reviews for DWP's fiscal stability and transparency of rates. The recommendations of this report fall into short, medium, and long term activities that are not intended to constitute procedural pre-conditions for rate reviews.

B. Key Recommendations

In accordance with its enabling Ordinance, OPA's recommendations are directed to the DWP Board, the Mayor, and the City Council. These recommendations are provided in greater detail in the concluding Recommendations section of this report. The following list is a summary.

- In concert with the next two phases of the DWP's benchmarking efforts, establish a Joint Services Division management structure that has an adequate span of control over its responsibilities.
- Within the next year, strengthen the Program Management Office (PMO) within the Joint Services Division. Render the PMO responsible for not only budget and schedule, but identifying any division's personnel adjustments needed for IT project support. Provide the PMO with both directive authority and control, through compliance with its instructions and the PMO's authority to stop-work.
- Render transparent to the public the shared labor-management responsibility to quickly execute agreed contracting procedures, when and if negative consequences directly and immediately affect the level of customer service.
- Within the next three months, contract for a backup call center with objective parameters for: a) triggering its use, and (b) increasing permanent staffing when that use grows beyond mere backup reliance. The DWP has been unable for many years to accomplish this, and has competitively selected a short-term contractor. After experience is gained with managing overflow to a wait time standard, permanent staffing levels meeting these standards in two distinct call centers can be planned and proceed.
- Adopt in the short term a structure of delegation within the existing institutional governance framework that will allow the DWP to contract as well as hire in 30 days under dire and urgent circumstances. Further, set as a medium term goal a review and

adjustment to that structure that will allow the DWP under normal circumstances to hire within six months and procure most of its service and materials needs within three months. The DWP cannot currently perform within these parameters, and they are essential to its reliability obligations.

C. Key Findings

The concluding section of this report contains a more comprehensive list of findings, of which the following is a summary.

- Of the \$193 million reported spent as of February 2015 on the CIS Project initiated in 2009, some \$76 million was spent on **professional services** through fiscal year end 2014. In magnitude, this professional services expenditure is reasonable for a large scale utility project this deferred and complex. For comparison, the inflation adjusted (2009\$) addition of plant to the DWP's power and water assets was just under \$6 billion dollars from fiscal year end 2009 through 2014. (As of February 2015, the CIS Project cumulative professional services costs were \$89.6M, and the same conclusion applies.)
- The Project used \$33 million of regular and overtime DWP **wages** through fiscal year end 2014. In magnitude, at least this amount is reasonable to support a large scale utility project this deferred and complex. For comparison, the total of the DWP labor wages and benefits (in 2009\$) from fiscal year end 2009 to 2014 were just under \$11 billion.
- In no year during its development did the total of the DWP wages *and* professional services for the Project exceed 2% of the DWP's wages or 1% of its total labor compensation (i.e., wages plus benefits). This measure expresses the time commitment involved with performing the tasks of this broad endeavor.
- A project of this type requires a mix of inside and outside resources that shifts over its life cycle. The DWP's PMO function was under-supported for addressing conflicts that arose within the firm, between the firm and vendors, or between the vendors. The DWP as a whole was pursuing "productivity" by job attrition. Hence the Project's lifecycle took place in a context of operating on a shoe-string that was lengthened gradually, in an environment chilled by the business cycle's slow recovery. This practice would have been less eventful if the DWP had any capacity to rapidly increase internal or external resources, or knew in advance that vendor non-performance would make it essential to do so.
- The Joint Service Division lacked sufficiently stable resources for the transition from development to deployment. For example, it could not fill vacancies left by those staffing the Project. It could not keep Project code testing staff once it launched by

extending its letter of agreement with the union. The Joint Services Division today cannot supplement the quality of training, supplement missing subject matter expertise, procure a backup call center, clear one-time collection backlogs on long-closed accounts, or outsource manual bill error correction, even if staff is overwhelmed or unable to clear backlogs in a reasonable timeframe. Other utilities can and do respond appropriately to a wide variety of unplanned, urgent needs. Due to resource constraints, the DWP cannot.

- There was inadequate delivery of contracted-for post-launch support. The post-launch period has had the same management, vendor, and key staff turnover as pre-launch. Moving Customer Service to the Power Division, while useful in the short run to accomplish the progress to date, has not been able to address longer term needs the customer billing system will have on an ongoing basis. To this day the PMO lacks adequate control.
- The DWP has difficulty coordinating and executing between centralized and decentralized project components. The current General Manager is making improvements that will be aided by a more capable PMO and chain of reporting.
- Some employees have informed OPA that the single biggest factor preventing the DWP from moving towards industry standards in customer service is the union relationship. While debatable, OPA is of the opinion that both labor and management share the responsibility for this stated perception. Due to high turnover of the General Manager in the last 15 years, it is presumed by all involved that all the current executive management is temporary. A balance between management and labor is correspondingly impaired.
- The amount of revenue that will be lost from this Project's adverse deployment will not be known for some time, and may depend upon additional *audit quality data* not now readily available. The net allowance for uncollectable bills for power and water were estimated at \$123 million in December 2014, which is approximately \$93 million higher than in prior years. These numbers are taken from the DWP's audited financial statements, and retail revenue for the same fiscal year was \$4.46 billion.

II. PRIOR TO LAUNCH: THE CONTEXT OF MANAGERIAL DECISION

The DWP management team met on August 22, 2013, to decide whether this Project would be ready to launch over Labor Day weekend, 2013. Much of the history concerning performance of the new billing system is now a matter of public record in City of Los Angeles vs.

Pricewaterhouse Coopers, LLP (PWC). (See, Los Angeles Superior Court Case No. BC574690).³ Facts alleged therein will not be reiterated here. Rather, this report provides more context than the State Audit or litigation.

Approximately a month earlier, about half of the City Councilmembers, the Mayor, the City Attorney and the Controller were newly in office as of July 1, 2013.

A multi-month effort to negotiate a new IBEW 18 Memorandum of Understanding (MOU) was concluding. This negotiation was the culmination of efforts that began with the 2009 Industrial Economic & Administrative Survey and the 2012 review of power rates, and concluded a year ahead of the prior MOU's termination date in order to capture cost savings.

Given the way the base rate increases approved in late 2012 were phased in, the increases actually occurred with less than a year's worth of space between them. Customers thus perceived what they thought were alarming year over year changes in their bills, one month before the new billing system launched. Customers using neighborhood councils or online gathering places had begun to express "rate shock" from base rate changes, combined with the impact of water and power quarterly adjustments for costs management does not control (e.g., fuel costs). Rate shock has reliably occurred in the utility industry, over many decades, at levels of rate impact over 5%.

III. AFTER LAUNCH: HIGHLIGHTS OF EVENTS

This section of highlights is not intended as a substitute of all relevant activities in connection with the Project. Extraordinary effort took place within the DWP by management and staff throughout this time. DWP has made substantial progress with stabilization since 2013.

July, August, September: 2013

Some of the staff involved in software testing during development disbanded at the September launch of the new system, having begun to migrate back to regular job duties in June. By its terms, the union's letter of agreement (LOA) ended upon launch of the Project for some Customer Service staff. This LOA was the basis by which affected staff worked on duties outside their regular job description.

October, November, December: 2013

OPA learned in October that the DWP had not yet established overflow or backup of critical call center functionality outside Los Angeles. Most large utilities after 9-11 took this step to secure business continuity.

The groundswell of ratepayer complaints in August due to higher bills turned into a roar in October 2013. The CIS Project's launch added to this situation many incorrectly estimated and

³ For a copy of the complaint, see www.kbla.com.

calculated bills to rate increases. The call center was rapidly overwhelmed. In addition, the OPA learned that PWC had failed to provide critical revenue and accounts receivable reporting capabilities that the DWP had contracted for.

The Board intervened to insist that “trouble” calls – outage reports for water or power – reached the DWP without a prolonged wait time, which had increased dramatically. The DWP sub-contracted for technical support to provide additional help with backlogged manual billing.

The OPA began monitoring revenues with alternative sources of data. OPA concurred with management before the Board that stabilization could be expected to take 18 to 24 months to be fully completed.

The City Council and DWP management discussed suspending customer service disconnections for non-payment in late November; to a meaningful degree the DWP did.⁴ In December the General Manager announced his resignation, scheduled for January 20, 2014.

The DWP’s efforts in support of emergency meter readers and call center representatives this quarter made significant progress as meter readers were added. Training was organizationally consolidated.

OPA continued to get calls and information from customers stating wait times of 90 minutes to 2 hours. OPA’s own efforts to corroborate call wait times found wait times not longer than 45 minutes. DWP made various efforts to fine tune problems with the automated call back feature and the voice recognition system.

January, February, March: 2014

Jim McDaniels was appointed Interim General Manager until a new General Manager could be selected and confirmed. The current General Manager Marcie Edwards was confirmed by the City Council on February 21, and started work in March.

Emergency hires for the call center were ready and trained during the first quarter. After the arrival of a new General Manager in March, the DWP reorganized its management of the stabilization process, and Customer Service was moved into the Power Division. The DWP worked toward a Civil Service Board exception to the length of employment by emergency hires, due to the long training time and slow speed of hiring permanent staff. Concurrently, the DWP worked to replenish expired civil service lists, and make longer range plans for training.

OPA continued to monitor power and water revenue closely.

⁴ City Council Motion (Englander – Martinez); CF# 13-1475-S4. Service disconnections are a normal part of collection for services rendered, and occur only after multiple steps to notify customers and obtain payment have failed.

The State of California expressed its intention to audit the DWP's launch, reportedly due to complaints from employees about the adverse working conditions it had created. This audit work was delayed by mutual agreement with the State so that stabilization efforts could have additional time and focused attention from senior management.

April, May, June: 2014

This quarter was the last in the DWP's fiscal year ending in June, 2014. Because the utility user's tax is a cash-based payment, unlike the accrual-based City transfer, the DWP made considerable effort to manually rework bills that had not yet issued by the end of the fiscal year, to significant effect.

OPA encouraged collections to begin with the oldest bills. The DWP management reported attempting this. When the school season ended, however, call volumes rose for start and stops of accounts, and this proved impractical. The DWP focused on the latest commercial accounts, and working through errors of reporting and collection with City departments, the County, and the school district. The first large wave of cancelled and rebilled estimates issued, also stimulating call volume from the customer confusion rebilling creates, and shock over higher "catch up" bills from erroneous prior estimates.

Gradually during this quarter, the Power Division altered how priorities were established in the stabilization effort.

OPA urged acceleration of plans for delivering two common service requests on-line: account starts and stops, and payment arrangements. Many customers reported to OPA uncertainty about negotiating with customer service, and clarity about payment plans was lacking. Management accelerated plans for online payment plans, which were launched in the next quarter.

July, August, September: 2014

A second wave of call volume was triggered in August by bills being cancelled and rebilled, as these types of bills are quite complex relative to a normal bill. In September, after additional and permanent customer service representatives finished training and were put into place, the DWP experienced the largest drop in call wait time since launch. These additional personnel were critical to controlling call wait time.

OPA's attention was spent on ensuring all reasonable actions had been taken to secure the system data from theft or abuse, due to a nation-wide Green Dot scam involving a particular commercial customer complaint it was working on. Due to the long call wait times, some customers, who were unaware of the scam, were misled to make untraceable payments to individuals impersonating the DWP personnel with exact balances of amounts due.

The DWP stopped sub-contracted supplemental billing support from its technical services contractor.

October, November, December: 2014

The DWP hired TMG Consulting, Inc. to assess the root causes of the difficulties with launching the new billing system. More management changes were announced. The DWP reported its top findings, emphasizing the Project's aggressive scope without adequate specification on its initiation.

Collection activity resumed in November, one year after it was suspended. Online payment arrangements were launched. Cancelled and rebilled services were now covering periods of a year, triggering a new but smaller wave of rebilling with high variations from original bills.

January, February, March: 2015

The City and DWP filed a complaint against PWC, the Project's system integrator. Additional factual information about the summer 2013 readiness and testing are likely to come forward as discovery in that case gets underway.

The State concluded its audit activity and issued its report on March 10, 2015, bringing to light additional facts and circumstances of the decision to proceed with launch in August 2013.

The PMO function, for the most part, continued under a "client facilitation" model. This model provides the lowest level of control of the three models or levels of control generally used and recognized for IT program management.

The emergency CSR hires were released, and additional permanent CSR hires completed training. A permanent and physical Training Academy space was completed and available.

Field inspectors and billers were hired a full 18 months after the urgent need for them arose. The DWP was able to gradually reinitiate residential collection activity, for the most part without driving up call wait times. The DWP resumed supplementing billers.

The DWP, focused by its benchmarking work on high losses, found that some meters were registering use without connection to a billable account. A labor-based work around on meter exchange data was instituted until better integration between field data and billing can be completed by the IT Department. Additional work on reducing losses was planned.

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IV. STATE AUDIT

The State Auditor's perspective makes an important contribution to public understanding of the Project, and is grounded in an experience of how government entities should and do work on large IT projects. The Project's impact on both ratepayers and employees merits this type of review. While some employees of the DWP believe that IBEW 18 requested the State Audit, OPA has reviewed this report without regard to how it originated.

The State Auditor's jurisdiction involves one other large power utility, approximately 30% the DWP's size by revenue and billing only for power: the Sacramento Municipal Utility District (SMUD). It is OPA's opinion that the State Auditor's effort is closer to an operational audit than a financial audit, and covers:

- the professional judgment of the risks involved August 22, 2013, when the General Manager, Ron Nichols, made a decision about the readiness to launch the new billing system, with the input of 15 members of the management team, the systems integrator vendor Pricewaterhouse Coopers (PWC), and the quality assurance vendor Five Point Partners;
- the Project costs;
- the potentially lost customer revenues.

As a preliminary matter, OPA has no objection to the State Auditor's recommendations. Those recommendations are to institute: a) a process for designating risky IT projects, b) a reporting standard for management on such projects, and c) a standing board committee to supervise such projects.

In OPA's estimation, these recommendations will likely fall short of the needed improvements. Therefore, while OPA has no objections to the State Auditor's recommendations, it suggests substantial refinements to it. OPA also finds the State Auditor's report is incomplete.

A. Management Decision

The State Auditor claims to evaluate what the former General Manager knew, should have known, and how the evidence for and against launching the Project was weighed. The appropriate standard of review for utility management is to review the decisions with only the information known to management at the time of the decision. The particular decision of interest was made in August 2013, concerning whether the system and staff were ready to implement the new billing systems. The nature of that decision was one of risk management. Knowing all that management knew at that time:

- (a) Were the remaining critical defects in the software that had been identified by the quality assurance vendor cured by the systems integrator?

(b) Was there enough time and staff to test that this was so, or implement feasible work-arounds, before the scheduled launch date?

(c) Was the staff ready to use the new system?

1. Root Cause & Exacerbating Complications

In OPA's opinion, one cause of the failed risk assessment in this Project stands above all the others in the pre-launch period: the misinformation about testing results and readiness from the systems integrator PWC.

To make matters worse, the DWP Office of Project Management (PMO)⁵ did not have adequate authority delegated to it. The PMO should be an office, not a person. The PMO lacked controls commensurate with its responsibilities to enforce software testing standards and procedures. Among other things, a mature PMO manages conflict between the systems integrator and the Quality Assurance (QA) vendor. The PMO must be able to direct project-dedicated resources as well as stop all project work, if necessary, to obtain compliance with instructions.

Customer Service staff that had supported some of the less critical test activities started to return to their regular assignments, starting in June 2013. The QA vendor had identified the need to reinforce testing protocol in its June report, but this became increasingly difficult, for multiple reasons. In July 2013, estimates of the amount of time needed to fully test whether PWC had indeed corrected all "severity level 1" defects took the Project past the Labor Day target date. At that point, the Assistant Director of IT was materially involved in PMO functions, and believed more time would be needed. Evaluation and planning assessments were considered that would use an alternative launch date of the next three day weekend, in October.

As August began, management was expecting a new Board, unfamiliar with the lifecycle of the Project. It has been advised by the current Board that further delays and contract amendments would be viewed with skepticism. They were also aware of rising staff fatigue levels, as the push to attain a start-worthy condition persisted and made unsustainable demands for time.⁶ Management also had to consider the degree to which PWC would sustain or improve its performance with more time.

Several other complications impacted the effect of management's decision *prior* to August 22, 2013. First, the QA vendor (Five Point Partner) reports reviewed by OPA tended to be

⁵ For this project, the DWP used "project" as the term in PMO. When a PMO is a "program" office, there is typically a very large project with many contractors and interfaces, or the PMO is managing multiple projects on various time tracks that are distinctive but inter-related.

⁶ For example, the CIS Remodel team of 28 persons had worked in Fiscal Year End (FYE) 2013 some 10,878 hours of overtime to support the launch, representing 21% of their 50,892 regular hours. In FYE 2014 while stabilization was occurring, this team's Project time contracted by 40,000 hours as they returned to regular duties.

somewhat less than concrete about the amount of time needed to address particular actions (e.g., high priority defects) that PWC claimed it was addressing in the summer of 2013. Specific schedules, actions particular individuals should take, or impediments were not described. Five Point Partners credibility wore thinner as time passed, and the PMO gained better experience with these individuals' limitations.

Second, the quality of staff training was impacted by a lack of software functionality. In a contest of opinion between CSR staff's readiness assessment and PWC's, management was persuaded by PWC's opinion that the level of reluctance was normal, rather than indicative of malfunctioning software. To a degree, the CSR staff had expended some of its credibility over the Project's development. Extended attention was dedicated to: 1) which internal subject matter experts to use for training, 2) whether management might be permitted to enhance the quality of training given those individuals, 3) whether newly promoted supervisors should work regular work weeks or alternative schedules, and 4) a significant backlog of unresolved attendance and disciplinary topics that are still under discussion. PWC advised management that the CSR's feedback was merely normal difficulty adjusting to new tools, diminishing their input.

In summary, based on everything OPA knows as of this date, it cannot conclude that the risk assessment was unreasonable on the part of the then-General Manager or the management team as they attempted to evaluate Project readiness on August 22nd. This team had hired PWC to advise them, knowing that it lacked experience with this type of project. Subsequent and additional information has to be considered to reach a different conclusion.

Extensive non-performance by PWC affecting core billing functionality forced a sharp rise in staffing needs for IT, customer service, billing, meter reading and field representatives. PWC represented that the Project was ready and urged the DWP to proceed, even as it internally documented contrary indications. The management team believed PWC's verbal recommendation that the DWP was ready. They placed heavy reliance on PWC's assertion of experience with many similar installations, and under-weighted input from Customer Service staff and the QA vendor, based on experience with them.

2. Advisors: Management Team

Because the launch decision relied upon 15 members of the management team, OPA has undertaken to evaluate the state of knowledge and good faith underlying individuals at that meeting. It spoke with 10 of the 15 individuals, all of whom contributed to OPA's conclusion regarding the launch decision. It is evident to OPA based on all the facts and circumstances that this team relied on PWC.

The composition of this team, their skills, and the perspectives represented, was reasonably complete. The team included managers of very long duration, as well as more recent managers with skills in this area that the DWP could not have had with 40 year old systems. OPA's

recommendations for Joint Services Division structure and the Board's Audit Committee as supervisors of standards are based on its limited understanding of gaps and frictions within a very large project management team.

OPA finds the Water Division of DWP has a culture and discipline that is both good and effective. Project management routines and institutional framework appear stable and are consistently followed. The same cannot be said of the Power Division, which has sub-units with good project management but suffers from a high degree of in-fighting and difficulty with honest self-appraisal. The Joint Services Division, in OPA's opinion, demonstrates an excess of subservience to the Power Division. Cost allocation rules place more than half these costs on power rates, and the effect of this is excess managerial control outside the formal chain of command that is responsible for delivering these services.

The Joint Services Division has many specialized job types, and rotation is less grooved into the culture. At various times in its history, Customer Service has been conducted within one or the other of the operating divisions. Over time, this has undermined a clear hierarchy, which has led to decisions that can muddle the cost accounting for the Water and Power Funds with execution responsibility. This aspect affects many of the Joint Services, a Division that now represents 34% of the DWP's labor costs. Moreover, the two operating divisions have not adopted a customer-centric approach to delivery and execution of programs and offerings. At key junctures, they may not recognize customer service as having an equal part in utility operating function. In short, the "non-operating" Division operates in a "step-child" status inappropriate to its size and functions.

3. Board Representations Prior To Launch

Based on all OPA has learned to date, public briefings to the Board months before launch were fair summarizations of a complex, multi-part effort to train while software testing was ongoing, and the critical defects were still being resolved.

OPA has reviewed the February 12, 2013 transcript of the discussion between the Board and the Assistant General Manager for Customer Service. The statements made were not, in OPA's opinion, misrepresentations, but only simplifications of the large breadth of activity, contracts, and payment arrangements with multiple vendors.

Reports to the Board by the General Manager in June likewise reported fairly on the status of training and personnel readiness in the months before the launch. These comments were made in a context of continued work to reduce critical defects. In the typical lifecycle of these types of projects, June would have been too early to be definitive for the purposes of any readiness decision.

B. Project Costs

Through February 2015, the Project costs were \$193 million. After review, OPA concludes these expenditures were reasonable in magnitude for this type of project. The Project was over a decade delayed as well as complex. The DWP bills water, power, sewer, and trash services. The DWP therefore has a diversity of customer schedules, billing determinants and various calendar driven changes. *OPA is not opining on whether the DWP received the expected service performance of external or internal resources.* OPA's opinion is based on billing systems for utilities, multi-utility organizations, as well as the reported and informal assessment that the Chief Information Officer sought from Gartner, a leading IT research and advisory firm. Over the same period of time (Fiscal Year End (FYE) 2009 to 2014), the DWP added \$6 billion to its assets.

The total **professional services** paid through fiscal year end 2014 were \$76 million. The total through February 2015, was \$89.6 million. These were reasonable costs in magnitude for a project of this type.

Through February 2015, The DWP spent \$35.5 million of these Project costs on employee **wages**, both regular and overtime. These costs were reasonable in magnitude for a project of this type. Through FYE 2014, the DWP spent \$11 billion on wages and benefits, and over \$400 million on training.

In no year of the Project did the cost of time, for both employees and contractors, exceed 2% of wages or 1% of wages and benefits. This metric best describes the nature of this type of large, multi-faceted, mission-critical IT project due to the time it takes to install and prepare for use. A significant portion of the Project's costs followed standard cost-accounting practices, and allocated costs of running the DWP as a going concern to activities. A substantial portion of those costs would have been incurred without this Project. These allocations for the same February 2015 period were \$37.9 million, including \$21.5 million of personnel benefits.

The variance between the original estimate and actual vendor costs up to the launch were within reasonable parameters for this type and scale of project. At the time they were approved, OPA supported the key amendments to three vendor contracts for PWC, Oracle, and Five Point Partners. In magnitude, those costs were reasonable for this type of project.

While there can be no uniform "point of no return," OPA is of the opinion that failing to complete this type of multi-interface, multi-phased large IT projects when it is more than 50% complete becomes increasingly unreasonable as the project approaches completion. Higher levels of Board disclosure, justification, and public discussion are warranted in *terminating* an IT project over 90% complete, particularly if the project budget has been substantially exceeded. At this juncture, the more reasonable decision is effective management of an updated completion schedule and costs. Because it is an employee's choice to work overtime, this often involves transitional outsourced labor.

OPA reviewed the time and costs of sections of the Customer Service Bureau, in order to understand the sensitivity to attrition that the DWP had with Customer Service Representatives (CSR's). Attachment C is that analysis. Very mild attrition of hours worked, and very low overtime numbers, are associated with unacceptable call wait times.⁷ This phenomenon is a well understood aspect of call center management. The call center industry average wait time is nevertheless approximately one minute, 80% of the time. Note that effective management of call centers is measured with many other important metrics, including wait time. The DWP intends to evaluate its customer service standards, including call wait time, as well as investment levels in Stage II of planned benchmarking.

In fiscal year 2013-2014, the DWP's training and safety costs were \$132M of the \$150M budgeted. As such, it represented 12% of the \$1.089B in total wages of the firm. This proportion of time should be considered in evaluating staffing and work backlogs. The amount of the DWP's staff time spent in training for the CIS Project before launch was not a cost that could have been avoided. Before launch, it would have been paid whether the training occurred or not, because it is, to a large degree, the wages the DWP would have paid without the Project.

C. Lost Revenue

The DWP's audited financial statements currently provide the most reliable revenue values for fiscal year 2013-2014. Those amounts are listed in Attachment B, and reflect the audited financial statement estimates as of December 2014. For power and water combined, the net allowance for losses, also referred to as the *reserve* for accounts receivable that become "bad debt" and uncollectible, totals \$123 million, and the change from the two years prior to the new billing system is approximately \$94 million. These amounts represent 2.8% and 2.1% of a single year's retail revenue of \$4.46 billion. Actual write-offs of bad debt related to the Project will not be final for some time.

Management reported making a good faith but unsuccessful effort to re-start collections in spring of 2014, starting with the oldest past due bills, at a rate intended to avoid capsizing the call center wait times. Management claims it made reasonable trade-offs between call wait time and increased collections until after more trained CSR's were in place. Call wait times did not improve until September 2014, and collection activity increased significantly two months later.

In addition to the adverse impacts to employees and ratepayers, prioritizing collections without regard to the average call wait time would have been unreasonable in light of all the facts and circumstances known to management about the DWP's fiscal stability. The DWP's year over year growth in cash for fiscal year 2013-2014 was \$184.5M for power, and delayed work resulted in combined underspending by both water and power of \$904M, shown in Attachment

⁷ OPA measures overtime as the combination of paid overtime or earned time off in the numerator, and the number of regular hours in the denominator.

D. As such, management expended appropriate effort on collections of past due amounts relative to call wait time goals.

The DWP intends to do additional benchmarking work on customer service. Several collection practices have come to light post-launch that call into question their cost-effectiveness or inconsistency with industry practice. For example, the current number of payment centers may not be supported by a detailed economic evaluation. In contrast to DWP, other utilities supplement far fewer payment locations with third parties or convenience stores. Also, the DWP's practice of field collections should cease as soon as possible. Field collections foster an inaccurate perception of the DWP as involved in illegitimate activity, and can place employees at risk. Moreover, the benefit of customer convenience for a few accounts is a detriment to all other ratepayers because it encourages payment delay and requires a disproportionate use of field staff by a small number of accounts. Generally, the utility industry has evolved toward better collection practices. The DWP's reputation will likely continue to suffer until MOU negotiations of this work rule can be changed.

D. Summary Regarding State Audit

The OPA findings regarding the State's audit are as follows. Project costs were reasonable in magnitude. As of March, 2015, the financial statements bad debt reserve was the best revenue impact available with audit quality data. The discretion exercised by management and their timing of restarting collection activities was reasonable. The PMO functions would be improved by a span of control that matches its responsibilities, as well as a clearer chain of command. Utility management should not have to guess how critical its labor constraints may be when facing an unprecedented IT project, and hire for remote contingencies 18 months earlier.

V. THE OPA'S PERSPECTIVE

The OPA believes that the existing constraints to contracting and hiring are inconsistent with the DWP's public service obligations, and represent an ongoing hazard. This would be true even if an IT project of this scope is never repeated. However, this Project's adverse outcome may be able to provide the sustained motivation needed to restore agility lost by the DWP over a long period of time, and stabilize executive management. Moreover, the current hiring and contracting processes are too lengthy, but the DWP Board cannot sufficiently change or mitigate these processes.

A. Broader Prospective Options for the City Council and Mayor

Delay is one of the key underlying features generating disrespect and distrust in the labor management relationship. For example, if short-term outsourcing is needed for some uncommon or unplanned event, it is unrealistic to seek labor to consent, while years pass before permanent hires are made for more normal and consistent business variation. Waiting 18 to 24 months to get a benefit, while the counter-party proceeds with theirs, is not conducive to any partnership between management and labor.

The ratepayer rightfully expects accountability in utility services, but the responsibility for delay is broadly dispersed. The DWP's lack of agility comes from the City's procurement rules, civil service system, and labor agreements.⁸ More than a decade of ushering management out of an ever-revolving door has demonstrated an inability to cure the situation by changing executive management. The DWP has a management-labor relationship that is unlike that of any other utility known to OPA, and the result is that some practices are decades behind the times.

In OPA's opinion, this occurs in a governance context with an abundance of checks on delegated action, and few or no proactive and public means of balancing executive and legislative functions in a timely public process. Within the confines of the City's charter concerning proprietary departments, some minor adjustments may prove useful.

The level of non-cooperation within some areas of the DWP is improving under the current General Manager, but nevertheless exceeds reasonable boundaries. While the negative impact of the billing system implementation will fade in time, OPA recommends that the City take stock, and select some of OPA's broader recommended actions after discussion with the DWP's Board and management. To summarize the recommended objectives:

1. Ensure a set of parameters are set enabling procurement and emergency hires in 30 days when necessary for service quality;
2. Ensure the DWP can hire within a 180 day window under normal circumstances;
3. Ensure the DWP can meet most of its service and materials needs within a 90 day window under normal circumstances.

OPA would encourage a carefully defined "Safe Harbor" for urgent needs reflecting utility service standards, and dedicated, seamless City Attorney assistance until this is adopted and formalized by the City Council and Mayor. The DWP Board can report to the City Council on recommended utility operating parameters, so that the City Council and Mayor have the information needed to evaluate new procedures or delegation authority for these circumstances.

⁸ As an example of small rigidities with meaningful cumulative impact, OPA and the DWP have tried without result to make one minor and non-substantive form change in procurement that would save both time and millions of dollars, but thus far the Ethics Commission and City Attorney have not acted.

Also, the DWP Board can report to the City Council on those hiring and contracting constraints that, under normal circumstances, are key drivers of elapsed time that are beyond the Board's control.

The DWP's current situation is the business equivalent of the cumulative negative impacts in environmental assessments in that it has built up over a long period of time, it has many causes, and it will take nearly as long to remedy. Action is needed to stabilize management so that these long term governance adjustments can be executed, and a balanced partnership with labor can be restored. The current cumulative constraints are inconsistent with the responsibilities of a large utility's obligations to serve the public.

The foremost and most telling negative example from this Project is the call center. Customer service representative (CSR) attrition resulted in less available labor to answer phones. Before the Project launched, this attrition of hours in the fiscal year ending 2013 was -8% "regular" time from FYE 2012.⁹ Regular time is all compensated time after accounting for holiday, vacation, sick, administrative leave, and overtime. A shift to overtime was one consequence of this attrition. In the same period (FYE 2012 to FYE 2013), attrition pushed overtime hours up 16%, the overtime-to-regular time ratio up to 8%, while dropping regular hours worked down to 59%. This pattern of shifting regular for overtime hours occurs throughout the DWP, and is unobjectionable to OPA below 10% overtime. It makes efficient use of firm overhead costs, particularly personnel benefits. While the MOU terms for this organizational unit provide for no more than an offer of 5% overtime before outsourcing, DWP was operating above that level since 2010, if not earlier. Planning for retirements and turnover during Project development only provided for 8 new CSR's, authorized in 2012, despite much higher estimates of retirement.

CSR overtime hours in the year following launch (FYE 2013 to FYE 2014) was **12%**, a mere 4% higher than the prior year. Call wait times for ratepayers can and did rise dramatically and disproportionately near the lower limit of customer service call capacity. *This small 4% change illustrates the large service quality sensitivity to staffing levels in this part of the organization.*

In the year following the launch (FYE 2014), some 85,419 hours of customer call representative time were added in the year of deployment, an increase of 15% regular time and 64% overtime. Extensive efforts were made to hire and train faster, yet call wait times were not well controlled until September of 2014, nearly a year after the launch and for reasons not within management's control.

⁹ Attachment C summarizes staffing statistics for Unit 17, the Customer Service unit, as well as the CSR's, meter readers, and CIS Project's dedicated staff.

The Customer Service Bureau and the DWP both attain 72% regular hours. CSR time spent answering phones was negatively affected by the Project. Measures of regular hours fell to 58%, from an already low 2012 starting point of 65%. These significant decreases represent approximately 1,000 to 2,000 hours of reduced production at regular CSR cost.¹⁰ Short staffing also causes denial of vacation use requests due to lack of slack, which reportedly raised the number of requests for allowed family health-related leave.

The DWP has few objective measures to trigger outsourcing decisions. Labor and management may thus fail to negotiate a timely Letter of Agreement (LOA), when it is required. This result is not some personal failing, but rather is the result of the governance chosen for the DWP. When two partners each have a vote, *it is self-evident that they also each have a veto*. Vetoes are biased toward the status quo, making the other partner pay for change.

Pockets of the DWP's operations are stuck in the past. For example:

- While the DWP has planned for a backup call center over the last decade, it still does not have one;
- Over \$400 million of power bills involve manual entry of 18 line items per bill; and
- Automated meters that have data transmitted daily to the billing system are nevertheless read manually.

Many more examples exist. While personal accusations about Project planning and advance hiring may continue to plague these issues, OPA's experience does not suggest such focus creates meaningful improvement. Veterans of the DWP have described an inability to hire following many recessions. Many have described the morale and management problems of a constant "blame game" and turnover in utility management. High turnover in management, already a large causative factor, renders obstruction a successful strategy to defer automating work.

Economic disparities exist between work done by the DWP payroll employees and contractors, for a variety of causes. There are no generalities that can determine under all circumstances when to hire additional labor through contracting, or when to add to payroll permanent staff. One can, however, be certain that taking more than twice the time while urgent needs go

¹⁰ As a related matter, the existing attendance improvement program excludes enough attendance data that it does not help the DWP fairly apply its work rules. Because the largest factor affecting call wait time is controlling attendance, this variation from 72% regular time directly affects performance.

unmet, or spending more than twice the funds when external resources are competent, is *unlikely* to be a reasonable cost that belongs in rates. Clearer bright-line standards would be helpful, but must await the next MOU negotiation. An efficient mix of available labor resources, one that fairly accounts for firm overhead and benefits allocation, has not evolved with time, despite the need for it.¹¹ In this instance, an inability to quickly supplement billers contributed to too many unacceptably large correction bills over unacceptably long periods.

The DWP's current retirement rate is putting further pressure on the old and unresolved problems of not having its own civil service system to manage personnel. These problems were identified in the 1990 Decennial Survey of the DWP, and led to recommendations of corrective action or, failing that, excising the DWP from the City's civil service processes. Even if certain civil service lists are stabilized, as recommended, these impediments have broad and negative impact. Feeder positions prepare and qualify staff to apply for other positions inside DWP. Preserving active lists for "feeder" positions in the DWP is no more than a stop-gap measure: it is wholly inadequate to address the full dimension of the personnel constraints the Board cannot control or mitigate.

The existing civil service system cannot meet the DWP's needs for IT staff given the high rate of technology change and specialization in information systems. This staffing challenge fails to provide the Joint Services Division with the flexibility to hire the missing IT expertise at all wage levels of the organization, so that training can be supported as DWP staff undertake the next decade of large IT changes. Without that flexibility, modernization will be on hold even though existing staff *could* be trained to make the transition. With that flexibility, the whole firm will eventually become more productive.

To inform longer term efforts and restore a more balanced labor-management relationship, OPA suggests that the Board request and City Council direct the CAO and Personnel Department to review, report and provide documentation concerning the total amount the DWP pays for Personnel Department support, and the level of objective activity (e.g., number of exams, number of hires) that results compared to the same measures and total funding support

¹¹ Delay is the primary constraint. However, several specific outsourcing practices contribute to that delay. First, when the DWP contracts for missing subject matter expertise in staff, labor must agree that expertise is actually missing, and that determination can be highly subjective and difficult within an insular culture. Second, staff that could not otherwise do the work is often allocated 10% overtime in a time consuming process. Third, work that is backlogged, as evidenced by sustained levels of overtime hours already over 10% and up to 58%, can cause delay of a year or more to determine how to add *additional* payroll value. For example, by specifying how many Sundays (compensation 2 times the hours actually worked), will be allocated in an additional 10% overtime. Fourth, when timing feasibility is an issue, labor must agree against a backdrop of sustained and systematic problems with authorized hiring, wherein management has no ability to execute hiring commitments that offset contracting in time or scope. The DWP cannot consistently staff for recession levels of fiscal constraint during the macro-economic cycle (e.g., 1991, 2001, 2008), which is a complex topic when productivity investments greatly reduce the need for manual tasks.

of other City departments, including the Police and Fire Departments. This information will inform efforts to reduce delays that unduly complicate the DWP's labor relations and public accountability. With that in hand, the Mayor and City Council could consider the options and alternatives to the DWP's current hiring process, and move to recommend changes by the City Council.

The Mayor and City Council could also consider changes in the qualifications of future DWP exempt positions with base pay over \$150,000 (in 2015 dollars), to require at least seven years of utility operating experience, in order to re-balance the labor-management relationship. The Mayor and City Council could similarly consider using five year contracts to stabilize these positions, which turn over with excess frequency.

America's second largest city requires a power and water utility with a better capacity to respond to *whatever* may require immediate resources. Utilities are *not* like airports, ports, fire protection or police protection. Planning cannot eliminate this requirement to be responsive. Many urgent operating situations fall short of an emergency, which by definition involves immediate impact to physical property or public safety. Because the existing DWP resourcing constraints are abnormal for a utility, the Mayor and City Council could request the Board specify conditions that constitute an urgent impairment of DWP's service quality metrics, inclusive of customer service, for the purpose of evaluating and enacting appropriate procedures to authorizing Board action within 30 days. Similarly, the Mayor and City Council could request the Board specify those drivers of delay in regular hiring and contracting that are beyond its control and incompatible with a six month hiring objective or a three month contracting objective for normal business.

B. Narrowly Tailored Prospective Action for the DWP Board and Mayor

In large scale utility IT projects, an evidence-based means of addressing work in progress is centered on the role of a mature Program Management Office. A special feature of these projects is the need to keep all features functional at all times, while changing them. These major programs are like changing software on all the control towers and airplanes in flight at the same time: there is little room for error of tightly coordinated activity. For broad-scoped projects, a PMO that merely facilitates a client cannot function in the DWP's cultural context. The PMO should have the authority to timely replace Quality Assurance (QA) and testing functions that are inadequate, even if that was not planned.

An Information Systems PMO can flexibly assemble individuals as needed, with both internal and external resources.

- A strong PMO is not an individual: it is a delegation framework around collaborative efforts that take the form of written procedures and processes. It

ensures those working on the project have the correct expectations about the steps the project team will take to manage conflict.

- Correctly implemented, a PMO stabilizes long project development periods from turnover, and buffers the execution pressure placed on any one individual.
- DWP's PMO should also address the adequacy of staffing in any division, and help identify cooperation necessary for a project to succeed.

Upcoming and complex IT projects have been long deferred. They will involve the financial systems, as well as smarter grid controls and customer options made possible in part by the new billing system. As just one of many examples, the Joint Services Division and IT Department should be responsible for implementing a design for meter data management over the long run, after adequate opportunity for consultation (not direction) from the operating divisions. The PMO will need established protocols for controlling scope creep and continuous redesign during development, as these factors have frequently driven unreasonable cost overruns in larger utilities. OPA believes this degree of control is unlikely with the reporting structure of Joint Services Division and the IT Department of the last year.

A final QA report for large IT projects could be delivered to the Board's Audit Committee, and have the support of the DWP's Controller of Accounting and Financial Reporting, and the senior PMO-tasks individual who is concerned with compliance of PMO procedures. Both of these managers with quality control roles should be available for important risk evaluations by this Board committee when an IT project raises potential to affect the financial controls in the environment. The Audit Committee review should precede any presentation to the full Board. Both would continue to work within a management chain, but have a direct fiduciary relationship to the Audit Committee. This relationship enables confidential information to inform the Audit Committee's report to the full Board. Audit Committees of boards are the appropriate venue for sensitive risk management discussions. Direct fiduciary relationships to an Audit Committee below the Chief Financial Officer level is an established practice in many types of businesses.

The DWP appropriately planned and procured an independent QA vendor to help guide the CIS Project management. Reasonable reservations about IT quality control existed; these are a normal part of every large scale utility project OPA has experienced. The DWP needs the flexibility to quickly replace this vendor at any point during a project, and does not have it. Many urgent needs of this type can arise, yet the Board has no means of acting on them.

The DWP reports that its IT strategy was independently reviewed by Ernst & Young, who advised a stronger internal PMO function. OPA finds management reasonably concluded that building internal expertise for the long run was the most cost-effective strategy. Nevertheless, a

mix of expertise and resources will be needed to manage projects. The PMO needs to be more formally authorized to enforce a stable and effective test environment.

One challenge experienced was a lack of common understanding across DWP of the IT Department and the PMO role in managing this Project. The IT Department needs more institutionalized procedures, given turnover that occurs over long projects and lack of experience with large scale projects. Areas that a PMO should have General Manager approved standards for include the scope of its authorization for the following activities:

- (1) directing vendors,
- (2) instructing DWP personnel dedicated to the project,
- (3) specify actions requested of Power and Water Division personnel not dedicated to the project,
- (4) setting standards for payment of coding and its documentation,
- (5) requiring integration and configuration solutions proposed for vendor review,
- (6) setting conditions for testing of code,
- (7) setting criteria for defect materiality,
- (8) setting criteria that determine when a business case is a pre-condition,
- (9) scheduling Internal Audit verification of essential fiscal controls,
- (10) setting procedures followed for contract amendments (including explicit decision processes for work-arounds, deferment of functionality, and change orders), and
- (11) standardizing the framework and processes, including appeals, that will be used to orchestrate all these elements in a sequence all project participants within DWP can understand and follow.

The Joint Services Division should properly segregate revenue-quality meter data, billing calculations, and rate design, with the appropriately secured access to customer data that protects it in accordance with industry standards. The Joint Services Division should have both IT and Customer Services reporting to that Division's senior executive. Given contemporary IT projects and new customer offerings, operating divisions can then cooperate more as equal partners, with the understanding that the Joint Services Division will be building and running these systems and customer services. Given the DWP's history, significant time will be needed to change the culture of how these three Divisions work together, especially with the wave of retirements that may leave the DWP unable to stabilize itself with longer term relationships. Because more IT projects are needed, stronger and more specific role definitions institutionalizing project management are encouraged. Because more customer choices will be

offered, operating divisions need to change how they relate to customer service delivery. Both require institutionalizing new practices.

The negative consequences of failing to rapidly increase resources at any point after launch of this Project were under-estimated. Staff should not be in a position of volunteering to work on Joint Services Division projects, but only at the risk of finding their permanent job filled when the project completes. Job rotation for projects is not as common in the Joint Services Division as it is in Water and Power Divisions because there are higher levels of specialization and less slack. Because of an over-riding commitment to savings through attrition, some management would not ask for backfilling or new personnel. Late in a project, employees may choose to move away from an increasingly difficult or stressful project position, and this only adds to the project management challenges. The Board should expect the PMO to identify resources lacking in any division, as the project evolves. While it may not be possible to add staff, given all other managerial concerns, at least the Board will understand the pace of project completion, and hopefully accept the related increased costs, including organization overhead costs.

OPA did not yet exist when this Project was initiated. Should there be disagreement in the future about the costs of professional services, availability of internal expertise, desirability of developing internal skill sets, or plans for staff needed to make productivity investments, OPA is available to give advisory opinions by letter in advance of Board meetings or formal budgeting of the related costs. Ratepayer advocates can, with transparency, offer guidance.

As a concrete example, it is sometimes the case with mission critical systems that a second system integrator tests the work of the primary contractor. OPA's written support can overcome debate about whether these costs are inefficient, duplicative, or prudent. Such costs, depending on all the circumstances, can be reasonable to include in rates.

A resilient utility requires resources to protect the call center employees and functionality under a *wide* array of experienced and potential disasters, regardless of what causes the increase in demand. Permanent staff augmentation should be required if a backup call center is used too often to attain the DWP's wait time goal. With the benefit of what has been learned in hindsight, it would be **grossly negligent** for the DWP to permit an average customer call wait time to exceed 10 minutes for more than 4 hours. This wait time is approximately 10 times longer than the *call center* industry average. While utilities adopt goals with some variation around this one to two minute average, the trigger is generous in its length (4 hours) *and* twice the existing DWP goal of five minutes.

Statements that this work must be done inside Los Angeles are inconsistent with business continuity principles, given the location of the City's critical infrastructure and vulnerabilities. Statements that this work cannot be done well if done infrequently might have been true with the old billing system, but the new system has many more options for call allocation. Once

experience has been gained, and management has solid data on the metrics now available from the new system, then planning this center outside of Los Angeles with DWP staff would be appropriate. Two years of backup call center operations with a contractor should be sufficient to gather the relevant data, gain experience in optimizing call wait time, analyze the logistics of emergency-driven staff relocations, and propose a long term, flexible plan for this vital function.

The current DWP outsourcing process is, on rare occasion, unacceptably inefficient. Many DWP contracts are subject to the MOU's process in Appendix B, which expedites union review and DWP procurement in most instances. However, in the 18 months that followed the launch, it was not clear to the public whether DWP management sought additional contract resources through this process or not. This leaves the public uninformed about why additional resources are not being used, with negative reputational consequences for all involved.

Improving the transparency of the process by which out-sourcing agreements are reached will: (a) improve public trust in the DWP management and its over-sight by the Board, Mayor and City Council, (b) improve employee trust in the partnership it has with management, the Mayor, and the City Council, and (c) may lead to faster agreement.

OPA suggests that until the MOU negotiations can improve disclosure of the outsourcing constraints, the DWP's Labor Relations staff publicly disclose all MOU Appendix B processes that have initiated for all RFP's in process, and update monthly those that have concluded. If an LOA has been reached, this should be publicly provided. The RFP's should be described in the manner used to describe services in Board agendas. This step should limit obfuscation of responsibility for what would be a more normal utility response to crisis, no matter how caused. If management fails to follow the procedures to obtain resources, or labor refuses to agree to short-term needs, the Board, the City Council, the Mayor, and the public will be better off knowing whether management failed to seek or was unable to complete Appendix B's procedures.

The Appendix B process cannot be expected to reliably conclude within 30 days. Therefore, the DWP *also* needs a "Safe Harbor" exceptional process to the normal outsourcing procedures for dire and urgent operating conditions. The first step in defining this type of Safe Harbor is to set forth minimum service quality standards that are utility-specific equivalents to an operational emergency. Such conditions are not reasonably sustained over 30 days, and place very high burdens on employees and customers. These conditions do not wholly coincide with natural disasters, a type of emergency the DWP is better prepared for. The DWP Board should be delegated authority to contract within 30 days when the operational status is dire, while accelerating hiring, in order to supplement staff until an unplanned crisis has passed.

Another transparency issue concerns bad debt resulting from the transition to the new billing system. It is particularly important to the public trust that DWP be transparent regarding power and water *reserves* for bad debt, and bad debt *actually* expensed, for each class of customers, and government customers in particular. The public is also concerned with bad debt being shifted from sewer and trash bills to the DWP. The Board can supplement this power and water information with any authorized disclosures for trash and sewer accounts receivable, reserves for bad debt, and bad debt expensed.

The Board could request a management report, to be submitted following budget adoption, on obstacles to outsourcing backlogged work of the prior fiscal year, concurrent with a statement of unexpended funds from the prior year. Labor costs are reviewed and approved with the budget. The report at a minimum should identify *by organizational unit* those units with more than 10%, 20%, and 30% overtime hours on an annual basis, despite efforts to achieve authorized personnel (APR) levels. (Units subject to an MOU with a 5% overtime offer as a pre-condition to outsourcing should have that level identified as well.)

At that time, management can present proposed actions linked to each of these overtime thresholds.¹² Addressing this on a transaction by transaction basis during the fiscal year is insufficient: a systemic approach with objective parameters is needed, even if those parameters are organizationally customized. Overtime ratios should use only regular hours in the denominator, and hours of *both* paid overtime and earned time off for overtime in the numerator. This accounts for operational impacts when earned overtime is not paid, but taken as time off.

VI. CONCLUSIONS

This section describes the OPA's Findings and Recommendations.

A. Findings

These CIS Project findings address four main areas:

¹² OPA would emphasize that "proposed actions" cannot be uniformly applied, but need to take into consideration the value ratepayers are receiving for the funded activities, the criticality of the activity, the level of difficulty associated with alternative solutions, rigidities of job duty definitions, economic comparisons for significant differentials to fully loaded staff labor costs, and persistence of the backlog. No action may be appropriate when all the facts and circumstances are evaluated, however this should be stated in the report and supported.

- the reasonableness of the fiscal impacts incurred by the DWP and the related impact on power and water rates,
- the reasonableness of the DWP’s “policies, procedures, decisions, contracts, and programs,”
- customer service performance, and
- the transparency and accountability of the DWP to the public.

These subject areas are taken from OPA’s enabling ordinance (No. 182494). In addition to informing the general public and ratepayers, this ordinance specifies the intended recipients of OPA’s advice as: the Mayor, City Council, and the Board of Water and Power Commissioners (Board).

Fiscal Impacts

1. The original budget estimate for the CIS Project was reasonable in magnitude and competitively bid. Note that due to pending litigation, OPA specifically excludes from this opinion any conclusions about the actual Project performance of vendors.
2. The actual costs incurred for the CIS Project to date have been reasonable in magnitude for this type of project. Due to pending litigation, OPA specifically excludes from this opinion the actual Project performance received for payments to third parties.
3. The DWP labor costs incurred for the CIS Project to date have been reasonable in magnitude. They reflect a long term investment in correcting the DWP’s customer service performance.
4. OPA supported the key amendments to three vendor contracts for PWC, Oracle, and Five Point Partners at the time they were approved by the DWP Board. In magnitude, those costs were reasonable to incur for this type of project. Due to pending litigation, OPA specifically excludes from this opinion any conclusions about the performance of the vendors.
5. The reserves established for fiscal year 2013-2014 by the DWP’s Chief Accountant for power and water bills that may prove in the future to be uncollectable was reasonable and was based on the information known at the time. Due to pending

litigation, OPA is not opining on damages arising from the claims against vendors.

6. According to the DWP's audited financial statements, the normal levels of accounts receivable and accrued, unbilled revenue for power and water the year prior to this Project were \$758 million. In the year of Project deployment that audited amount was \$771 million. The Project's impact is evident in a change to the reserve for bills that may turn out to be uncollectible, which rose from \$29 million to \$123 million, an increase of \$94 million. This number is an estimate in the DWP's audited financial statements.

Quality of Customer Service

7. The system integrator accepted the obligation to remediate all "Severity 1" level defects in a set time frame and with a specified work force.
8. DWP benchmarking has identified bill collections as needing improvement. With a modern billing system, many improvements in collection processes are now feasible, and many existing methods should be reassessed for cost effectiveness. These efforts will inform future MOU negotiations.
9. Prioritizing bill collections without regard to the impacts on average call wait time would have been unreasonable based on all the facts and circumstances known to management regarding the DWP's fiscal stability and other adverse impacts of the over-burdened call center.
10. Management expended appropriate effort on bill collections of amounts past due over 90 days from government customers, however the outcome remains uncertain.
11. A daily average call wait time of 30 minutes produced individual wait times of at least 45 minutes. OPA received many customer complaints of wait times as high as 90 minutes.
12. The call center industry average for wait time is approximately 1 minute for 80% of the calls. The utility industry average goal has more variance but is generally from 1 to 2 minutes. DWP management reports the DWP's objective is for an average call wait time below 5 minutes, primarily due to labor constraints.

Benchmarking of this and other important call center metrics will be proceeding in Phase II of the DWP's benchmarking efforts.

13. DWP should activate a back-up call center any time the average call wait time exceeds 10 minutes for four hours because: (1) backlogs are difficult to clear, and (2) call wait times rise rapidly when call center capacity approaches a lower limit. Functionality should be sufficient to handle the most common and simple sources of call center overloads, and include account starts. Note that account starts involve security of personal customer data, which is a routine matter for most call centers.
14. With the benefit of hindsight, it would be grossly negligent to permit an average call wait time to exceed 10 minutes for more than 4 hours. This standard is ten times larger than the call center industry average, and twice the DWP's goal.

Practices & Policies

15. The existing DWP institutional framework cannot facilitate reasonable response to urgent needs for additional labor resources. The responsibility for this is divided between the Board, the City Council, the Mayor, an executive management with high turnover, and the IBEW 18.
16. The imbalance between labor and management is sufficiently dissimilar from other public or private utilities as to materially impede the DWP from moving out of the last century and implementing industry standards that have evolved since then. Over the course of the billing system stabilization effort, a difficult and unplanned set of project demands was made worse by an inability to procure human resources. Timely requests for action to supplement staff were not publicly discussed with the Board.
17. The DWP does not publicly disclose steps in the outsourcing process. The effect is to ensure the public attributes the consequences of inaction of either sudden or chronic under-staffing equally to the DWP's management and labor, the Board, the Mayor, and the City Council.
18. The standards that measure economic trade-offs between short or long term outsourcing do not work reliably. Identification of an efficient mix of available

labor resources, one that fairly compares overhead items such as benefits, is elusive in the current institutional framework.

19. The existing governance mechanisms perform well for classic types of water and power projects and emergencies. However, productivity boosting IT projects are needed in the DWP, and they pose significant and large risks to stable operations. DWP is a highly decentralized organization, and has relatively less mature institutionalized practices for addressing centralized IT services. Evaluation of governance for these types of projects is needed. As the Board is rarely presented with policy questions, infrequent decisions about strategy may benefit from clearer delegation or specialized Board procedures.
20. DWP lacks the adaptive capacity required to respond to urgent demands for specialized resources, as this CIS Project made clear. Stickiness and rigidities in labor utilization, rather than a denial of funding, contributed to the course of events.
21. The turnover of key management personnel during the multi-year *development* of this Project was not offset by a mature and fully developed Program Management Office.
22. The turnover of key management personnel during the *post deployment* period to date of this Project was not offset by a mature and fully developed Program Management Office.
23. Both the Great Recession starting in 2008, and the turnover in key DWP management, led to critical civil service lists expiring. As such, in fall of 2013 the DWP did not have viable candidates to hire, and thus did not meet utility standards of customer service. DWP personnel with long tenure informed the OPA that this phenomenon has occurred many times over the past economic cycles.
24. Due to DWP's chronic work backlogs and project delays of more than one year's duration, customer rates are poorly matched in time to actual expenditures.
25. The DWP used to measure overtime hours relative to "regular" compensated hours. This measure at the organizational unit level appropriately captures the operational result of that time so that staffing levels can meet demands. This

practice would aid the DWP in matching funding to staffing and work performed.

26. Call wait times for ratepayers can and did rise dramatically and disproportionately when approaching the lower limit of customer service call capacity.
27. The DWP made extensive efforts to hire and train CSRs faster, yet call wait times were not well controlled until September of 2014, nearly a year after the Project launch.
28. For complex and inter-related reasons, the Project reduced regular time of CSR's to 58%, from a 2012 starting point of 65%.
29. While improvements in training for CSR's have occurred, management reports limitations in securing the quality of training it seeks from the existing human resources, and difficulties in supplementing those resources with broader industry experience that the DWP does not have yet.
30. As a result of the governance chosen for the DWP, labor and management can fail to agree to timely outsourcing. No backlog measures are used and the existing standards do not work reliably.
31. DWP management was unable to secure sufficient labor to manually process the large backlog of delayed and erroneous bills generated by the new billing system. The consequence was a larger build-up of charges and corrections to ratepayers when bills ultimately issued or were corrected after periods of a year or more.
32. More IT investments will be needed to modernize the DWP's administrative and general services in the Joint Services Division. Many of the DWP's systems are 20 to 40 years old and rely on aged hardware.
33. The DWP's human resource constraints are a hazard and impediment to the flexibility required for successful large scale IT projects. Better scoping activity in large IT projects is unlikely to remedy the existing organizational and cultural challenges to large scale IT management. There is an intrinsic challenge of "peeling the onion" that requires flexibility and addressing impediments once a

layer of issues are dealt with, but more work is triggered by additional details that are thereby revealed.

34. The DWP should cultivate the industrial partnerships that are needed to bring internal knowledge and skill levels, in and out of the Joint Services Division, up to the demands of maintenance and version changes for the software selected. As other large utilities have learned, their high reliability requirements must be supported with internal capability, and an intimate understanding of system capability. The new system is not a replacement system, and the nature of the software vendor relationship will not match past DWP experiences.

Transparency & Accountability

35. The DWP management's commitment to good faith negotiations and mutual gains bargaining creates an inherent conflict in publicly making recommendations to the Board that would materially improve the resilience of the organization. There is no time limit on negotiations over out-sourcing when: a) an urgent failure of service standards is occurring, or b) more than 10% overtime hours is already being incurred in the business unit that would otherwise do the work that is backlogged.
36. No public understanding of the delays in out-sourcing could be based on information now available on public Board agendas. This lack of transparency leaves no one responsible for rising delay costs.
37. The existing MOU's Appendix B procedures for outsourcing can cause delay when urgent demands for resources arise. These demands are intrinsic to the utility business because of the high reliability expected in service, and the unreasonableness of hiring and charging in advance for every conceivable contingency, no matter how rare.
38. Despite best efforts and competent management, the DWP required nearly six months to place trained emergency customer service representatives, twelve months to place trained permanent customer service representatives, and 18 months to place new field or new billing staff.
39. Settlement confidentiality is necessary and appropriate for out-sourcing negotiations between management and labor; however, there are many ways to

execute and improve upon the purposes and scope of that confidentiality that would allow the City's complex check and balance governance to improve its timeliness.

40. The custody of commercial and industrial meter data is not meeting industry standards for risk management and segregation of duties.
41. The installed Oracle software module that enables the DWP's Internal Audit staff to perform regular and customary functions is not yet performing at an acceptable level.
42. The DWP's existing PMO did not have adequate project control, and the Board lacks a framework for understanding the necessity and appropriateness of proposed IT change orders and amendments.

B. Recommendations

After a full restitution for any vendor non-performance, the remaining outcome ratepayers endured in this CIS Project is due in roughly equal parts to the lengthy civil service processes for managing personnel, the procurement processes, and the labor rigidities. Moreover, the high turnover in the DWP's General Manager position has exacerbated all of these elements because the changes needed take more time than a typical General Manager's tenure. This renders much of the executive management team effectively a "lame duck" from their first day.

To summarize the recommendations that follow below, actions should be taken to:

- 1) Raise to equal status the Joint Services Division management so that its span of control is commensurate with the important services it provides;
- 2) Develop a more mature Program Management Office responsible for the development and deployment of large IT projects that cross organizational unit boundaries, using delegation procedures that encompass labor restrictions and operating risk in addition to time and budget;
- (3) Render transparent the time for outsourcing negotiations and hiring; and
- (4) Immediately establish a backup call center.

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OPA's more detailed recommendations for the Board (B), the Mayor (M), and the City Council (CC) are:

1. (B, CC, M) The DWP Board should request the City Council and Mayor initiate labor negotiations by the City Administrative Officer (CAO)¹³ to establish a backup customer call center outside Los Angeles, without further delay. The Board should urge as a high priority the engagement of a competitively selected bidder. This contract should seamlessly handle call volumes that produce a call wait time over 10 minutes, sustained over any 4 hours in any day, without any other pre-conditions, such as an emergency declaration.
2. (B) With respect to the above recommendation, the Board could commit the DWP to augmentation of permanent customer call representative staff in the next fiscal year if this backup call center is used more than a mutually agreed, objective standard. Until such time as such a mutually agreeable standard can be reached, OPA believes more than 180 hours per year of reliance on a backup call center should be considered a trigger for increasing permanent staff in the next fiscal year.¹⁴ The Board should consider, 2 years after wait time performance and economic experience is gained with outsourced calls of various types, plans for permanent and fluctuating staff levels at a backup call center outside Los Angeles.
3. (B, CC, M) The DWP Board, the City Council, and the Mayor could adopt shared goals to guide ongoing efforts needed to restore the DWP's agility. The DWP Board should have sufficient delegation authority in the event of unmet urgent service needs that DWP can contract for support within 30 days, while accelerating hiring. Under ordinary circumstances, the DWP Board should be granted sufficient delegation authority to procure most short-term materials and services within three months, and hire permanent staff within six months. Adopting these goals as shared is the first of several steps in working through alternatives, new procedures, and any related code changes requiring subsequent, formal City Council action.
4. (B, CC, M) The Mayor and City Council could request that the Board propose a "Safe Harbor" exceptional process to the normal outsourcing or hiring procedures by

¹³ The CAO is the individual directed by the Mayor and City Council in negotiations to determine the terms and conditions of unions' Memorandums of Understanding.

¹⁴ These are not person-hours, but any hours the center was used. The derivation of 180 hours is 10% of 1800 hours. Ten percent is twice the negotiated overtime level (5%) for CSR's. Eighteen hundred hours of total time exceeds the regular time worked by the DWP at large (1,440) or the CSR organizational unit (1,044).

- defining the minimum service quality standards that constitute a utility-specific, dire and urgent operating condition. Such conditions are not reasonably sustainable over 30 days, and place extraordinary burdens on employees or customers.
5. (B, CC, M) The Mayor and City Council should request that the Board direct the DWP management to promptly post on the internet the in-process RFP's that have initiated procedures under MOU Appendix B, and update monthly those that have concluded, while posting all LOA's that result. The RFP's should have the same descriptive transparency of the contractual services as the Board agendas.
 6. (CC, M) Because of the severe imbalance in labor-management relations, the City Council and Mayor should consider setting minimum utility experience standards for at least half of *future* exempt management placements, for the purpose of rectifying an imbalance in labor and management relations. For example, future placements could require at least 7 years of utility experience for all exempt management with base wages over \$150,000 in 2015 dollars.
 7. (B, CC, M) The Mayor and City Council could create at least ten IT-specific exempt positions at a variety of wage levels within the DWP to encourage lateral migration from other large utilities. Due to the specialized skills needed, the existing civil service system cannot support internal training from the "bottom up" fast enough to stay current with the industry.
 8. (CC, M) The City Council and Mayor should evaluate a set of civil service lists that the DWP Board requests be designated as "critical" in light of its experience, and institute practices that will ensure those lists remain populated with viable candidates for hire through all changes in management, macro-economic cycles, elections, boards, or other eroding factors. Further, the City Council and Mayor should evaluate the turnover in executive management and consider the customary practice of using management contracts no less than 5 years in length for key management.
 9. (B) The DWP Board should request that management reconsider the organizational structure of the Joint Services Division services (i.e., all administrative services shared by the operating divisions). OPA is of the opinion that the Joint Services Division is too subordinated to both operating divisions, and that this constitutes an ongoing hazard due to the current organizational culture and turnover.

10. (B) In order to improve the public trust, the DWP Board should request management publicly post on the internet semi-annual reports that disclose changes to the fund reserve for bad debt and actual bad debt expensed, by customer class, with a specific line item for government, for water and power. The first report should include each of the six month periods to date, starting January 1, 2014.
11. (B) Both in general and by project, the General Manager should be requested by the Board to institutionalize more formal PMO standards, practices and guidelines, as discussed in the body of this report.
12. (B) The DWP Board should ask management to develop criteria by which it determines before beginning a project whether independent testing of the Project's functionality is appropriate.
13. (B) The DWP Board should request management integrate a more developed Program Management Office (PMO) function for large IT projects. Delegation levels should be guided by a PMO through all stages, and include reporting on labor limitations and operating risks, in addition to traditional project management measures of cost and time. The organization's handling of disagreement with the PMO should escalate in demarcated and defined steps to: (i) the most senior executive in each of three Divisions, (ii) the General Manager, and, if necessary (iii) the Board *in an open meeting session*.¹⁵
14. (B) The DWP Board should establish that the most senior person assigned to the PMO and the DWP Controller¹⁶ should have a direct fiduciary relationship to the Board's Audit Committee, and report to this committee before large or complex IT projects are launched. The PMO should define procedures and processes that minimize impact of vendor or personnel changes through all stages of project delivery.
15. (B) The Board should request that management evaluate and report the month after its annual budget approval: (a) the estimated underspending on the prior budget year, and (b) the extent to which it has adequate flexibility to promptly out-source

¹⁵ OPA would note that the speed and clarity of this structure will rarely result in the necessity of taking the last two steps.

¹⁶ This role is currently with the Assistant Chief Financial Officer and Controller of Accounting and Financial Reporting. Should the most senior accountant with these professional duties be relocated to another position, that position should have this responsibility and report in addition to the Chief Financial Officer.

work that is backlogged, as indicated by operational impacts and related organizational overtime above 10%, 20%, and 30% thresholds, as discussed in the body of this report.¹⁷

16. (B) For risk management consistent with industry standards, the Board should request the management have the Internal Audit module for the Oracle software be fully operational and available for the version installed, as soon as practicable.¹⁸ The senior Internal Auditor should certify satisfactory delivery of planned functionality from this module to the Audit Committee of the Board when this is accomplished. Similarly, the interface between the new billing system and account data managed by the Rates Manager should be created as soon as practicable to establish appropriate segregation of duties and eliminate manual entries.
17. (B) To mitigate one of the largest, known ratepayer risks, the Board should request that the management establish the IT Department as the responsible organization for execution of meter data management (i.e., readings needed for billing or analysis). The PMO should adopt specific measures to prevent continual redesign of meter data management responsibilities once execution begins, while allowing some flexibility for unforeseen technical challenges.
18. (B) The Board should request that the management create for the IT Department a more formal committee structure, like the risk management committee, that is involved in developing the written business case for large IT projects. Care should be taken to have affected field operations or user group representation on this committee, as well as management representation for all affected business processes. When finalized, business cases proposed by the committee should be reviewed and approved by a group composed of the three most senior executives in each of the three Divisions. Due to its positive managerial culture, it is specifically intended that the Water Division be represented on this design review group with an equal vote, without regard to whether a design issue affects only the power business objectives.
19. (B) The Board should request that the management establish a subsequent step of approval by the same group of executives for the design sponsored by a simple majority of the same committee of end users and managers, and the IT Department. This will apprise senior management of key trade-offs, alternatives, and the level of

¹⁷ For the avoidance of doubt, OPA would emphasize footnote 12 and the avoidance of simplistic solutions. They cannot be adequate to meet highly varied overtime circumstances.

¹⁸ This action may involve increasing expertise, Oracle's engagement, or new hardware to ensure system responsiveness does not degrade for CSR's.

consensus and doubts before they are called upon to resolve and distinguish execution difficulties from fundamental disagreements of design. The IT Department should assess the feasibility of design with its vendor partner before this submission and approval step.

20. (B) The DWP Board should request management submit a more comprehensive productivity benchmarking assessment of the new billing system six months after the General Manager notifies the Board that the billing system has achieved a steady-state. This report would be prior to monthly billing, smart grid plans, or substantive changes outside the boundaries (in the General Manager's sole opinion) of planned functionality for September 2013. Concerns about additional functionality still unaccomplished at that time should be documented. Benchmarking should compare the prior operations and other utilities with the same core software.
21. (B) The Board should request that the CAO and Personnel Department review, report, and provide documentation concerning the total amount the DWP pays for Personnel Department support, and the level of objective activity (e.g., number of exams, number of hires) that results compared to the same activity measures and total funding support of other City departments, including the Police and Fire Departments.
22. (B) The Board should request that management establish an enterprise-wide risk management committee, and establish the existing risk management committee, which supervises commodity hedging, as a sub-committee.
23. (B) The DWP Board should ask management to take all possible steps to bring the amount of CSR time earned in the regular payroll code (CE10) up to the firm and customer service bureau average. Some steps may require changes to the MOU at a future time. Until then, efforts should involve the improved measurement and management of attendance.

After a reasonable time to make any changes, if these goals for timely hiring and procurement cannot be achieved then OPA recommends that the City Council and Mayor consider more comprehensive changes, including but not limited to creating a more agile civil service system within the DWP that completely substitutes for Personnel Department processes, and evaluating more broadly some alternative governance structures for the utility operations.

VII. ATTACHMENTS

A. Glossary

CCB	Customer Care & Billing, the new billing system
CIS	Customer Information System, the old billing system
CISCON	CIS Conversion, from the old to the new billing system
CSR	Customer Service Representatives
DWP	The City of Los Angeles' Department of Water & Power
FYE	Fiscal Year Ending (e.g., FYE'14 is July 1, 2013 to June 30, 2014)
IEA	Industrial Economic & Administrative Survey
IBEW 18	DWP's largest union
IT	Information Technology
LOA	Letter of Agreement, union consent to outsource
MEA	Management Employee Association
MOU	Memorandum of Understanding, agreements between the City of Los Angeles and unions
NOC	Notice of Compliance, union agreement that LOA terms are met
OPA	Office of Public Accountability/Ratepayer Advocate
PMO	Project or Program Management Office In this report OPA uses PMO for Program Management Office, as the CISCON Project had many sub-projects and interfaces to manage, like a larger program of multiple, coordinated projects.
PRP/PSRP	Power Reliability Program/Power System Reliability Program
PWC	Pricewaterhouse Coopers, LLC

B. Total Power & Water Accounts Receivable and Unbilled & Otherwise Accrued

Power \$ in millions	audited	audited	audited
	2011-2012	2012-2013	2013-2014
A/R	353	398	402
Unbilled & Accrued	173	176	175
Combined	526	574	577
Water \$ in millions	audited	audited	audited
	2011-2012	2012-2013	2013-2014
A/R	97	106	106
Unbilled & Accrued	69	79	88
Combined	166	184	194
Power & Water	audited	audited	audited
	2011-2012	2012-2013	2013-2014
A/R Only	450	504	508
Unbilled & Accrued	242	254	263
Combined	692	758	771
Net Allowance for losses	audited	audited	audited
	2011-2012	2012-2013	2013-2014
Power	20	19	90
Water	10	11	33
Total	30	29	123

C. Evaluation of Customer Service Hours: Supporting Material On Internal Costs

Total	All Customer Service Unit 17			FYE 2010	FYE 2011	FYE 2012	FYE 2013	FYE 2014
REG hrs		1		1,841,264	1,807,639	1,781,092	1,732,278	1,645,997
REG hrs attrition		2			-2%	-1%	-3%	-5%
REG hrs attrition		3			(33,624)	(26,548)	(48,813)	(86,281)
Staff level		4		1,243	1,217	1,192	1,131	1,173
Staff attrition		5			-2%	-2%	-5%	4%
REG per person	line 1/4	6		1,481	1,485	1,494	1,532	1,403
REG per person change prior year		7			0%	1%	3%	-8%
REG hrs per week		8		40	40	40	40	40
# weeks (effective REG weeks)	line 6/8	9		37	37	37	38	35
total # weeks		10		53	53	53	53	53
REG hours ratio annual	line 9/10	11		70%	70%	70%	72%	66%
OT hrs		12		96,182	114,547	130,418	166,399	187,667
OT hrs change prior year		13			19%	14%	28%	13%
OT hrs change prior year		14			18,365	15,871	35,981	21,268
OT per person		15		77	94	109	147	160
OT per person change prior year		16			22%	16%	34%	9%
OT/REG		17		5%	6%	7%	10%	11%
Net Hours (+Increase in OT - Decrease in REG)	line 3+14	18			(15,259)	(10,677)	(12,832)	(65,013)
	Key Points							
					Total loss of 65,000 staff hours in project's first year (line 18)			
					Stable regular hours up to launch (line 11)			
					Severe REG attrition overall (line 3)			

Meter Readers				FYE 2010	FYE 2011	FYE 2012	FYE 2013	FYE 2014
REG hrs		1		326,012	318,554	316,020	312,214	313,151
REG hrs attrition		2			-2%	-1%	-1%	0%
REG hrs attrition		3			(7,458)	(2,535)	(3,806)	937
Staff level		4		193	187	189	183	193
Staff attrition		5			-3%	1%	-3%	5%
REG per person	line 1/4	6		1,689	1,703	1,672	1,706	1,623
REG per person change prior year		7			1%	-2%	2%	-5%
REG hrs per week		8		40	40	40	40	40
# weeks (effective REG weeks)	line 6/8	9		42	43	42	43	41
total # weeks		10		53	53	53	53	53
REG hours ratio annual	line 9/10	11		80%	80%	79%	80%	77%
OT hrs		12		31,902	40,656	45,403	37,165	4,965
OT hrs change prior year		13			27%	12%	-18%	-87%
OT hrs change prior year		14			8,753	4,747	(8,238)	(32,200)
OT per person		15		165	217	240	203	26
OT per person change prior year		16			32%	10%	-15%	-87%
OT/REG		17		10%	13%	14%	12%	2%
Net Hours (Increase in OT - Decrease in REG)	line 3+14	18			1,295	2,213	(12,044)	(31,263)
	Key Points		Total loss of 31,200 staff hours (line 18)					
			REG hours stable (line 11)					
			Dramatic drop in OT hours (line 12)					

CIS Project Team				FYE 2010	FYE 2011	FYE 2012	FYE 2013	FYE 2014
REG hrs		1		3,226	18,853	26,399	50,892	14,984
REG hrs attrition		2			484%	40%	93%	-71%
REG hrs attrition		3			15,626	7,546	24,493	(35,908)
Staff level		4		2	17	16	28	-
Staff attrition		5			750%	-6%	75%	-100%
REG per person	line 1/4	6		1,613	1,109	1,650	1,818	
REG per person change prior year		7			-31%	49%	10%	
REG hrs per week		8		40	40	40	40	40
# weeks (effective REG weeks)	line 6/8	9		40	28	41	45	-
total # weeks		10		53	53	53	53	53
REG hours ratio annual	line 9/10	11		76%	52%	78%	86%	0%
OT hrs		12		139	624	1,000	10,878	6,253
OT hrs change prior year		13			349%	60%	988%	
OT hrs change prior year		14			485	376	9,878	(4,625)
OT per person		15		69	37	62	389	
OT per person change prior year		16			-47%	70%	522%	
OT/REG		17		4%	3%	4%	21%	42%
Net Hours (Increase in OT - Decrease in REG)	line 3+14	18			16,112	7,922	34,371	(40,533)
Key Points	Total loss of 40,533 staff hours (line 18)							
	Nearly 10 weeks of OT on top of surge in REG time (lines 11, 15)							
	Small sample and not all facets of project support							

D. Budget Variance For the DWP Fiscal Years 2013-2014 (original summary page)

Los Angeles Department of Water and Power Monthly Expenditure Variance - Executive Summary Fiscal Year 2013-14 (Year to date as of June 2014 (2-6 Closing)) (\$ in thousands)						
KEY PROGRAMS SUMMARY	Approved Budget 5/24/2013	Re-Estimate (Forecast)	Year to Date as of June 2014			
			Budget	Actual	Variance (\$) Overrun/ (Underrun)	Variance (%)
POWER REVENUE FUND						
<u>Power Supply Replacement Program</u>						
CAPITAL						
1. Repowering	396,492.9	393,257.1	396,492.9	375,927.1	(20,565.8)	(5.2%)
2. Renewable Portfolio Standard	293,848.2	152,959.7	293,848.2	112,081.6	(181,766.6)	(61.9%)
3. Energy Efficiency	137,733.4	74,616.4	137,733.4	76,781.2	(60,952.2)	(44.3%)
Total CAPITAL	828,074.5	620,833.2	828,074.5	564,789.9	(263,284.6)	(31.8%)
O&M						
4. Renewable Portfolio Standard	32,476.7	36,689.2	32,476.7	28,328.7	(4,148.0)	(12.8%)
5. Renewable Energy (Fuel and Purchased Power)	339,561.0	274,279.0	339,561.0	255,731.8	(83,829.2)	(24.7%)
Total O&M	372,037.7	310,968.2	372,037.7	284,060.5	(87,977.2)	(23.6%)
Total Power Supply Replacement Program	1,200,112.2	931,801.4	1,200,112.2	848,850.4	(351,261.8)	(29.3%)
<u>Power Reliability Program</u>						
6. PRP - CAPITAL	515,987.6	405,651.9	515,987.6	416,086.4	(99,901.2)	(19.4%)
7. PRP - O&M	382,666.0	363,349.1	382,666.0	371,299.3	(11,366.7)	(3.0%)
Total Power Reliability Program	898,653.6	769,001.0	898,653.6	787,385.7	(111,267.9)	(12.4%)
WATER REVENUE FUND						
<u>Local Water Supply Program</u>						
CAPITAL						
8. Conservation, Reclamation & DSM	101,912.4	58,485.6	101,912.4	52,004.0	(49,908.4)	(49.0%)
9. Water Supply	71,648.5	33,447.0	71,648.5	28,775.5	(42,873.0)	(59.8%)
Total CAPITAL	173,560.9	91,932.6	173,560.9	80,779.5	(92,781.4)	(53.5%)
O&M						
10. Conservation, Reclamation & DSM	24,321.7	24,035.6	24,321.7	18,179.3	(6,142.4)	(25.3%)
11. Water Supply	16,867.0	14,333.7	16,867.0	13,576.0	(3,291.0)	(19.5%)
Total O&M	41,188.7	38,369.3	41,188.7	31,755.3	(9,433.4)	(22.9%)
Total Local Water Supply Program	214,749.6	130,301.9	214,749.6	112,534.8	(102,214.8)	(47.6%)
<u>Safe Drinking Water Program</u>						
12. Safe Drinking Water Program - CAPITAL	232,700.9	270,495.0	232,700.9	269,149.9	36,449.0	15.7%
<u>Water Infrastructure Program</u>						
13. Water Infrastructure Program - CAPITAL	194,374.3	217,968.0	194,374.3	197,344.6	2,970.3	1.5%
14. Water Infrastructure Program - O&M	151,890.2	145,418.1	151,890.2	155,363.8	3,473.6	2.3%
Total Water Infrastructure Program	346,264.5	363,386.1	346,264.5	352,708.4	6,443.9	1.9%
<u>Regulatory Compliance - Owens Valley</u>						
15. Owens Valley - CAPITAL	123,208.7	81,222.8	123,208.7	83,594.5	(39,614.2)	(32.2%)
16. Owens Valley - O&M	36,325.6	34,518.9	36,325.6	50,297.4	13,971.8	38.5%
Total Regulatory Compliance - Owens Valley	159,534.3	115,741.7	159,534.3	133,891.9	(25,642.4)	(16.1%)