OFFICE OF THE CITY ATTORNEY CHARLES PARKIN, City Attorney 333 West Ocean Boulevard, 11th Floor Long Beach. CA 90802-4664

FOURTH AMENDMENT TO AGREEMENT NO. 32941

THIS FOURTH AMENDMENT TO AGREEMENT NO. 32941 is made and entered, in duplicate, as of February 22, 2017 for reference purposes only, pursuant to a minute order adopted by the City Council of the City of Long Beach at its meeting on February 7, 2017 by and between ERNST & YOUNG LLP, a limited liability partnership, located at 200 Plaza Drive, Secaucus, New Jersey 07094, ("Consultant"), and the CITY OF LONG BEACH, a municipal corporation ("City").

WHEREAS, City and Consultant (the "Parties") entered into Agreement No. 32941 on December 21, 2012 (the "Agreement"), wherein Consultant agreed to provide maintenance, operational support, end user support, enhancements, and upgrades for the Oracle based CIS Solution for utilities providing gas, water, wastewater, and solid waste services to the City; and

WHEREAS, the Parties entered into a First Amendment to the Agreement to add an additional statement of work and increase the not to exceed amount by \$330,000 for the additional services; and

WHEREAS, the Parties entered into a Second Amendment to the Agreement to add an additional statement of work and increase the not to exceed amount by \$105,120 for the additional services; and

WHEREAS, the Parties entered into a Third Amendment to the Agreement to add an additional statement of work and increase the not to exceed amount by \$585,000 for the additional services; and

WHEREAS, the Parties now desire to administratively correct the Third Amendment to reflect the \$585,000 as an annual amount; extend the term an additional nine (9) months ending on November 30, 2017; adopt a revised scope of work as set forth in Exhibit "A-3" ("Managed Services"), attached hereto and incorporated herein by this reference, and add \$1,242,477 to cover the extended term;

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NOW, THEREFORE, in consideration of the mutual terms and conditions herein, the parties agree as follows:

- 1. The term of Agreement 32941, for all services, is hereby extended until November 30, 2017 (the "Extended Term"). A further extension to the Agreement may thereafter be exercised by the City in its discretion for a term not to extend beyond August 18, 2019.
- 2. During the Extended Term, City shall pay Consultant an amount not to exceed One Million Two Hundred Forty-Two Thousand Four Hundred Seventy-Seven Dollars (\$1,242,477).
- Section 2 of the Third Amendment to Agreement No. 32941 (the "Third 3. Amendment") is amended and restated as follows: "City shall pay Consultant for the Additional Services in accordance with the terms and conditions of the Agreement in an amount not to exceed Five Hundred Eighty-Five Thousand Dollars (\$585,000) annually for a period of two (2) years, with a further extension which may be exercised in the City's discretion for a term not to extend beyond August 18, 2019." During the term of the Agreement, or any extension to the Agreement, any services provided under the scope of services attached as Exhibit "A-2" to the Third Amendment ("As-Needed Services") shall be charged at the rates set forth in the Third Amendment.
- Except as expressly modified herein, all of the terms and conditions contained in Agreement No. 32941 are ratified and confirmed and shall remain in full force and effect.

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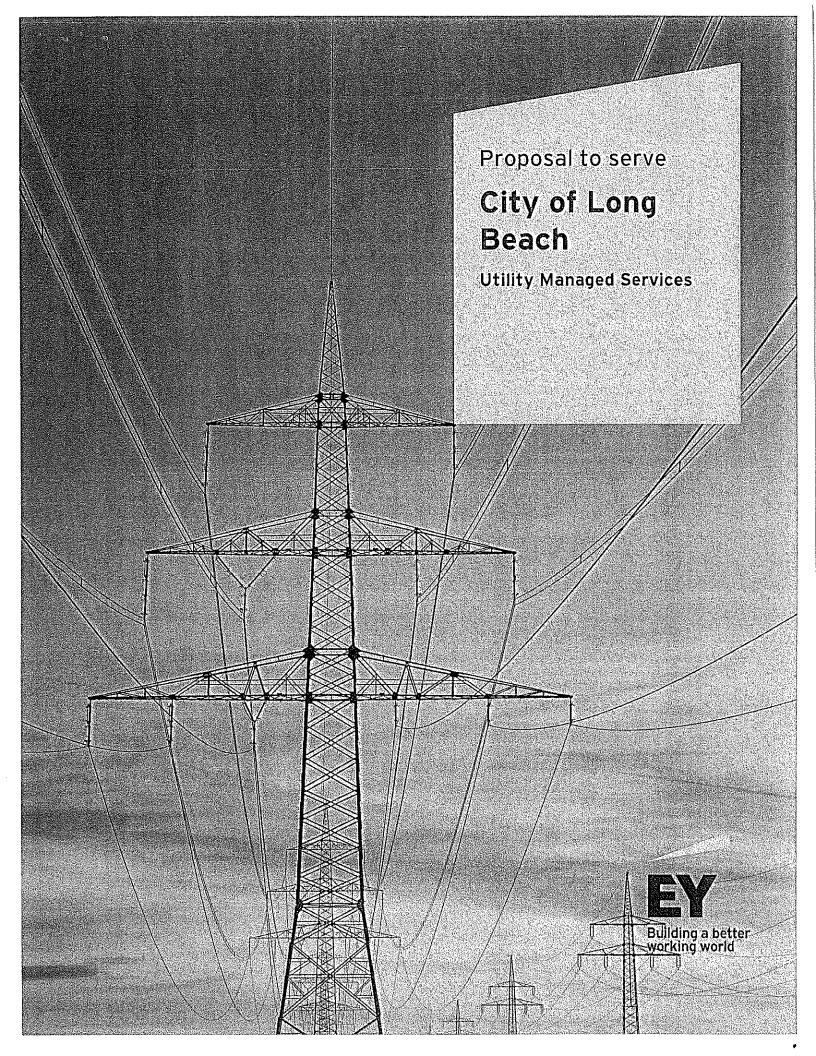
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28 /// executed with all formalities required by law as of the date first stated above. ERNST & YOUNG LLP, a limited liability CITY OF LONG BEACH, a municipal EXECUTED PURSUANT TO SECTION 301 OF "City Assistant City Manager THE CITY CHARTER. This Fourth Amendment to Agreement No. 32941 is approved as to form on CHARLES PARKIN, City Attorney Deputy

EXHIBIT "A-3"

Scope of Work (Managed Services)





Ernst & Young LLP Suite 1000 55 Ivan Allen Jr. Boulevard Atlanta, GA 30308 Tel: +1 404 874 8300 Fax: +1 404 817 5589

ev.com

Bryan Sastokas 333 W Ocean Blvd, 12th Floor Long Beach, CA 90802 December 30, 2016

Dear Mr. Sastokas,

On behalf of Ernst & Young LLP (EY) and our proposed team to serve, EY would like to thank you for the opportunity to present our proposal and qualifications for providing managed services for City of Long Beach (CLB) Oracle Customer Care & Billing (CC&B) and Mobile Workforce Management (MWM) applications. In our three year managed services partnership we have reached a high level of cooperation and performance with your team. EY hopes to have the opportunity to work with you moving forward.

This proposal provides EY with the opportunity to articulate our plan, strengthened through teaming with CLB, and align our service delivery model to your expectations. EY has received information about your expectations from numerous CLB stakeholders. We believe we are uniquely qualified to provide the highest quality services to CLB.

EY has led more than 25 Oracle enterprise application implementations, including taking eight North American utilities live in the last 36 months, and is providing managed services at several utilities post implementation. Through the course of this experience, EY has developed a strong understanding of how to deploy these enterprise applications to significantly improve a utility's operational efficiency, while enhancing the overall customer experience across all touch points. EY believes that this knowledge, along with the following attributes of our proposed service delivery model, differentiates us from other firms and makes EY the best choice to partner with CLB to support your enterprise applications:

- A proposed team that consists of the best and most experienced Oracle Utilities consultants available in the industry, the majority of which were involved in the aforementioned enterprise application implementations.
- A proven service delivery model for managed services that will drive operational efficiency, mitigate risk, and keep CLB on the enterprise applications' roadmap within their respective footprints.
- A comprehensive support approach that will prepare CLB's business to fully leverage the product capabilities while minimizing operational disruption.
- A full complement of pre-developed and pre-configured components to de-risk the support of complex functionality and integration and deliver the desired business outcomes.

The value of EY to CLB is that, as a firm, EY brings the breadth and depth of expertise across both of the applications you have implemented. It's this breadth of knowledge that will allow CLB to stay within the Oracle footprint along the Oracle roadmap and utilize these applications in the best possible way.

Thank you again for providing EY the opportunity to propose a managed services solution for you. EY views supporting the CLB applications as essential to your business, and we are committed to your success. Have reviewed your expectations in great detail, EY feels strongly that we have the right team, the right service delivery model, and the right organizational capabilities to make that success happen working together with CLB. EY looks forward to demonstrating our capabilities.

Sincerely,

Chad Hamilton Engagement Partner +1 4044 229 9401

chad.hamilton@ev.com

Executive Summary

EY has implemented CLB's Oracle applications more than 50 times and provided related managed services for 19 North American utilities ranging from on-demand staff augmentation to full, service level-driven managed services arrangements. Over the course of this experience we have learned what needs to go right in meeting the unique support requirements these applications, and how to work with our utility clients to provide the availability, performance and the upgrades/ enhancements necessary to maximize the value of their investments in these technologies.

Relating this experience to your objectives for this initiative, we base our proposal to CLB on the following three key themes:



- Safe Hands EY has the depth of knowledge in CLB's application portfolio and operations, utility industry experience, and managed services delivery capability to safely support your business.
- Improve EY brings to CLB a full complement of service management processes, templates, controls and tools to quickly solve existing system issues, improve upon historic service levels, and optimize/align the system to the business processes.
- Fransform EY brings a full set of capabilities built around the needs of the utility customer care organizations to enable CLB to take full advantage of the applications' capabilities.

Safe Hands

It is important that CLB knows that we have been there and done that. The team we propose to work with CLB is among the industries most experienced in supporting these specific Oracle applications and their integration into utilities' broader IT ecosystem. Whether it is providing long-term support for one of our EY-led Oracle Utilities implementations or supporting systems implemented by other firms, we have a proven, structured and risk-mitigated approach to standing up our services that includes:

- Continuation of a stable and reliable support function for CLB billing and field services applications.
- Execution of steady and proven governance process to manage and execute on the work.
- Provide assistance for additional change with resources that understand your business processes and technical environment better than any other company.

Improve

While we offer competitive rates and economies of scale in our Global Delivery Services (GDS), EY's Managed Services offering is not aimed purely at cost take out. The reality is that clients engage us because there is a challenge due to a lack of internal organizational capability or design decisions made during implementation that negatively impact system performance and their customer care organizations. At the City of Cleveland the application availability was poor and batch operations were unstable. At AGLR, the organization simply did not have the CC&B expertise to meet the demand place in it by a CIS consolidation.

The definition of "improve" can be different for each client, but depending on the operating model we ultimately put in place with CLB, improvement may come from the following areas:

- Service Delivery Model: We would bring an Oracle-specific, industrialized delivery model with proven tools, methods, and processes to provide structure and discipline to the support organization. Where CLB has gaps or deficiencies in your current support model, we bring CMMI/ISO assessed approaches for key such as demand management, change management and service reporting. On the development side, this includes Oracle deliverable templates, estimating models, and project management practices.
- Knowledge Transfer: We will have a formal knowledge transfer program in place to mentor and increase the proficiency of CLB's staff in supporting these applications. The goal of this program to increase your staff's self-sufficiency to support the applications and to better leverage their capabilities to support your business.
- Global Delivery Services: EY will provide CLB access to the economies of scale present in our Global Delivery Services to rapidly and cost effectively to ramp the team size up and down to match the demands of your business. The Global Delivery Services includes our Manila center dedicated to supporting the Oracle Utilities suite of products.

Transform

This is a time of tremendous change for the utility industry as it copes with an evolving regulatory environment and a fundamental redefining of customer expectations for service. These applications sit at the nexus of this change and CLB's ability to evolve them is critical to your continued success. Given the breadth and depth of our firm's Power & Utilities (P&U) practice, EY is uniquely qualified to help you with this through:

- Accessing our proprietary Power & Utilities Maturity Model and Architecture (PUMMA) to provide CLB greater insight into leading utility industry practices, and how we can together optimize your business processes to improve performance against key performance indicators and fully exploit your technology investments.
- Engaging our Customer Experience team to set strategies for leveraging the capabilities of these systems to explore new and effective ways to manage the customer relationship, maintain high levels of customer satisfaction and standardizing the customer experience across all touch-points.
- Fully leveraging our global Oracle practice to import lessons from other clients on how to best support and use these applications, and determine how to best plan for and deploy new functionality in future releases.

EY is excited to have the opportunity to work with CLB to craft a support model for these applications that enables your success. We hope this commitment to your success is self-evident through the quality of our proposed team and the thoughtfulness of our proposal. Our lessons learned on similar Managed Services engagements with clients such as the cities of Cleveland and Long Beach confirm that this effort's success will be determined by the caliber of the team, the ability to focus on the right things is service delivery (key processes and high risk areas), and our combined approach to managing the change CLB faces. EY has the people, the delivery approach and the experience with your applications to team with you on this effort and we look forward to working with your team as this process moves forward.

Statement of Qualifications

Firm overview

EY employs 230,000 employees worldwide. Approximately 17,500 professionals serve our clients in the US, with more than 3,000 professionals located in our Southeast Region.

EY is a global leader in professional services providing Assurance, Advisory, Tax and Transaction Advisory Services. The roots of the firm date back to more than a century of service. Our offices are based in 728 offices in 150 countries, organized into 28 Regions and four Areas. Firm awards and accolades for 2016 include: FORTUNE magazine's "100 Best Companies to Work For ®"; NAFE Top Companies for Executive Women; Diversity, Inc. magazine's Top 50 Companies for Diversity; and, Universum's World's Most Attractive Employer For more award information or other detailed information about EY, visit our website at www.ey.com.

EY Engagement Team Qualifications

EY's P&U practice is dedicated to helping our clients maximize the effectiveness of their finance and customer care organization while maintaining a strong focus on delivering consistent, positive interactions at all points in the customer life cycle. As part of our broader Customer practice, EY's Oracle Utilities Group is a key enabler to this mission through combining utility customer care knowledge, deep CC&B and MWM skills and a track record of supporting complex, integrated solutions. Our experience includes:

- Supporting more than 150 utilities on over 200 utility application related projects.
- Nine customer "go-lives" on CC&B and MWM in the last 36 months.
- Provided post go-live CC&B support to over 20 North American utilities using both North America-based consultants and offshore Global Delivery Services team in the Philippines and India.
- Recent completion of CC&B 2.4 upgrade for City of Cleveland
- Recent completed CC&B implementation for Cal Water
- Recent completion of CC&B 2.5 upgrade for CLB
- Served as the systems integrator for Burbank Water and Power and Avista who both won CIS Week Expanding Excellence Awards for Best CIS Implementation.

Over the course of our experience we have developed a robust managed services solution that enables our clients to derive the most value from their application system investment. The foundation of this capability is a proven support methodology, deep Oracle product expertise, pre-built configuration and development content, a vast functional and performance testing library, and an award winning end user education and reference solution. This alone, however, cannot provide a world class support solution. Rather it is our unique understanding of the utility business and our consulting focus on improving business outcomes that differentiate us in the market. The result is a unique support offering to CLB that reduces effort, cost and risk while improving the quality and efficiency of CLB's operations. Our capability is buttressed by:

- Preconfigured solutions within CC&B for the most common customer service transactions based on industry leading practices to baseline CLB transactions
- A library of enhancements developed to address common functional requirement gaps in CC&B
- A Test Management Framework (TMF) that contains reusable methods, more than 600 foundation test scripts to leverage for functional testing
- A regression test set and an adaptable performance testing solution for accelerated release testing

EY Power & Utilities

- EY serves 9 of the top 10 utility companies and 80% of the Global Fortune 500 utilities
- 4,000 P&U focused professionals comprised of the top talent from across the industry
- Industry leading Power and Utility Maturity Model & Architecture (RUMMA) process, risk and control model

- A Key Performance Metric (KPM) framework to objectively measure support performance and business improvement
- Pre-developed, customizable Oracle CC&B classroom and web-based training courses
- CC&B specific real-time information wiki called the Online Performance Support System (OPSS) that provides Client Managed Services Qualifications:

The following is a sample list of the utilities where we have provided or currently provide managed services:

Utility name	Number of customers Services supported
Atlanta Gas Light Resources (NICOR)	4,000,000 Gas
City of Albuquerque	247,000 Water, waste water
Cedar Falls Utilities	67,000 Electric, gas, water, cable TV, internet
City of Cleveland	450,000 Water
COBB EMC	359,000 Electric, gas
El Paso Electric	347,000 Electric, gas
Grant PUD	45,000 Electric
Honolulu Board of Water Supply	200,000 Water
Lafayette Utilities System	60,000 Electric, water, waste water
Lee County Electric Cooperative	200,000 Electric
City of Long Beach	170,000 Gas, water, waste water, refuse
Montana-Dakota Utilities	800,000 Gas, electric
Omaha Public Power District	400,000 Electric
City of Tempe	42,000 Water, waste water
Tucson Electric Power	450,000 Electric

Why EY?

What EY brings	Value to Long Beach
Utility Business Process Perspective	Drives business results
Deep Product Experience	Optimized Product Solutions
Proven Support Model	Reliable and Effective Operations Support
Significant Implementation Experience	Organized and Efficient Solution Development
Development, Testing, and Training Tools	Repeatable Quality Results
Cost effective solution	High Value Solution
Consistent Product Updates	Vendor Supported Applications
Consulting and Improvement Focus	Improved application and business performance
Additional EY Expertise	Greater Value Services

Utility Business Process Perspective - Our team views support through a business lens to make decisions that translate into organizational results. When making decisions about support, we concentrate on the best cost effective solution for the business. In some cases, this leads to business process changes rather than customization of the application.

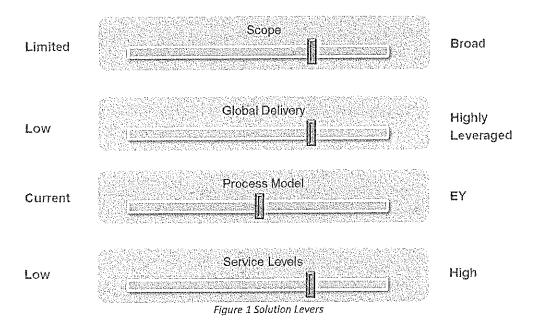
- Deep Product Experience EY technical and functional architects average 10+ years with the Oracle EBS and Utility applications,
- Proven Support Model EY current supports the Oracle EBS and Utility applications for several clients in a post-production, managed services environment. Some clients we have been supporting for more than 5 years.
- Significant Implementation Experience In addition to managed services experience we also have implemented all the supported products multiple times and can bring that experience to bear on solution development work.
- Development, Testing, and Training Tools EY brings numerous support and development tools and accelerators to each managed services engagement to more efficiently deliver service
- Cost effective solution Our support model is resource optimized to leverage offsite and offshore teams while key resources engage clients on site to deliver high quality, cost effective support
- Consistent Product Updates EY's support model incorporates annual product service pack or release upgrades into our service to keep the product current and supported by the software vendor.
- Consulting and Improvement Focus In our managed services solution, simply managing the operations status quo is not enough. We believe that consistent, incremental improvements are critical to the long term success of the applications and the organization. You're either getting better or you are getting worse as an organization, you're never staying the same. Our solution will make you better.
- Additional EY Expertise We can bring the full capabilities of the firm to CLB with expertise in related areas to strengthen CLB's overall business. Subject Matter Resources (SMR) in EY's various practices like Internal Controls, CyberSecurity, Governmental accounting, Customer Services, and Digital can provide a much fuller set of solutions.

Proposed Solution

Our Managed Services engagements run the continuum from on-demand, staff augmentation to full service leveldriven "outsourcing" delivery models. Over the course of this experience, we have learned the right support model for our utility clients largely depends on:

- The organization's objectives for the initiative and overall IT strategy
- The maturity and capability of the utility's IT organization
- Where the organization chooses to focus their limited internal resources ("lights on" maintenance versus higher value project activity.)

As we engage with CLB to establish a new support model, we find it helpful to view the potential managed services engagement in the context of a series of solution levers we can together manipulate to design the right solution. We base the solution presented in this proposal on an initial view of how we would set the levers depicted below, but ideally we will collaborate with you design a solution that best reflects your objectives, capabilities and constraints.



- Scope: The general rule of thumb is the more scope we include in the delivery model, the more opportunity there is to leverage economies of scale and drive improvement in organization-wide KPIs.
- Global Delivery: We recognize that many utilities have constraints in their ability to leverage offshore resources. Absent of these constraints, we believe the most effective support model for these applications fully leverages global delivery to lower costs, provide flexibility to scale the team as needed and to provide follow-the-sun support. Accordingly, we plan to leverage our Oracle delivery center in Manila to perform low-touch support activities and development. Our proposed solution includes a split between onshore and offshore staff.
- Process Model: The decision point here is whose processes do we use to manage work through the delivery organization? EY brings to CLB a full complement that forms the basis of our commitment to industry standards such as CMMi and ITIL. Depending on the maturity and effectiveness of CLB's existing processes (i.e. Problem Management, Change Control, Service Introduction, etc.), we can either leverage your existing processes or introduce ours. Our proposed solution assumes that CLB has some areas that currently function

well and some that could benefit from improvement. We will identify and document the agreed process model during service transition.

Service Levels: Every IT organization strives to delivery high levels of service to its business users. The actual service levels it adopts however must reflect the business' use of the system and a weighing of the costs versus benefits of meeting certain metrics. For example, CC&B is often configured as a highly available system with correspondingly high service levels for system availability, batch window, performance, etc. Translating this to our solution, EY is committed to meeting CLB's existing service levels tied to our scope of services. If there are new metrics you would like to measure, we will help you define, measure and report upon them.

Application Support Scope

The Services Scope consists of four (4) service categories that cover all aspects of support CC&B and MWM. Not all of these services are being proposed for CLB, but we felt it is important to address the full scope of required support. Then we can address what is in each party's scope (i.e. CLB and EY).

Technical Infrastructure

Technical Infrastructure involves supporting and maintaining the technical architecture components required to run the OUP application. This is often done for the both the production and non-production environment instances for the application at a client. This typically does NOT include supporting similar components for the entire client enterprise or individual applications outside of the application scope for the engagement. Technical Infrastructure activities include:

- Cloud Provisioning and Management Facilitating the procurement, architecting, and implementation of computing power from a cloud provider and the ongoing management of those systems for support of the in scope applications.
- Application Server / Storage Management Responsible for server and/or storage maintenance and issue analysis for servers on which each supported application's technical component runs.
- Application Database Management Responsible for maintenance and issue analysis for the database instance on which each supported application's database runs.
- Application Architecture Responsible for maintenance and issue analysis for the individual architecture components required to run each supported application. This would include the application servers, web services, and connection points.
- Environment Management Build, copy, maintain, and analyze issues for the multiple environment instances of each supported application required by the client. This would include production, test, and development instances of the application.
- Code Management Track, store, and migrate versions of the supported application code in the various environments (Productions, Test, and Development). This includes base product, customized product, integration, and report code.

If a client is not utilizing a cloud based solution, they utilize in house data center infrastructure. Typically these services are not performed by EY as they are performed at an enterprise, not application level. EY, however, does possess those skills and can perform them as requested. For this proposal we consider these services out of scope. These services include:

- Hardware Hosting/Ownership Providing hardware to clients to run their applications. EY would utilize its Azure cloud based service to provide this capability.
- Network Maintaining, supporting, and analyzing issues with the network infrastructure used to transfer data between all computing devices for a client.
- Physical and Enterprise Security Monitoring the security of the client computing infrastructure for threats.
- End Use Device Support Maintaining end user computing devices including desktop computers, laptop computers, tablets, and phones.
- Enterprise Server and Database Management Support all of a client's servers operations and databases.

Solution Development

Solution Development encompasses all aspects of creating a new or updated function solution within the existing live supported application. This could include defect corrections, minor application enhancements, or large project initiatives and may involve business process, configuration, application code, integration and reporting components. Solution Development activities include:

- Application/Business Process Alignment analyzing the ability of the application to support client business processes and identifying changes to the application and/or business process to enable the application to function more effectively for the organization.
- Defect Resolution Making changes to the configuration, application code, integration code, or reporting code to correct a defect in the application solution. This can include all aspects of the software development lifecycle including management, requirement analysis, design, code development, testing, organizational change management, training, and deployment. All defect resolution work is covered by a warranty to address any additional defects in the delivered solution.
- Enhancements and Projects Making changes to the configuration, application code, integration code, or reporting code to add minor (enhancement) or significant (project) functionality in the application solution. This can include all aspects of the software development lifecycle including management, requirement analysis, design, code development, testing, organizational change management, training, and deployment. All enhancement and project work is covered by a warranty to address any defects in the delivered solution.
- Configuration Support Design and development of modifications to the application configuration to support defect resolution, enhancements, and/or projects. Configuration is defined as values and settings for the application that are stored within the application database or configuration files. It is not considered code although several types of configuration within the identified supported applications requires very skilled and knowledgeable resources to complete. These are typically maintained through data entry in the application or via scripts to update database tables or lists. All configuration support work is covered by a warranty to address any defects in the delivered solution.
- Code (Product Custom, Integration, Reporting) Design and development of any type of code used by the application including product custom code, integration code, or reporting code. This is typically written in a development language or within a development framework.
- For Testing Support provide testing content, tools, and processes to assist with execution of testing of defects and enhancements and application regression testing.
- Education and Adoption Support Creation and maintenance of materials to educate the end users on how to perform their jobs using the application. This is more extensive than simply instruction on how to key data into the application. It is business process based and can include policies and procedures for the client using sophisticated solutions to empower end users.
- Release Management Design and execution of an organized, repeatable process to deploy application solutions to the production application environment. This is typically done on a set schedule on a monthly or quarterly basis based on CLB's needs.

System Operations

Systems Operations involves supporting and executing the functional and technical application processes that are running in a supported application production instance. System Operations activities include:

- Enterprise process scheduling Design, creation, execution and monitoring of scheduling of all information technology processes for the organization. While not typically performed by EY at the enterprise level, EY can perform these services if needed by the client. This is not in scope for this proposal.
- Application process scheduling Design, creation, execution and monitoring of scheduling of the supported application related processes for the organization. As part of this function a fully documented batch schedule of processes is maintained and daily log of batch processing is recorded along with any batch processing errors and associated resolutions. This is not in scope for this proposal.

- Operational Configuration Periodic modifications to application configuration to support ongoing operations rather than correct or defect or provide additional application functionality. While some operational configuration can be performed by end users, certain components may require additional expertise due to the complexity or the method of modification. Examples of this include changing bill determinant values, annual bill cycles, field crew changes, and vendor bank information.
- Product Processing Management Monitoring, execution, and reconciliation of base application processes to verify accurate processing. This is not in scope for this proposal.
- Integration Processing Management Monitoring, execution, and reconciliation of recurring integration processes with other internal and external applications to verify accurate processing. This is not in scope for this proposal.
- Reporting Processing Management Monitoring, execution, and reconciliation of recurring reporting processes to verify accurate processing. This is not in scope for this proposal.
- Exception Management Planning Development of the process to manage and address application exceptions that occur in the normal course of operations. Examples include journal errors, appointment scheduling issues, bill exceptions, meter read errors, or misapplication of payments.
- Defect Analysis Analysis of application processing errors that occur. This includes root cause analysis, business impact assessment, establishment of work arounds, and resolution recommendations.

Application Updates

Application updates are the deployment of application vendor (e.g. Oracle) supplied base code updates to the supported products. This process is critical to the overall health and maintenance of an application. Unfortunately this is often neglected by many organizations. EY prioritizes applying application updates in a timely, efficient manner.

- Patch Application application of individual or a group of application defect fixes supplied by the application vendor to the base product to correct application errors. These patches are typically applied on as needed basis and deployed to production as part of the Release Management process although in some cases can be applied on an ad hoc basis if required.
- Service Pack Application Application vendors often create service packs to base code to address the identified defects since the last version upgrade or service pack. Occasionally minor enhancements are included. EY will apply the latest service pack six months after release on an annual basis.
- Version Upgrades Application vendors update their products and release new versions on a continual basis. Staying current with the release guarantees vendor support of the application and enables CLB to take advantage of the latest functional and technical features of the application. EY recommends applying the latest version upgrade 6 12 months after release every 2 3 years.
- Regression Testing testing of the existing application functions after a change to the application to validate the new changes did not create a problem with any application functions. Regression testing is to be performed for all three types of application upgrades as well as any custom solution development prior to deploying to production. It is particularly important for Application Updates as it will be the only testing to be performed. EY has developed a standardized, low cost approach to regression testing that includes automation of some aspects of testing. Regression testing includes a level of performance testing to verify the application batch and online processes are functioning. This provides a known, efficient, repeatable process to validate the application is working as expected. Our Proposed Operating Model.

Our Proposed Scope of Services

For our proposed scope of services for each service, EY will have one of three levels of responsibility: Full, Shared, or None. In a few cases, the service may not be applicable to CLB in which case it will be marked N/A. This is

based on the proposed resources for a fixed monthly fee. Additional out of scope services can be performed by EY per an agreement using the included rate card for resources.

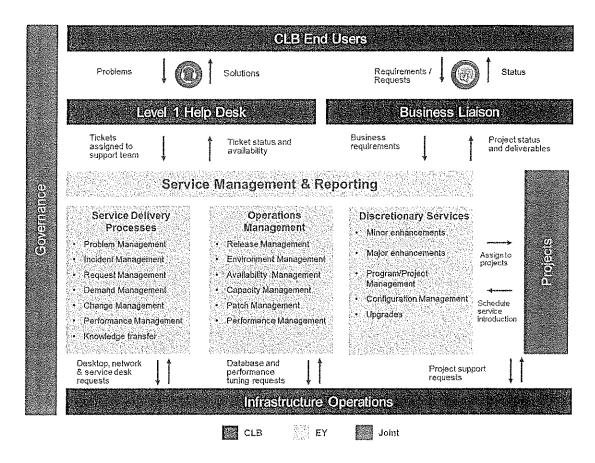
Service Service	EY Scope	Comments
Technical Infrastructure	production and to design and the control of the c	GO STATE OF THE ST
Cloud Provisioning and Management	N/A	The state of the s
Application Server / Storage Management	None	
Application Database Management	None	
Application Architecture	Full	
Environment Management	Full	
Code Release Management	Full	
Hardware Hosting/Ownership	None	
Network	None	
Physical and Enterprise Security	None	
End Use Device Support	None	
Enterprise Server and Database Management	None	
Solution Development		
Application/Business Process Alignment	Full	
Defect Resolution	Full	Excludes testing which is a CLB responsibility
Enhancements and Projects	Full	Excludes testing which is a CLB responsibility
Configuration Support	Shared	
Code (Product Custom, Integration, Reporting)	Full	
Testing Support	Shared	Can provide testing support per priorities
Education and Adoption Support	None	
Release Management	Full	
Systems Operations		
Enterprise process scheduling	None	
Application process scheduling	Shared	
Operational Configuration	Shared	
Application Processing Management	Shared	CLB executes processes. EY contacted for support and issue resolution.
Integration Processing Management	Shared	CLB executes processes. EY contacted for support and Issue resolution.
Reporting Processing Management	Shared	CLB executes processes. EY contacted for support and issue resolution.
Exception Management Planning	Shared	CLB executes processes. EY contacted for support and issue resolution.
Defect Analysis	Full	
Application Updates		

Service	EY Scope	Comments
Patch Application	Full	Excludes testing which is a CLB responsibility
Service Pack Application	N/A	
Version Upgrades	N/A	
Regression Testing	Shared	

Operating Model

The graphic below provides an initial view of this operating model. It focuses on aligning with your business to support a centralized operating model and standardized processes, while streamlining IT activities. We would use a combination of resources, providing services from our Oracle center in Manila in coordination with our onsite team and your existing organization. The success of this operating model will depend upon the following:

- Clearly defined roles and responsibilities: CLB and EY would need to work closely to define roles and responsibilities and procedures that clearly define how work gets completed (e.g., handoffs, on call support and escalations). If the roles are clear, the teams can operate with clear accountabilities and performance expectations.
- Provide common work intake process: It is critical that work enters the delivery model in a consistent and documented manner. We recognize that many organizations have informal channels to IT, but we would strongly recommend CLB move all support requests through a common Level 1 help desk and ticket management system. The EY team will use this system to receive requests and report status.
- Leverage common processes, methods, and tools: CLB desires to move to a common set of processes and tools, which is a consistent goal of many of our clients. Our most successful engagements adopt our processes and tools as much as possible to leverage the investment that has been made and the immediate benefit that results.



Under this operating model, EY will provide the day-to-day end user support and application maintenance for all or some combination of CLB's application packages including but not limited to:

- Break/fix activities (Level 2 Help Desk support)
- Answering user application questions
- Responding to ad-hoc reporting requests
- Performance monitoring and tuning
- Monitoring application availability and batch processing (e.g., 24x7 on-call activities)
- Capacity monitoring
- Preventive maintenance
- Data validation
- Coordination of vendor supplied patches and upgrades
- Minor enhancements
- Major enhancements and projects (discretionary)
- Working with CLB to prioritize requests and communicate status
- Measuring performance against and reporting of various metrics in service level agreements and key performance metrics

The basis for all work performed by EY for CLB is a Service Request (SR). A SR is defined as a request by any authorized stakeholder to perform one of five types of tasks. SR's are used to define, track, and measure work performed by EY for the engagement.

EY categorizes its SR's into one of five types:

- Operations work performed on a periodic or as needed basis to keep the application running as designed.
- User Support work performed to educate users on the use of the application and look into items submitted by users for investigation.
- Defects work performed to correct problems in the application solution. This could include both the root cause and/or associated symptoms of the problem.
- Enhancements work performed to enhance the functionality or performance in the application solution. This may involve configuration, data repair, code development, process change, educational support or a combination of these tasks.
- > Testing Support work performed to validate new or modified functionality prior to putting it into production.

Over the life of the SR type may change. For example, a SR that starts as User Support to help a user look into an issue may turn into a Defect or Enhancement. It is critical to note that SR tracking does not serve as the communication mechanism for the engagement. As partners, EY and CLB would discuss items in person, phone, chat, email, and other means to establish an effective working relationship.

Please refer to Appendix A for more information about the Service Request (SR) process flow.

The delivery of these services will be enabled by the delivery processes depicted in the graphic above. As mentioned, we anticipate the process model to be a blend of what currently works for CLB and the leading practices contained in our managed service delivery methodology. Among these processes are the following:

- Incident and Request Management: Each service request would have a priority and severity associated with it, which in turn drives the service level required or the implication of a workaround to resolve the problem/incident. Details of all problems would be recorded on CLB's existing help desk system. Each record would have full user information and details of the problem (and related incidents); an ongoing record would then be maintained of all activities and progress in resolving the issue
- Demand Management: Demand management will be critical to make the most effective use of discretionary capacity. The demand management function focuses on working with the CLB's business to understand the service requirements of the business and manage the receipt of work requests. EY brings lessons learned and approaches from our other Oracle Utilities and EBS managed services engagements to help CLB prioritize and sequence the requests coming from the business to avoid unofficial and uncontrolled channels of demand.
- Change Management: Together with CLB EY will implement a change management process that provides structure for how the team reviews change requests against the engagement/business plan to understand possible impact on service objectives, performance metrics, and team constraints. This would provide some context upon which to decide if a change is warranted. Once a recommendation is made, the change request, with supporting analysis, would be forwarded to the appropriate stakeholders for discussion and final disposition.
- Knowledge Transfer: There are two types of Knowledge Transfer in our solution. The first takes place during transition as we transfer the knowledge from your team and contractor base we need to support the applications. The second, a core feature of our delivery model, is the ongoing effort to transfer knowledge from the EY delivery team to CLB to improve your organizations ability to support and maximize the value of you investment in these applications. This will include formal knowledge transfer plans for those CLB staff you identify, and the continual measurement of your organization proficiency.

Our Proposed Delivery Organization

Performing under this operating model, the composition of our proposed delivery organization will be influenced by the packages CLB opts to include in the scope, and the amount of fixed discretionary capacity included in the base services. The graphic below depicts the roles by service area and the anticipated FTE counts. We are confident the organization depicted can support the scope of services detailed in the RFP, but anticipate working closely with CLB to further structure our team to drive optimal alignment with your organization.

Name	Role	and an expense of the second
Engagement leadership	 In process description and the control of completely consequently and the conference of the control of the contro	Section 2017 Control of Control o
Chad Hamilton	Engagement Partner	N/A
Bobby Batson	Service Quality Executive (SQE)	N/A
John Zenyuh	Engagement Manager	10%
Engagement Delivery		
Daryl Recto Daryl Recto	CC&B Functional Architect	100%
Mike Benoit	CC&B Functional Architect	25%
John Regan	MWM Functional Architect	50%
John Villarosa	Senior Designer / Analyst	100%
Ryan Sarsany	Technical Architect	75%
TBD / GDS Technical Architect	Technical Architect	100%
TBD / GDS Functional Architect	Functional Architect	100%
TBD / GDS CC&B Resource	Senior Designer / Developer	50%

Any TBD resources in the above table will be reviewed by CLB prior to working on the engagement. The GDS CC&B resource will have 5 years of applicable experience.

Key Roles in this organization include:

- Engagement Manager The EY Engagement Manager would be the day-to-day lead of all EY delivery across all the software packages to CLB. This individual would be charged with fulfilling EY's commitments (SLAs and business expectations) to CLB. The Service Delivery Lead would also be responsible for the development and structure of the people on the team and their career growth. The Service Delivery Lead fits into EY's P&U practice and shares knowledge and gains insight from experiences across our utility portfolio.
- Functional Architects: The functional architects will be responsible for supporting their specific application areas. This includes resolving service requests from users, confirming the proper functioning of the software, addressing performance issues and developing functional designs as needed based on CLB's business requirements.
- Technical Architects: The technical architects will support their respective application areas by providing system performance monitoring and tuning, security and internal controls administration, environment management, configuration recommendations and capacity management
- Designer/Developers: The designer/developers will own translating the functional requirements into technical designs, estimating development effort and leading the end-to-end development and testing of enhancements, integrations and reports.

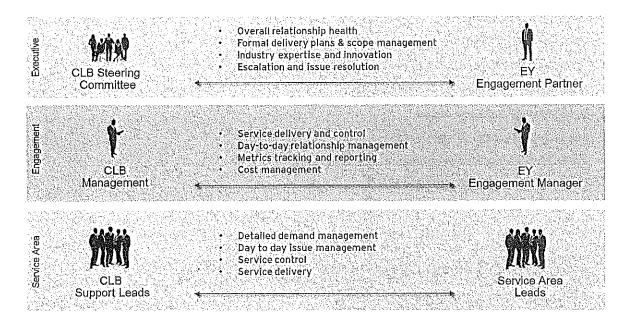
Note: EY is committed to supporting CLB's production system on a 24/7 basis. This often requires night and weekend work. EY resources will also take vacations and not always have a dedicated replacement resource. EY is committed to ensuring its resources fulfil its FTE commitments. EY defines a Full Time Equivalent (FTE) is defined as working 160 hours per month.

Governance of the Operating Model

To create the most value for your business through the delivery of these services, CLB and EY must have a relationship that effectively operates on multiple governance levels. From the critically important executive sponsorship through to the day-to-day activities of the delivery team, the governance structure should:

- Unite the team around a common focus and set of business outcomes
- Facilitate communication and issues escalation across all levels of the organization
- Establish a reporting structure and meeting cadence so that all key stakeholders are informed and invested in the engagement's success

As depicted below, we believe that a successful relationship between CLB and EY must function on the executive, engagement and individual work team levels. Accordingly, we have assigned a combination of senior EY leadership and accomplished delivery executives to the project to work with CLB to enable the project's success and desired business outcomes.



- Executive level: EY will commit a team of our most senior executives available to manage the executive level of the relationship. These individuals will be responsible for the overall satisfaction with our services and for bringing innovation and thought leadership to the engagement. They will also serve as the ultimate escalation point for any issues that may rise and will participate in executive steering committee meetings. Chad Hamilton will serve as the Engagement Partner for CLB and will coordinate the EY executive involvement including the Service Quality Executive for quarterly EY led review meetings. EY envisions that the CLB CIO, CFO, and directors of Public Works, Water, Oil & Gas will participate in quarterly review meetings along with their appropriate direct reports.
- Engagement Level: The Engagement Manager (EM) interfaces with designated CLB IT and business leads on the overall delivery metrics, business-case objectives, performance and action plans, financial issues, escalation from the service area leads, and contract issues. The EM leads the weekly and monthly status meetings and is ultimately accountable to CLB for EY services delivered. John Zenyuh is our proposed Engagement Manager for the engagement. In the weekly and monthly status meetings both IT and business owners would be represented.
- Service Area Level: The service level will be comprised of functional architects to manage the day-to-day activities in support of their application package or cross-package role. Our proposed team leads bring an average of 10+ years' experience supporting their application areas and are rooted in the common EY service delivery methodology.

In addition to establishing relationships at each level of the organizations it is import to consistently communicate at the appropriate levels. To that end, the following regular review and status meetings will be conducted:

Managed Services Weekly Status

EY's EM will conduct a weekly status meeting with the CLB IT and business representatives. In this meeting, the EY MS weekly status report will be reviewed.

EY's weekly status report will provide a summary of the following:

- MS Support health
 - o Batch Performance
 - Online Performance
 - Application incidents
- Ongoing Service Requests.
- Completed Service Requests.
- Potential improvement suggestions to log for review and approval.
- Prioritized list of in progress and future work.
- Upcoming milestones and releases.
- Risk Identification and mitigation plan.
- Action items and issues across different application areas.

Managed Services Monthly Engagement Review

EY's Engagement Manager will conduct a monthly review meeting with the appropriate IT lead and various business leads. The CIO, CFO, and Department (Oil & Gas, Public Works, Water) directors may also attend, if desired. This meeting will occur the third Wednesday of each month. In this meeting, the EY MS monthly engagement review report will be reviewed.

- EY's monthly engagement status report will provide a summary of the following:
- Key Support and Performance Metrics.
- MS Support progress and resolving critical issues.
- Key upcoming objectives and projects.
- Eapturing agreements and disagreements as well as items that need escalation.
- Business impacts of Managed Services incidents

Managed Services Quarterly Executive Planning

EY's Engagement Partner will conduct a quarterly executive planning meeting for the Managed Services Support committee with the CIO, CFO, and Department Directors. Their appropriate direct reports may also attend if desired. This meeting will occur the third Wednesday of the month following quarter end. This will occur after or in place of the Monthly Engagement review. In this meeting, the EY MS monthly engagement status report will be reviewed.

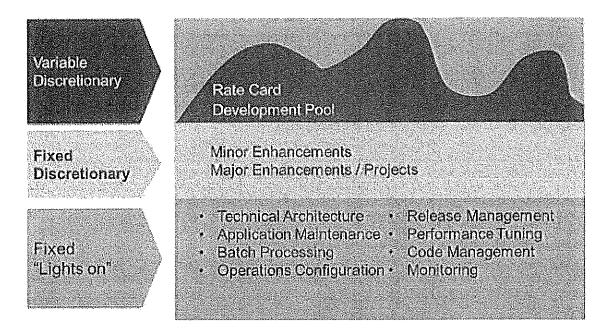
EY's quarterly executive review will address the following items:

- Quarterly rollup of Key Support Metrics and Performance Metrics.
- Escalated items requiring review. MS Support progress and resolving critical issues.
- Key upcoming objectives and projects.
- Possible changes to KSM's and KPM's.

- Managed Services support of strategic CLB goals
- Effect of CLB IT initiatives on Managed Services engagement
- Effect of CLB policy and IT decisions on Managed Services engagement
- Business impacts of Managed Services incidents

Flexing the Delivery Model

EY recognizes CLB's requirement to structure the services into the "Fixed" and "On Demand" categories. This idea matches well with our typical commercial structure for managed services depicted below. We will work with CLB to establish the appropriate structure and levels of support based on your requirements.



In this structure the predictable services are those required to keep the "lights on" and meet the desired service level targets. Generally we provide these services under a fixed price model with the ability to retool or resize the team on a periodic basis. A certain amount of fixed discretionary work to apply to enhancements, reports or projects is typically included in this approach.

We also recognize that CLB may have requirements beyond the base team to support such activities as projects and major upgrades. In our managed services model, we address this additional discretionary demand in several ways including the following:

- Development Pool: Many of our agreements have allocated a pool of hours or FTEs dedicated to discretionary development activities. This allows the client to take advantage of long-term rates and establish a team dedicated to its environment. Through the governance mechanism, we typically resize and re-skill these pools on an annual basis.
- Rate Card: EY often includes both a short-term and long-term rate card to provide clients with a predictable pricing for various types of skills and levels of resources.

Measuring the Delivery Model - Key Performance Metrics

In addition to providing stable and predictive operations for the supported applications, EY's Managed Services model provides opportunities continuous incremental improvement. To measure the value of these two objectives, EY provides different types of Key Performance Metrics (KPM's) for engagements. By highlighting and consistently measuring these metrics over time, CLB and EY have an objective way to evaluate the level of service being provided and improvements taking place. These KPM's can be evaluated as a point in time or as a trend over time. These metrics will be available for viewing on demand and are typically discussed in a monthly meeting as part of the overall governance process.

The different types of KPM's for a managed services engagement are:

- Business Operations measure the performance of a particular business function or process for which a supported application plays a key role. Often, these KPM's may be already being measured by a business group within the organization. These KPM's are used to highlight desired business areas of improvement in which changes to the application and associated business processes may lead to improved business operations.
- Application Functions measure performance of the supported application (e.g., CC&B), its integrated applications, and associated business processes to perform the required application functions.
- Infrastructure Stability measures performance of the application's technical architecture to provide a stable and robust application that is available and efficient for users and processes batch processes in a timely manner.
- Process Delivery measures how EY's team is serving the client

There are two key considerations to using these KPM's. First, it is important to focus on a finite group of KPM's. Typically EY would measure 3-5 KPM per product area. In some cases, the KPM's measured can change over time. This is particularly true for Business and Application KPM's. If the performance for a particular item has been satisfactorily improved, CLB may elect to replace the KPM to measure another aspect of the organization. Second, most KPM's are affected by many variables, not just items within EY or CLB's control. While actions can be taken to improve a particular area, it may not have a direct correlation to improve the KPM. For example, if the enrollment process is improved by implementing campaign functionality to improve Average Call Minutes per Customer, but there is a massive storm you will not see that improvement.

By utilizing agreed upon targeted metrics to measure application performance and service, CLB receives metrics that objectively measure the success of the engagement and assist CLB in improving overall business operations.

Business	Application	Infrastructure	Projects
Call Minutes per Customer	Enrollment Completion	Batch Processing	Defects
AR Days	Bill Exceptions	Application Uptime	Service Requests
Bad Debt	Appointment	Integration	Request
	Availability	Processing	Response
Total Truck Miles	Payment	Environment	Deployment
	Exceptions	Build Time	Success
Crew Slack Time	To Do Counts	Outages	Code Rework

Documentation and Communications Management

To manage the project documentation and communications, we propose to use EYDelivers, a secure, web-based workspace that allows EY professionals, our clients and third parties to quickly share documents, information and

ideas any time of day from any location. It provides a seamless experience based on Microsoft SharePoint technology, enabling us to:

Increase productivity: EYDelivers helps improve productivity by streamlining project management, simplifying document review and providing up-to-date information on what tasks need to be completed.

What featur	taralle (vailable in EY <i>Delivers</i> ?
Document management		Documents are organized in an easy-to- understand structure that can be shared in libraries and folders.
Task management	¥	Track the status of a task and key project dates with the task management capabilities.
MS Office Integration	(음)	Easily integrates with your existing Office applications to allow you to work seamlessly.
Workflow administration	11001001	The review and approval workflow integrates with documents, tasks and risks. It is a powerful tool to manage outstanding reviews and sign-offs.
Connectivity	<u> </u>	Stay in touch with your colleagues and the EY team by collaborating online using our secure client portal. Our information security policies and standards are based on the internationally recognized ISO 27002 standard for information security management.
Scalability	A CONTRACTOR OF THE PARTY OF TH	Use the large capacity to store many volumes of documents, records and tasks. EY Delivers can support sites up to 200GB, ideal for most project purposes.
Version control		Version control in EY <i>Delivers</i> allows content authors and approvers to track changes over time.
Recycle bin	Ø.	Retain deleted Items for 60 days.

- Manage individual projects and work streams: EYDelivers can be customized to meet the unique needs of CLB's project.
- Enhance document management: EYDelivers stores the latest project documentation in one location. Previous document versions are automatically tracked for reference, helping to confirm you're working with the correct version.
- Simplify document approval: EYDelivers enables web-based review and sign-off of important work products.
- Reduce risk: EYDelivers allows us to highlight and monitor risks, issues and key decisions relevant to LWC's project.
- Control access: EYDelivers allows you to specify who can see or edit specific documents and tasks.
- Find content easily: EYDelivers' user-friendly, Microsoft SharePoint-based interface enables easy navigation between project tasks and documentation, as well as quick editing using the familiar ribbon found in Microsoft Office.

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Leveraging EY's Global Delivery Services

EY's solution for CLB includes the support from our Oracle Utilities center located in Manila. This includes the use of "landed" resources from Manila onsite at CLB if needed.

Part of EY's network of centers that comprises our Global Delivery Services (GDS), the consultants in Manila have supported the majority of our North American Oracle Utilities implementations primarily in the design, development and testing work streams. The benefits of using Manila in our solution include:

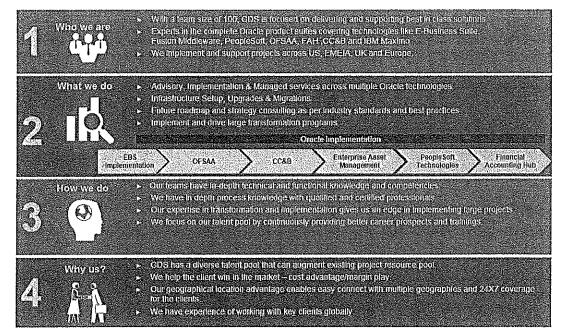
- Accessing the existing economies of scales built around Oracle Utilities to increase quality and reduce costs
- Leveraging a "follow-the-sun" approach to improve team productivity and shorten the implementation time frame
- Engaging the Oracle Testing Center of Excellence to speed the testing effort, reduce project risk and lessen the resource demands on the CLB organization

The distribution of work across this delivery model can be adjusted based on individual project requirements such as regulatory-driven customizations or non-standard interfaces, but the best practice is to perform the high-touch, highly interactive activities on-site such as project management, requirements analysis and functional design on-site at CLB.

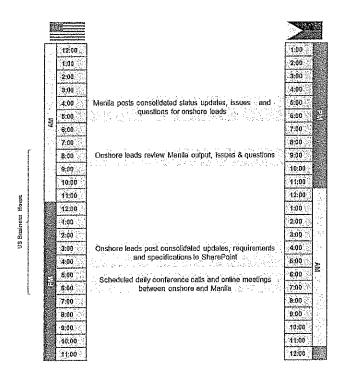
Activities such as technical design, programming, non-UAT testing and performance monitoring are well suited for the Manila center.

The Global Delivery Services (GDS)

- A connected network of delivery centers organized around technical competencies
- 7,000 plus EY professionals with in-depth process; technical and operational skills
- Connected through common processes, collaboration tools and service quality programs
- Includes the 50+ Oracle Utilities consultants in the Manila center



Both the EY Project Manager and the delivery team are experienced working in this delivery model, and will adopt a project governance structure and cadence to drive efficiency, quality and flexibility. Enabled by our collaborative toolset EYDelivers, we will take full advantage of the time zone differences between Louisville and Manila, and will keep work flowing in a positive direction using the "follow-the-sun" approach. The chart below depicts the interactions between our on-site team and Manila on a typical project day.



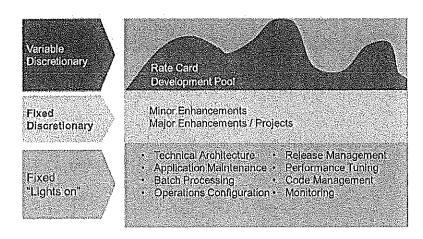
From a process standpoint, EY follows an SEI CMM compliant set of methods to manage the design, development and testing activities performed in our GDS. Enabled by common tools, these methods drive consistency, quality and agility in our centers. Given that the Manila center is dedicated to the support of Oracle Utilities applications, we have adapted and optimized these methods to the Oracle technology.

Detailed cost explanation

EY Typical Fee Structure

EY recognizes CLB's requirement to structure the services into a Fixed Fee arrangement for operations support and minor enhancements as well as an "As Needed" variable support component for larger initiatives. This idea matches well with our typical commercial structure for managed services depicted below.

In this structure the operations support are those required to keep the "lights on" and meet the desired service level targets. Generally we provide these services under a fixed price model with the ability to retool or resize the team over the course of a multi-year engagement. A certain amount of fixed discretionary work to apply to enhancements, reports or projects is typically included in this approach.



We also recognize that CLB may have requirements beyond the base team to support such activities as projects and major upgrades. In our managed services model, we address this additional discretionary demand in several ways including the following:

Development Pool: Many of our agreements have allocated a pool of hours or FTEs dedicated to discretionary development activities. This allows the client to take advantage of long-term rates and establish a team dedicated to its environment. Through the governance mechanism, we typically resize and re-skill these pools on an annual basis.

Rate Card: EY often includes a rate card to provide clients with a predictable pricing for various types of skills and levels of resources on a time and materials basis.

Fixed Monthly Fee

EY proposes a fixed monthly cost of \$138,053. This includes expenses for 28 trips on site to CLB for remote resources per 6 month period.

The planned travel for resources is:

- Daryl Recto 18 trips (3 weeks per month)
- John Reagan 8 trips
- Ryan Sarsany 2 trips

This travel schedule for the resources can be changed based on changing circumstances and agreement between EY and CLB.

CLB has the option to renew this support for an additional 3 months at the same fixed monthly cost of \$138,053 with an additional 13 trips on site to CLB for remote resources

Rate Card

EY proposes the following rate card for any As Needed Services requested by CLB. Consistent with our current agreement both an onsite and offsite rate is provided for any resources that are not local to the Long Beach area.

Position	Offsite Rate / Hour	Onsite Rate / Hour
Practice Manager	\$260	\$300
Engagement Manager	\$240	\$280
Senior Functional Architect	\$225	\$265
Functional Architect	\$200	\$240

Position	Offsite Rate / Hour	Onsite Rate / Hour
Functional Analyst	\$150	\$190
Senior Technical Architect	\$225	\$265
Technical Architect	\$200	\$240
Technical Analyst	\$150	\$190
Senior Instructional Designer	\$225	\$265
Instructional Designer	\$185	\$225
Training Analyst	\$150	\$190
Application Architect (offshore)	\$65	N/A
Senior Designer / Developer (offshore)	\$55	N/A
Designer / Developer (offshore)	\$45	N/A

Product and Client Experience

To enable your objectives for this project, we bring to CLB a strong combination of utility industry experience, a proven set of methods and tools, and a team with deep experience working with the set of utility applications in both implementation and post-implementation engagements. Our EY team is part of our broad Advisory practice that has deep consulting depth across the entire suite of Oracle's utility specific applications. We strongly believe this makes us the best-suited organization to work with CLB on this important initiative. Relating these areas to CLB's requirements for this initiative, the following application expertise applies:

Customer Care & Billing (CC&B):

- Our team has a rich resume of delivering Oracle utility applications and providing postimplementation support services to numerous clients. As such, we have and bring relevant business knowledge and experience to share with CLB to support and enhance their current operating environment.
- Currently providing managed services to City of Cleveland while implanting a Stormwater Billing solution and assisting with their conversion to Monthly Billing.
- Made up of functional and technical teams with a combined 300 years of experience who trace their CC&B roots to the original SPL development organization and have worked together multiple times taking implementing and managing CC&B and ancillary applications.
- Provided post go-live CC&B support to over 20 North American utilities using both North America-based consultants and offshore Global Delivery Services team in the Philippines and India.
- Upgraded City of Long Beach to version CC&B 2.5. This included performing the conversion of custom code from COBOL to Java.

Mobile Workforce Management (MWM):

Our MWM resources have a long history with the product. We have implemented the solution numerous times and provided post-implementation support via managed services contracts. In addition we have worked with clients to improve and fine tune MWM's scheduler to derive maximum business value.

- EY has implemented MWM at multiple utilities, most recently at Artesian Water and Long Beach where it supports multiple commodities including Gas and Water. We currently support multiple MWM engagements.
- EY is currently performing an upgrade to MWM 2.3 for Long Beach to take advantage of the new HTML5-based Mobile Communications Platform (MCP) and improved Reserve Capacity functionality.
- We also understand the integration between MWM and the other applications. We are currently implementing the Field Work Product Integration Pack (PIP) at City of Phoenix between CC&B and MWM.

The following is a partial listing of recent clients and engagements to demonstrate skills and capabilities possessed by our team with respect to the CCB, MWM and MDM applications. EY would be happy to provide additional information on these projects as well as contact information for the client if CLB desires:

City of Cleveland Department of Public Utilities: The City found their CC&B application was difficult to operate and maintain under their combined hosting and Managed Services contract. While the contract provider was proficient at server hosting and generic IT management, it lacked the CC&B specific niche skills to operate the CC&B solution effectively. We were engaged to take over the Application Managed Services role for the City. They required deeper product knowledge and application management skills to operate their billing solution effectively and continue to improve the business operations for its 467,000 customer accounts. We leveraged our offshore resources through the Global Delivery Services (GDS) to provide the following services:

- Advised on business and application improvements to the enrollment, billing, payment, collection, field services, and severance processes.
- Performed all CC&B application configuration.
- Provided development capability, supports, and execute technical and functional project initiatives related to CC&B.
- Executed, monitored, troubleshoot, and optimized all batch operations related to CC&B including base, integration, and reporting processes.
- Maintained all technical environments and application code repository.
- Leveraged a mix of on-site, onshore, and offshore resources to create an optimal mix of applicable skills, cost efficiencies, and time shifting for the client.
- Stabilized batch operations, which included meeting nightly batch window objectives during the first six months.
- Eliminated application outages and performance issues, which included reducing outages to one hour during the first six months
- Automated numerous manual operations through expanded use of application functionality.
- Incorporated additional functionality to support new solutions, including the Automated Metering Infrastructure (AMI) function.
- Enabled the client to truly improve their business operations
- Cal Water: Cal Water had CC&B, MDM and OBIE and required services to upgrade CC&B and ensure the application still functioned with external applications. We leveraged our onshore and offshore resources through the Global Delivery Services (GDH) to provide the following services:
 - > Introduce a cloud-based development environment that provided the client with a faster way to access new environments necessary for development, testing and training

- Identified gaps requiring custom algorithms and plug-ins and design as necessary
- Aassessed the integration requirements, defined CC&B's role in the overall solution and its operational and analytics reporting requirements to develop overall product solutions
- Led integration strategy workshops to determine the approach for each integration point
- Led reporting workshops to assess how the product would be configured to meet operational and analytics requirements
- Developed Extensions, Interfaces and Reports as required
- Cobb EMC Managed Services: Cobb and its subsidiary found their costs associated with operating many components of their technology footprint, including Oracle's Customer Care & Billing (CC&B) and Meter Data Management (MDM) application were not in line with the value provided. They also determined that the two organizations had different needs and needed to transition to two separate technology platforms. Their business need was to provide and operate a support model that could support them during the transition and post transition as required. We were engaged to take over the Application and Infrastructure Managed Services role. They streamlined their IT reporting structure and focused on core IT items while approximately 25 of our team members provided deeper product knowledge and application management skills to operate their billing solution effectively and continue to improve the business operations for its 200,000 electric and 265,000 gas customer accounts. Our services included:
 - Utilized our industry-leading consulting capabilities and proven methodology to deliver 24-hour support through a comprehensive application and infrastructure managed service program.
 - Advised the client on business and application improvements to the enrollment, billing, payment, collection, field services, and severance processes.
 - Provided ongoing management of all aspects of their technical infrastructure, utilities software applications, batch operations and support for their mission critical reporting function.
 - Responsible for Oracle CC&B and MDM configuration and application development.
 - P Operated and enhance the associated Business Objects business intelligence platform.
 - Leveraged a mix of on-site, onshore and offshore resources to create an optimal mix of applicable skills, cost efficiencies, and "follow the sun" workflow support for the client
- Cobb EMC AMI: Cobb decided to undertake extensive AMI project which involved two major components. The first component was this installation of the AMII infrastructure with the replacement of all analog and MRVS meters. The second component was the integration to the current CC&B application and related systems. The purpose of the project was to remove the manual meter reading processes and associated costs, reduce truck rolls for connecting and disconnecting meters and to improve operational efficiencies through advance meter information. EY was engaged to manager the project and the utility successfully replaced some 200,000 meters.
 - Established a PMO to manage AMI implementation and transition processes.
 - Identified business processes required to implement AMI infrastructure.
 - Planned the resources and timelines and estimate costs.
 - Built an interim process to provide AMI based meter reads.
 - Technical Versatility many of the products selected by the client as part of the desired solution had not been used elsewhere, a depth of industry and technical knowledge was provided that allowed a solution to be developed without project delays.

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