

1 FIRST AMENDMENT TO AGREEMENT NO. 33111

2 **33111**

3 THIS FIRST AMENDMENT TO AGREEMENT NO. 33111 is made and
4 entered, in duplicate, as of July 23, 2014 for reference purposes only, pursuant to a
5 minute order adopted by the City Council of the City of Long Beach at its meeting on
6 June 10, 2014, by and between UTILIWORKS CONSULTING, L.L.C, a Louisiana limited
7 liability company with a place of business at 2351 Energy Drive, Suite 1200, Baton
8 Rouge, Louisiana 70808 ("Consultant"), and the CITY OF LONG BEACH, a municipal
9 corporation ("City").

10 WHEREAS, the City requires specialized services requiring unique skills to
11 be performed in connection with technical consulting services related to the evaluation,
12 design, and procurement and implementation of an Automated Meter Reading (AMR)
13 system for the Gas & Oil Department; and

14 WHEREAS, the parties previously entered into Agreement No. 33111 (the
15 "Agreement") whereby Consultant agreed to provide such services; and

16 WHEREAS, the parties desire to extend the term, amend the Scope of
17 Work and increase the Agreement amount by \$1,391,940 for a total not to exceed
18 amount of \$1,637,310;

19 NOW, THEREFORE, in consideration of the mutual terms and conditions in
20 the Agreement and in this First Amendment, the parties agree as follows:

21 1. Section 1.A. of Agreement No. 33111 is hereby amended so that, in
22 addition to those services already included in Exhibit A to the Agreement, Consultant
23 shall furnish specialized services more particularly described in Exhibit "A-1" attached to
24 this First Amendment and incorporated herein by this reference, in accordance with the
25 standards of the profession, and City shall pay for all such services (including those
26 described in Exhibit "A" to the Agreement) in the manner described below, not to exceed
27 One Million Six Hundred Thirty-Seven Thousand Three Hundred Ten Dollars
28 (\$1,637,310), at the rates or charges shown in Exhibit "B" attached to the Agreement and

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

1 Exhibit "B-1" attached to this First Amendment. To the extent the rates and charges in
2 Exhibit B to the Agreement and B-1 to this First Amendment conflict, then the rates or
3 charges in Exhibit B-1 shall control.

4 2. Section 2 of Agreement No. 33111 is hereby amended to read as
5 follows:

6 "2. TERM. The term of this Agreement shall commence at midnight on
7 July 1, 2013, and shall terminate at 11:59 p.m. on January 31, 2018, unless sooner
8 terminated as provided in this Agreement, or unless the services or the Project is
9 completed sooner."

10 3. Except as expressly amended in this First Amendment, all terms and
11 conditions in Agreement No. 33111 are ratified and confirmed and shall remain in full
12 force and effect.

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IN WITNESS WHEREOF, the parties have caused this document to be duly executed with all formalities required by law as of the date first stated above.

UTILIWORKS CONSULTING, L.L.C, a Louisiana limited liability company

_____, 2014

By T.A. Barlow
Name TODD A BARLOW
Title VP/Operations

_____, 2014

By _____
Name _____
Title _____

"Consultant"

CITY OF LONG BEACH, a municipal corporation **Assistant City Manager**

August 18, 2014, 2014

By Jim Mander
City Manager **EXECUTED PURSUANT TO SECTION 301 OF THE CITY CHARTER.**

"City"

This First Amendment to Agreement No. 33111 is approved as to form on

August 15, 2014.

CHARLES PARKIN, City Attorney

By [Signature] for RF Anthony
Deputy

EXHIBIT “A-1”

Scope of Work or Services

Updated Statement of Work

New Tasks Supporting AMI Project Implementation

Purpose

This Statement of Work (SOW) is to document the services UtiliWorks (UWC) will provide the City of Long Beach (CLB) for Project Implementation Activities associated with the Advanced Metering Infrastructure (AMI) project.

Assumptions

- CLB will assign Project Manager to participate in regularly scheduled status calls with the UWC Project Manager to review open issues and remove barriers to progress
- Work will be performed by UWC resources either on-site or off-site in the completion of task order deliverables
- All work tasks performed by UWC resources shall be approved in writing in advance of commencement
- UWC assume that CLB will allow UWC to start on Phase 5 activities before Phase 4 is complete if there are no dependencies.

Phase 4 – Vendor Contract Negotiations

It is estimated Phase 4 will take approximately 3 months to complete from Project Commencement. The goal of Phase 4 is to complete all contract negotiations/executions; develop governance approach including project charter, identifying committee members, and developing a project execution plan. Deliverables are further detailed below:

	Phase 4 – Contract Negotiation Deliverables
Task 4.1	Review Vendor Contracts and Develop Statement of Work
Task 4.2	Ratified Project Charter
Task 4.3	Project Execution Plan (PEP)
Task 4.4	Develop Signal Hill Water Project Plan
Task 4.5	Validate Signal Hill Water Project Costs
Task 4.6	Onsite Project Kickoff Meeting
Task 4.7	Onsite Systems Integration Workshop (1 day)

Task 4.1 – Support Contract Negotiations

UWC will guide and support contract negotiations between CLB and the selected AMI and MDM Vendors, the Installation Contractor and Integration Vendor.

4.1a = Define Participant Responsibilities

UWC will work with the CLB and the selected Vendors to define and document the expected responsibilities of each project participant (i.e., AMI Vendor, MDM Vendor, Install Contractor, Integration Vendor, CLB, and UWC) throughout the project. The project participant responsibilities will be incorporated into the final Vendor contracts.

4.1b = Statement of Work Technical Specifications

UWC will facilitate the development of Vendors' technical scope for each component of project work (AMI, MDM, Installation, Integration, etc.) UWC will also facilitate the development of the payment schedule of values with all vendors for the POC and full implementation.

4.1c = Develop Systems Acceptance Criteria

UWC will work with CLB and the selected vendors to develop the set of criteria that will be utilized to evaluate whether the proposed vendor systems meet CLB requirements. Specific acceptance criteria will be developed for AMI, MDM, meters, field devices, backhaul, and Systems Integration. The acceptance criteria will be incorporated into the final vendor contracts.

4.1d = Contract Review

UtiliWorks will review and provide editorial for each proposed contract regarding its compliance with CLB technical requirements and associated acceptance criteria. As part of this task, UtiliWorks will review and provide the necessary input into the cost proposal for acquisition, the ongoing cost of ownership of the AMI and the MDM systems as well as provide guidance and to the extent possible negotiate terms more favorable to CLB for a fully hosted AMI and MDM solution.

Assumptions: CLB will lead the legal and all other internal requirements to finalize contracts. CLB will take the lead in negotiating all local hiring requirements between the Installation vendor and Local 1309.

Deliverables: CLB approved Statement of Work and Pricing Schedule for AMI vendor, MDM vendor, and Installation vendor.

Task 4.2 – Ratify Project Charter

Prior to project kickoff, UWC will work with CLB to compile their internal project team organization structure, identify members of the Steering Committee, Change Management Committee, and Core Team. The frequency and timing of Committee meetings will also be developed and included into the Project Charter. UWC will work with CLB to ratify the project charter that will provide project governance and communicate the high level project implementation approach and the responsibilities of all project stakeholders.

Task 4.3 - Project Execution Plan (Updates and tailoring with Vendor Contract Data)

UWC will work with CLB to update and align the Master Project Execution Plan (PEP), which has been created in previous phases of work. The purpose of the PEP is to provide a set of guiding principles regarding philosophy, judgments and actions to be taken over the course of the project. The PEP will contain performance metrics and benefits verification parameters along with clear project phasing. Based on the vendor work packages and deliverables, the base project plan will be updated to include performance milestones and estimated levels of work by various stakeholders in both the Proof of Concept (POC) and Full Deployment phases.

The PEP will also contain descriptions of the methods used for project controls related to: Cost and Budget Controls, Quality Control, Risk/Issue/Change Management, and Project Status reporting. The PEP will utilize the very latest information on project costs and schedule and will provide CLB with an estimated invoicing forecast over the full duration of the project. Upon CLB approval, the PEP will be shared with the selected vendor(s) for input/feedback and to establish continuity among all project participants.

Task 4.4 – Develop Signal Hill Water Project Plan

The City of Signal Hill (CSH) operates its own water department. Many of their customers are also customers of Long Beach Gas & Oil. Discussions are underway with CSH to include its water meters in Long Beach’s smart meter implementation. Utiliworks will work with CLB and CSH to develop a comprehensive Water Project Plan specific to Signal Hill. The plan will be similar in scope to Long Beach’s plan and once approved will be integrated into the Project Execution Plan.

Assumptions: CLB will coordinate meetings with Signal Hill and support UWC’s data requests as needed to develop a plan.

Deliverable: MS Project Plan with a narrative project summary suitable for sharing with Signal Hill and other members of the implementation team.

Task 4.5 – Validate Signal Hill Water Project Costs

The vendor RFP responses included pricing for water smart meters. UWC will review, verify and develop a cost sheet for Signal Hill Water deployment as part of CLB’s implementation.

Deliverable: Cost estimate for complete Signal Hill project.

Task 4.6 - Onsite Project Kickoff

UtiliWorks will hold an on-site kickoff meeting with stakeholders and project team members to review the project scope, timeline, communications plan and housekeeping items. The Steering Committee may decide to conduct two kickoff meetings. The first is with the “core” team early in the project. The vendor reps could be invited. The 2nd kickoff would be with all the CLB resources closer to the time that the materials are onsite and the work is ready to begin.

Task 4.7 – Onsite System Integration Workshop

UWC will lead a workshop with CLB and the selected Vendors to identify and confirm the systems specific integration methodology and ensure alignment between each Vendor’s underlying interface: **AMI <> MDM <> CIS.**

Assumptions: UWC will coordinate and facilitate an onsite meeting with the System Integrator and vendors on or around July 30. It is understood that this task may change depending on the outcomes of the contract negotiations. However, both CLB and UWC anticipate that a significant level of discussion and coordination is required between the vendors to ensure clear definition and alignment on the integration methodology. UWC will manage this task using project management budget.

Deliverable: Narrative overview of Workshop / Meeting Outcomes and a list of any action items to follow

Phase 5 – Proof of Concept

This phase of the overall project is estimated to have a ten (10) month duration. The primary goal during this phase of the project is to complete installation of the AMI network; purchase and install all server hardware and software; install the AMI and MDM software; install meters in the test area (approximately 1000 meters); complete the integration of meter reads and meter data between AMI, MDM and CIS; and verify end-to-end billing of accounts in the test area. Tasks are further detailed below:

	Phase 5 – Proof of Concept Deliverables
Task 5.1	Develop POC Implementation Plan - Alpha and Beta
Task 5.2	Core Business Process Flows – Pass 1
Task 5.3	Develop Meter Configuration Specifications
Task 5.4	Develop Mass Meter / Equipment Change Out Plan
Task 5.5	Develop Field Equipment Quality Assurance Plan
Task 5.6	Develop Test Plan For SAT, Integration Testing,

	and UAT
Task 5.7	Deploy Alpha POC
Task 5.8	Core Business Process Flows – Pass 2
Task 5.9	Deploy Beta POC
Task 5.10	Develop Training Plan
Task 5.11	Manage and Support User Acceptance Testing
Task 5.12	Manage and Support User Training
Task 5.13	Core Business Process Flows – Pass 3
Task 5.14	Field Deployment Mobilization Plan

Task 5.1 – Develop POC Implementation Plan Details

The Pilot project will consist of two distinct stages, the Alpha Pilot and the Beta Pilot. For both phases, UWC will work with the Vendors and CLB to develop the implementation plan for equipment location; required materials; expected services including testing and training; and, installation details.

Alpha Phase

The Alpha Phase begins with the “back end” of the system. A limited amount of metering hardware will be field-deployed during this phase. The phase involves installation of the supporting systems, most typically the Automated Metering Infrastructure (AMI) headend and Meter Data Management Systems (MDMS). Focus is dedicated on the integration of meter data from the AMI headend to the MDMS and back to the CIS. The goal is to verify end to end connectivity inclusive of field devices through the communications network to the AMI Headend, MDMS and CIS.

During the Alpha phase, any work required to create the backhaul infrastructure is coordinated and completed in preparation for the Beta phase of deployment. Alpha development is generally conducted during the manufacturing lead times for ordered equipment.

To minimize risk, UWC recommends a collector and a limited number of AMI devices be deployed in a laboratory environment to simulate the data streams of field-deployed meters in Beta and later phases. The philosophy here is to commit as little project funding as possible while proving basic concepts and making basic system functionality available earlier in the project. This ‘sandbox’ environment will facilitate development of the meter configuration and acceptance testing of various use cases, but will also be useful for testing of program enhancements and new meters and devices into the future. A quality gate exists at the end of the Alpha phase, specifying objective criteria to complete the Alpha phase and commence the Beta phase.

Beta Phase

The Beta Phase begins with field deployment of a pre-determined quantity of metering hardware and backhaul network infrastructure. Since the Beta phase cannot be entered without a successful completion of the Alpha phase, basic meter reading and billing functionality is available immediately.

Business process changes and improvements are tested during this Beta phase, so that they can also be debugged prior to a production deployment. This provides the CLB system users time to adjust to new processes and procedures and builds a familiarity with the new systems and methods to be employed. During the Beta phase, additional functionality may be added and tested in stages, with the goal to complete system integration and documentation activities prior to user training and system acceptance testing phases. Another quality gate exists at the end of the Beta phase, which allows passage into the User Acceptance Test Phase.

Assumptions: CLB will assign a PM who will work with UWC and vendors in constructing a sufficiently detailed plan that can support weekly execution of the work required in this part of the project.

Deliverable: Detailed POC Implementation Plan based on CLB, UWC and all vendor resource assignments using final quantities of equipment applied to selected locations in the CLB coverage area.

Task 5.2 – Develop Core Business Process Flows - Pass 1

UWC will conduct one (1) onsite workshops (supplemented by webinars as needed) with CLB personnel in order to develop the Core Business Process Flows. These efforts may be blended with other business process effort in the MDM contract in order to minimize the number of meetings with CLB staff. In addition, UWC will survey existing or related business work documentation developed by CLB staff on subsequent projects. This effort is a necessary component of a successful AMI project in order to maximize the use and benefits of the AMI and MDM systems. The core business processes UWC recommends for development are:

- Meter Change-Out Process
- AMI System Data QA Process
- Meter Provisioning Process
- Validation, Estimating, Editing (VEE) Process
- Billing Process
- Customer Inquiry and Response
- Non Pay Disconnect/Reconnect Process
- Move In/Out Process

Additional processes will be added as necessary and identified through the process flow development. This first pass will focus on the current state of each business process to clearly document how each respective process works today at CLB. For Pass 1, UWC will leverage information that was gathered during the Assessment and RFP development phases.

Assumptions: CLB will provide existing business process flow and identify pertinent team members that are most appropriate to participate in discussion of process change, along with other key personnel for participation in each workshop. CLB resources will work with UWC to create the core business process flows. Ultimately, CLB owns these business processes, but it is UWC's responsibility to guide CLB through this process and ensure that these deliverables are created in a timely manner consistent with the published PEP.

Deliverables: Updated documentation of core business process flows listed above

Task 5.3 – Develop Meter Configuration Specifications (Alpha Phase)

UWC will guide CLB and the respective Vendors through the development of the meter configuration specifications for the gas and water meters. Once approved by CLB, each respective configuration will be communicated to the Vendor for inclusion in the actual meters and devices from the factory if required, or the data will be used in field programming using handheld programming tools.

Assumptions: CLB will assign a single person to work with UWC PM on this assignment. This work may overlap tasks in Phase 4.

Deliverables: Meter Configuration Document

Task 5.4 – Develop Mass Meter / Equipment Change-Out Plan (Alpha Phase)

Field replacement of selected meter equipment and endpoints will occur during the Beta phase. UWC will work with the Installation Contractor and CLB to develop the plan underlying meter equipment change-out and endpoint deployment. The plan will also outline the process for updating the CIS with new meter and meter device specifications, out reads, GPS determinants and other device specific data and information. Consideration must be given to both the change out processes associated with a small quantity of test meters in Alpha, but also the larger quantities of meter exchanges associated with Beta as well as the full project deployment. The change-out processes developed will be tested and optimized in the POC, and will ultimately be used in full deployment.

Assumptions: CLB will assign a single person to work with UWC PM on this assignment. This work may overlap some of the integration activities in Phase 4 and also the implementation plan in 5.1. However, this document should represent the granular processes and procedures that will be followed to insure data integrity throughout the project.

Deliverables: Equipment Change-Out plan with supporting process documentation

Task 5.5 – Develop Field Equipment Quality Assurance Plan (Pre-Beta)

Prior to commencement of the Beta phase, UWC will work with the Installation Contractor to develop the necessary processes to accurately disperse, track, and report on the movement of equipment from warehouse through to installation. UWC will also work with the Installation Contractor develop a strategy and tracking method for the salvage or disposal of removed meters. To facilitate the resolution of billing questions and possible customer complaints, UWC with also work with the Installation Contractor to develop a plan for temporary storage and cataloging of removed meters.

Keys to project success include the accurate recording and timely delivery of serial numbers, out reads, interval data and various meter parameters, geographic co-ordinates, digital pictures, and install notes to the appropriate departments and systems at CLB. UWC will work with CLB and the Installation Contractor to develop a strategy and processes for tight control and swift processing of this data to ensure a smooth transition to billing with AMI data. UWC will conduct training for appropriate CLB personnel in the use of these processes and whatever tools are required.

Assumptions: CLB will assign a single resource to work with UWC and the Installation Contractor on this assignment. This work builds on activities in 5.1 and 5.5 to insure that CLB resources are fully prepared to engage in Beta field activities and all parties engaged in the equipment change process have an understanding of performance and quality requirements.

Deliverables: Equipment Change-Out plan with supporting process documentation

Task 5.6 – Develop a Comprehensive Test Plan (SAT, Integration Testing, and UAT)

Critical to evaluating the success of the AMI POC and whether CLB objectives are met is the plan and methodology for testing the installed product. Testing will include:

- System Acceptance Testing (SAT) or Functional Testing (aka unit testing, aka application testing) – Vendor conducted software testing to ensure agreed upon configuration (with or without modifications) is delivered and working to specification.
- Integration Testing – end to end testing across all software applications included in the system (i.e., AMI headend, MDMS, CIS, Customer Portal) to ensure data accuracy and timeliness. Testing to be collectively performed by the Vendors and CLB.
- User Acceptance Testing (UAT) – Customer led “real world” testing that validates that the system can support daily business and user requirements. It is not uncommon that new software will function as designed, but not as expected by the customer. Thorough UAT will capture inconsistencies and facilitate resolution. New and redesigned business processes are also tested during UAT.

UWC will review the proposed Vendor(s) test plan submittals related to System or Functional Testing as well as the Integration Testing proposed by vendors and the System Integrator. UWC and CLB will review for completeness as it relates to the requirements set forth in contracts and

work with vendors to supplement test plans as needed. In addition, UWC will lead UAT plan development in close collaboration with CLB and with support from vendor teams.

Based on those activities, UWC will produce:

- UAT Test Definition Document
- A comprehensive Test Management Plan for SAT, Integration Testing, and UAT

This uniform Test Management Plan will include pertinent use cases and test scripts, and a formal method for recording, compiling and reporting the test results. UWC will develop a defect reporting and tracking methodology to track those test results that fail and ensure resolution. The Test Management Plan will reference SAT, Integration Testing and UAT.

Assumptions: The work in this section related to on SAT and Integration Testing will be related to both Vendor Contract Negotiations and activities scheduled for the first few months of Alpha. Activities related to the UAT definition may span into the later stages of Alpha or the early stages of Beta. In all cases, there should be clear definition around Alpha Acceptance criteria to insure a safe transition to Beta.

While this section DEFINES all the testing requirements, the execution and management of the testing effort is conducted in Tasks 5.7, 5.9 and 5.11.

Deliverables: UAT Test Definition Document; Comprehensive Test Management Plan

Task 5.7 – Deploy Alpha POC

5.7a Oversee/Support Alpha POC Deployment

UWC will work with the AMI and MDMS Vendors to execute the POC implementation plan underlying the Alpha phase. Alpha deployment is generally conducted during the manufacturing lead times for ordered equipment. Tasks to include:

- Coordinate with the CLB to setup the Alpha Pilot Test Environment
- Coordinate delivery, inspection, acceptance, and installation of the computer hardware and related peripheral devices for setup of the AMI and MDM application platforms
- Coordinate the AMI and MDM software installation and configuration
- Coordinate the development and deployment of each respective system integration including CC&B.
- Coordinate the acquisition of equipment and deployment of the AMI backhaul infrastructure in preparation for the Beta Pilot phase

A quality gate exists at the end of the Alpha phase outlining the objective acceptance criteria to signify the completion the Alpha phase and commencement of the Beta phase.

5.7b Oversee/Conduct Integration Testing

UWC will oversee and execute the Test Plan. Specifically, UWC will:

- Ensure the test plan is communicated to CLB and Vendor test teams and understood prior to execution of the specified tests
- Coordinate scheduling and execution of the testing
- Monitor and document test results
- Establish a defect tracking process and train the test team
- Monitor defects/problems reported by the test team, facilitate assignment of problems for resolution, and ensure retest by the test team

Assumptions: At its discretion, CLB may choose to defer some aspects of integration testing until the beta phase of the project.

Deliverable: UWC will review integration test cases and validate test results for the Alpha and Beta phases.

Task 5.8 – Develop Core Business Process Flows – Pass 2

UWC will conduct workshops onsite with CLB personnel in order to develop the Core Business Process Flows (supplemented by webinar as needed). This effort is a necessary component of a successful POC in order to maximize the use and benefits of the AMI and MDM systems. The core business processes UWC recommends for development are:

- Meter Change-Out Process
- AMI System Data QA Responsibility Matrix
- Meter Provisioning Process
- Validation, Estimating, Editing (VEE) Process **
- Billing Process
- Customer Inquiry and Response
- Non Pay Disconnect/Reconnect Process
- Move In/Out Process
- On Demand Communication Process
- Review System Analytic Reports

This will be the second of three onsite business process workshops that are planned for the development of the Business Process Flow. This second pass will focus on the development of the future state of each business process utilizing the new business applications (MDM system, AMI headend, AMI Infrastructure and AMI Meters) and the interfaces that will be deployed (AMI/MDM and MDM/CIS). UWC will also lead the CLB team in the creation of an AMI System Data QA Responsibility Matrix during the business process development. This matrix will identify CLB process owners, priorities, and the schedule for various reports, alarms and events.

Two additional processes have been added for Pass 2 of the business process flows. These include: On Demand Communication Process, which addresses the business application of the two way communication functions associated with the AMI Endpoint, and System Analytic Reports, which will address the advanced (non-billing related) functions enabled by the MDM. CLB wishes to define the operational impact of these new functions as a result of the AMI/MDM implementation.

Deliverables: Updated documentation, including any modifications made to the business process flow as a result of the second round of discussions.

*** CLB at its discretion, may choose to use the use the VEE Business Process documentation created by the MDM vendor in the discovery phase of the MDM implementation.*

Task 5.9 – Deploy Beta POC

UWC will work with CLB, the AMI and MDMS Vendors, the Installation Contractor and the Integration Contractor to execute the Beta Phase. Tasks to include:

- Finalize the Beta pilot deployment area (approximately 1000 meters)
- Coordinate the mass meter/meter equipment change out for natural gas meters/meter endpoints (approx.. 1,000) and Signal Hill water meters/meter endpoints (approx. 50)

Changes to the core business processes are tested during the Beta phase with the goal that these processes be completely debugged and usable before the production stage of deployment begins. This is to ensure that users are provided enough time to become familiar and proficient with the new business processes prior to mass deployment. During the Beta phase, additional functionality is added and tested in manageable stages as training is provided to the user community. .

Task 5.10 – Develop Training Plan (For Alpha and Beta Phases)

Benefits of the new systems cannot be realized without effective training of CLB personnel. . UWC will review the proposed AMI and MDM Vendor’s training plan submittals for completeness. UWC may recommend additional Business Process Training and other forms of End User Training to supplement vendor system training. UWC will create an overall project training plan that will reference: At a minimum, the following training plan :

- AMI Headend Overview Training (Sensus)
- AMI Infrastructure Training (Sensus)
- AMI Endpoint Programming Training (Sensus)
- MDM System Overview Training (Harris)
- Installation Tools and Process Training (UPA)
- Business Process Training (UWC/CLB)
- End User Training (UWC/CLB)

UWC will work with the Vendors and CLB to identify the participants for each session and establish the proposed training schedule over the course of the Alpha phase and the Beta phase. The plan will include clear training objectives. The goal is for CLB employees to have a high degree of operational readiness for full deployment.

Assumption: UWC will validate and participate in vendor training activities through a reasonable appropriation of the project management budget.

Deliverable: Comprehensive, integrated training plan including all vendor (AMI/MDM/Installation/Integration) systems and supplemental business process and end user training.

Task 5.11 - Manage User Acceptance Testing (Beta Phase)

UWC will oversee the User Acceptance Test as called for in Test Plan developed in subsequent activities. Specifically, UWC will:

- Ensure the test plan is communicated to CLB test team and Vendor support teams and understood prior to execution of the specified tests
- Identify and communicate to CLB and vendors who has the lead in the development of test scenarios and test scripts
- Coordinate scheduling and execution of the testing
- Monitor and document test results
- Monitor defects/problems reported by the test team, facilitate assignment of problems for resolution, and ensure retest by the test team

Assumption: CLB will create a team of users to develop and perform User Acceptance Testing to ensure final acceptance of the system(s) being deployed.

Deliverable: Report summarizing User Acceptance Testing efforts and results.

Task 5.12 – Manage and Support User Training

Effective and timely training for CLB personnel is critical to success of the project. UWC will coordinate the timing and delivery of on-site Vendor training during the Alpha phase and coordinate with CLB regarding the availability, suitability and readiness of a training environment. Some level of vendor overview training will occur during Alpha for the core project team members as identified in the vendor contracts. UWC may recommend additional End User Training during the Beta phase. This will reinforce the team's knowledge and ownership of the newly deployed system.

Once the Core Business Process development is complete, UWC will work with the process owners to develop additional business process training documents as needed to provide users with a comprehensive understanding of how to use the AMI and MDM systems within the context of CLB day-to-day business operations.

Assumption: Under guidance from UWC, CLB will create any specific process training documentation based upon the business process documentation created in 5.8, the vendor training delivered in 5.12 and results of UAT referenced in 5.11. UWC will manage this task using labor from PM budget.

Deliverable: UWC will provide a report summarizing activities conducted in 5.12 along with recommendations on further process development and operational readiness.

Task 5.13 - Develop Core Business Process Flows - Pass 3

The third of three onsite business process workshops (supplemented by webinar as needed) scheduled with CLB. This effort will focus on finalizing the future state of each business process utilizing the new business applications (MDM system, AMI headend, AMI Infrastructure and AMI Meters) and the interfaces that will be deployed (AMI/MDM and MDM/CIS). It will also review the “as-configured” processes as a final documentation of what ultimately is implemented into the operational environment. More information will be available to the process owners to understand how each system is configured during the Beta Phase so to refine and finalize each core business process.

Upon completion of the core business process workshops, UWC will supply CLB with documentation of each of the core business processes and the Data QA Responsibility Matrix. This documentation will serve as a valuable reference for CLB personnel who will be responsible for oversight and maintenance of these processes and as a training tool for new employees.

Assumptions: CLB and UWC will consider this third round of process flows the “As Built” documentation for this phase of the project.

Deliverable: Final documentation of business process flows, considered the “As Built” system functionality.

Task 5.14 – Field Deployment Mobilization Plan

Utiliworks will work with CLB and the installation vendor to coordinate the development of a Field Deployment Mobilization Plan for Phase 6 full deployment. This plan will detail processes for: supply chain, contract employee protocols, field operation activities, warehouse functions, training, local hiring requirements, etc.

Assumptions: CLB and UWC agree that aspects of this work may overlap with work associated with Task 5.1 and the installation contractor’s Standard Operating Procedures and proposed deployment plans. In general, UWC will provide a Quality Assurance function over the field deployment to insure that CLB and Contractor activities are adequately defined and measured.

Deliverable: Field Deployment Mobilization Plan and Report summarizing activities in this Task along with any recommendations.

Phase 6 – Full Project Deployment

It is estimated that the Full Deployment will take eighteen months after a notice to proceed is issued to the contractor. The timeline for Utiliworks involvement in this Phase is estimated to be twenty (20) months to allow some time for project closeout processes.

The primary goal during this phase of the project is to complete the full deployment of smart meters including: daily field activity, setting routes, activity verification, customer outreach,

scheduling appointments, billing coordination, CORIX manual read coordination, and employee payroll/administration. UWC will support CLB in three major areas listed below:

	Phase 6 – Full Project Deployment
Task 6.1	Full Deployment Oversight
Task 6.2	MDM Web Portal Integration Coordination
Task 6.3	Documentation of Operational Procedures

Task 6.1 – Full Deployment Oversight

Upon CLB acceptance of the POC and approval to proceed, Utiliworks will provide structured project management to ensure that all project components are executed in a timely, organized fashion and completed to the project definition and expectations. As communication is a critical success factor, the UWC Project Manager will work to make sure that all designated CLB team members are aware of project status and issues.

Project Management activities include: maintaining the overall project schedule; work with all project participants to monitor progress and adjust the work plan as needed to stay on schedule; facilitate regular project progress and other meetings; create project status reports as required with input from CLB; and, track project budgets. UWC will also track this task order to ensure UWC work stays within scope. In the event there is a change to the scope of this task order and initiate change orders for approval by the CLB if required.

Managing project deliverable timeliness, quality, and project costs are measures of success and satisfaction. As such, UtiliWorks delivery methodology employs a quality monitoring process whereby senior management within the Service Delivery Organization will monitor all timeliness, quality and project costs adherence to ensure success in all areas.

UWC will oversee and guide CLB through full deployment of the remaining meters, meter equipment and AMI infrastructure. Tasks will include, but are not limited to:

- Project Initiation – UtiliWorks will hold an on-site kickoff meeting with stakeholders and project team members (including vendor partners) to review the full deployment scope, timeline, communications plan and housekeeping items
- UWC will coordinate bi-weekly meeting to review installation plan schedule and address issues
- Smart meter installation information must be integrated with CC&B. UWC will coordinate this process and address issues as necessary
- Data Monitoring and Troubleshooting – UWC will assist CLIENT in monitoring the data transmitted from the meters/endpoints to identify issues that may occur when new meters/endpoints are installed
- Weekly Team Meetings – UWC will oversee weekly meetings with all project team members. UWC will coordinate with CLIENT and vendors to ensure all key personnel are in attendance.

Task 6.2 – Customer Web Portal MDM Integration Coordination

UtiliWorks will assist CLB in deployment of the MDM Customer Portal. Tasks will include:

- Develop a strategy for rolling out the customer portal to the CLB customers once the meters and endpoints have been deployed
- Review the customer portal test plans from the MDM VENDOR to ensure the application will be adequately tested to meet CLB requirements
- Coordinate scheduling and execution of the test scripts specified in the test plans
- Monitor testing and ensure the test results are documented
- Facilitate customer portal training for CLB team

Task 6.3 – Documentation of Operational Procedures

UtiliWorks will assist CLB in documenting key operational procedures to ensure the AMI/MDM capabilities are being utilized correctly by the CLB team. The procedures will be developed by CLB and UtiliWorks during the course of the full deployment implementation.

Phase 7 – Optional As-Needed Services

With the size and complexity of the Long Beach AMI implementation project, it is understood the project plan and associated tasks may change. To address the potential need to add currently unspecified tasks, CLB and UWC agree the best approach is developing a service scope based on need using an hourly rate. The rate structure provided below details the costs for different levels of UWC employees that may be needed for additional work. Any additional work will first be detailed by the City and provided to UWC to develop the estimate. UWC will provide an estimated cost showing the type of positions needed to complete the task, the number of hours necessary by position, and the total overall cost. CLB will review and approval all additional service scopes prior to any commencement of work.

As-Needed Services Rate Schedule

Billing Title	Description	Full Hourly Rate
Associate	Technical Research Analyst	\$75
Associate	Assistant Project Manager	\$75
Consultant I	Business Analyst	\$110
Consultant I	Project Manager	\$110
Consultant I	Consultant	\$110
Consultant II	Business Analyst	\$155
Consultant II	Project Manager	\$155
Consultant II	Consultant	\$155
Consultant II	Public Relations Specialist	\$155
Senior Consultant	Software Developer	\$185
Senior Consultant	Communications Engineer	\$185
Senior Consultant	Senior Business Analyst	\$185
Senior Consultant	Senior Project Manager	\$185
Principal Consultant	Principal Consultant	\$215
Principal Consultant	Senior Systems Engineer	\$215
Executive Consultant	Executive Consultant	\$275

EXHIBIT “B-1”

Rates or Charges

Schedule of Contract Values

UWC SOW v5

Definitions:

PM=Project Manager

AM=Account Manager

SME=Subject Matter Expert

Travel Charges:

Travel is estimated at \$1500 per man-trip; however, it will be billed at 'actual cost' according to the procedures outlined in the current contract. Man-trip estimates are provided for each phase. Actual trips required may vary; however, total travel costs usually range between 12-15% of the labor charges for a multi-year AMI/MDM implementation project.

Phase 4 – Vendor Contract Negotiations

Phase 4 labor is estimated with 572 project hours by Utiliworks Consulting. **CLB elects a firm, fixed fee pricing option of \$114,400 for this Phase** based on a blended rate of \$200 per hour for the estimated labor. The PM/AM hours are based on ½ FTE (80 hours per month) for three months—targeted for July, August and September. The actual hours may be more or less than estimated, but the fee for this task is fixed. Travel Costs estimate for this phase: 8 man-trips.

	Phase 4 – Contract Negotiation Deliverables	Est SME hours	Est PM/AM hours
Task 4.1	Review Vendor Contracts and Develop Statements of Work: AMI, MDM, Integration, Installation contracts	180	
Task 4.2	Update and Ratify Project Charter	20	
Task 4.3	Project Execution Plan (PEP)	40	
Task 4.4	Develop Signal Hill Water Project Approach	40	
Task 4.5	Validate Signal Hill Water Project Costs	20	
Task 4.6	Onsite Project Kickoff Meeting	16	
Task 4.7	Onsite Systems Integration Workshop (1 day)	16	
	PM and Executive Account Mgt (total for all tasks)		240

Phase 4 Fee billing schedule

Task	Billing Milestone	Value	Base Monthly Billing (PM/AM)
	Mobilization (10%)	\$11,400	
Task 4.1	Approved Sensus and MeterSense SOW, Price Schedule and acceptance criteria	\$20,000	
Task 4.1	Approved UPA SOW, Price	\$8,000	

	Schedule and acceptance criteria		
Task 4.1	Support Integration Contract Development	Included in PM	
Task 4.2	Update and Ratify Project Charter	\$8,000	
Task 4.3	Project Execution Plan (PEP)	\$8,000	
Task 4.4	Develop Signal Hill Water Project Approach	\$8,000	
Task 4.5	Validate Signal Hill Water Project Costs	\$3,000	
Task 4.6	Onsite Project Kickoff Meeting	Included in PM	
Task 4.7	Onsite Systems Integration Workshop (1 day)	Included in PM	
	PM and Executive Account Mgt (total for all tasks)		\$48,000 / 3 = \$16,000 per month level billing from July-2014 through Sept-2014

Phase 5 – Proof of Concept

Phase 5 labor is estimated at 2240 hours by Utiliworks Consulting. The PM/AM hours are based on 3/4 FTE (120 hours per month) for ten months. **This phase will be a Not-to-Exceed billing of \$488,800 based on a blended rate of \$200 per hour.** Both UWC and CLB acknowledge that the actual labor may be more or less than estimated. If UWC forecasts indicate the actual labor may exceed the estimate, we will advise CLB and request a change order if appropriate. Travel Costs estimate for this phase: 25 man-trips.

	Phase 5 – Proof of Concept	Est SME hours	Est PM/AM hours
Task 5.1	Develop POC Implementation Plan - Alpha and Beta	80	
Task 5.2	Core Business Process Flows – Pass 1	60	
Task 5.3	Develop Meter Configuration Specifications	40	
Task 5.4	Develop Mass Meter / Equipment Change Out Plan	40	
Task 5.5	Develop Field Equipment Quality Assurance Plan (Installation Contractor Centric)	40	
Task 5.6	Develop Test Plan For SAT, Integration	60	

	Testing, and UAT		
Task 5.7	Deploy Alpha POC	200	
Task 5.8	Core Business Process Flows – Pass 2	60	
Task 5.9	Deploy Beta POC	240	
Task 5.10	Develop Training Plan	80	
Task 5.11	Manage and Support User Acceptance Testing	160	
Task 5.12	Manage and Support User Training	80	
Task 5.13	Core Business Process Flows – Pass 3	60	
Task 5.14	Field Deployment Mobilization Plan	40	
	PM and AM/Executive (Total for all tasks)		1200

Phase 5 Billing Schedule

Note: Billing Milestones are associated with hard deliverables in the SOW. They will only be billed when complete and accepted by the client. CLB and UWC acknowledge that many of these deliverables require collaboration and performance by third party vendor contracts. In consideration of this approach, UWC and CLB agree to fixed monthly payment based on estimated PM/AM/SME hours across the 10 month project duration.

	Phase 5 – Proof of Concept Deliverables	Billing Milestone	Base Monthly Billing (PM/AM/SME)
Task 5.1	Develop POC Implementation Plan - Alpha and Beta	\$16,000	
Task 5.2	Core Business Process Flows – Pass 1	\$12,000	
Task 5.3	Develop Meter Configuration Specifications	\$8,000	
Task 5.4	Develop Mass Meter / Equipment Change Out Plan	\$8,000	
Task 5.5	Develop Field Equipment Quality Assurance Plan	\$8,000	
Task 5.6	Comprehensive Test Plan For SAT and Integration and UAT	\$12,000	
Task 5.7	Deploy Alpha POC	(inc in PM)	
Task 5.8	Core Business Process Flows – Pass 2	\$12,000	
Task 5.9	Deploy Beta POC	(inc in PM)	
Task 5.10	Develop Training Plans	\$16,000	
Task 5.11	Manage and Support User Acceptance Testing	\$32,000	
Task 5.12	Manage and Support User Training	(inc in PM)	
Task 5.13	Core Business Process Flows – Pass 3	\$12,000	
Task 5.14	Field Deployment Mobilization Plan	\$8,000	
	PM and AM/Executive (All tasks)		\$344,000 / 10 = \$34,400 per month level billing from Oct-

			2014 through July-2015
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Phase 6 – Full Project Deployment

Phase 6 labor is currently estimated at 1600 hours by Utiliworks Consulting. This estimate only includes PM/AM hours based on ½ FTE or 80 hours per month for the three general areas in 6.1 thru 6.3. Phase 6 is primarily for support of the full deployment and few deliverables can be identified at this time. It would be anticipated that additional SME activity will be needed as these needs are defined, resulting in using “as needed” services budgeted in Phase 7. Therefore, the labor estimated using a blended rate of \$200 per hour is \$320,000, which is proposed as a level billing schedule over 20 months. (18 months installation and 2 month project close out). Travel Cost estimate for this phase: 15 man-trips.

Phase 6 – Full Project Deployment	
Task 6.1	Full Deployment Oversight
Task 6.2	MDM Web Portal Integration Coordination
Task 6.3	Documentation of Operational Procedures

Phase 6 Billing schedule. \$16,000 per month for 20 months. (\$320,000 / 20)

Phase 7 – Optional As-Needed Services

With the size and complexity of the Long Beach AMI implementation project, it is understood the project plan and associated tasks may change. UWC has included an allowance of \$342,600 for these “as needed” services. Work in Phase 7 is not authorized without a formal change request. The following guidelines must be followed if a change request is created.

CLB and UWC agree that the best approach for developing change requests is based on need using an hourly rate. The rate structure provided below details the costs for different levels of UWC employees that may be needed for additional work. Any additional work will first be detailed by the City and provided to UWC to develop the estimate. UWC will provide an estimated cost showing the type of positions needed to complete the task, the number of hours necessary by position, and the total overall cost. CLB must review and approve all additional service scopes prior to any commencement of work.

Billing Title	Description	
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Associate	Assistant Project Manager	\$75
Consultant I	Business Analyst	\$110
Consultant I	Project Manager	\$110
Consultant I	Consultant	\$110
Consultant II	Business Analyst	\$155
Consultant II	Project Manager	\$155
Consultant II	Consultant	\$155
Consultant II	Public Relations Specialist	\$155
Senior Consultant	Software Developer	\$185
Senior Consultant	Communications Engineer	\$185
Senior Consultant	Senior Business Analyst	\$185
Senior Consultant	Senior Project Manager	\$185
Principal Consultant	Principal Consultant	\$215
Principal Consultant	Senior Systems Engineer	\$215
Executive Consultant	Executive Consultant	\$275