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Retail Water and Sewer Rate Study

Contract Authorization

Work proposed under this Task Order falls under the existing contract for rate consulting services between Lighthouse Utility Consulting, Inc. (Lighthouse) and the City of Hollywood, FL (City) authorized by Resolution R-2015-250.

Project Understanding

It is our understanding that the City requires a Retail Water and Sewer Rate Study Analysis and Report. The Retail Water and Sewer Rate Study Analysis and Report will include an evaluation of the projected revenues and expenses of the water and sewer enterprise fund and will result in an updated financial plan for the water and sewer utility. The updated financial plan will then be used to develop a schedule of updated monthly water and sewer rates and charges which will support the utility financial plan while being sensitive to customer impact for utility customers – within the confines of standard rate-making practice and the management goals of the water and sewer utility.

The Retail Water and Sewer Rate Study Analysis and Report will result in an updated schedule of monthly fixed and flow-based retail water and sewer rates. However, the Retail Rate Study Analysis and Report will specifically exclude the development of bulk/wholesale water/sewer rates, miscellaneous charges, industrial pretreatment charges, reuse rates and reserve capacity charges. The overall financial plan of the water and sewer utility will incorporate projected revenue from these sources, however, as this is part of the City's revenue stream. Proposed tasks for the Retail Rate Study Analysis and Report are presented in the pages which follow and are as follows:

- ✓ Task 1 - Revenue Sufficiency Analysis
- ✓ Task 2 - Cost of Service Analysis
- ✓ Task 3 - Rate Design Analysis
- ✓ Task 4 - Report, Presentations and Model Delivery

The sections below outline each task associated with this project and the associated project schedule and compensation.

Task 1 – Revenue Sufficiency Analysis

Purpose

In order to determine the appropriate rates for the City's Water and Sewer Enterprise Fund we will first conduct a revenue sufficiency analysis. The revenue sufficiency analysis results in a projection of revenue requirements for the water and sewer utility over a 5-year forecast period such that all the required operating expenses, debt service, minor and major capital expenses and transfers can be funded with the various reserves, revenue, including rate revenue, of the system. Additionally, the revenue sufficiency forecast will identify any additional rate revenue required to maintain the annual reserve levels and debt service coverage requirements that the utility desires as a management policy or has agreed to maintain as part of any outstanding debt instruments. While the primary focus of the revenue sufficiency analysis will be for a 5-year forecast period for purposes of rate development, we

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will also provide a long-term revenue sufficiency analysis which incorporates the City's long-term CIP for up to a 30-year forecast period.

Key Objectives of the Revenue Sufficiency Analysis will include:

- ✓ A utility financial plan which results in the following for the water and sewer utility:
 - Generation of sufficient revenues to fund costs and meet management goals
 - Maintenance of adequate reserve levels
 - Maintenance of adequate annual debt service coverage
 - Ability to fund major and minor capital projects
 - Projection of new debt required to fund major capital projects
 - Reconciliation of all fund balances and proposed capital project funding
 - Comparison of certain key financial parameters (Fitch Ratings 10 C's) with the Utility's projected financial results

Approach

Our approach to the development of the revenue sufficiency analysis will include the incorporation of the City's operating and capital budgets, bond and State Revolving Fund (SRF) loan obligations, customer growth assumptions, and other assumptions into the Rate Model.

After a review of the pertinent data and the development of the initial revenue sufficiency analysis we will meet with the City to review the data in detail, and to review the initial revenue sufficiency results using the live, interactive revenue sufficiency model where we can change data/variables and instantly see the results with staff. It is expected that during that meeting we will determine what data should be examined further and refined as needed. In addition, the meeting to review the initial revenue sufficiency results will allow us to refine certain assumptions in the model with staff. After refining the data, assumptions and calculation algorithms in the revenue sufficiency model we will meet with the City a second time for a thorough review of the data, analysis and results of the revenue sufficiency model so that we can develop a series of alternative revenue sufficiency scenarios for the City in that second meeting. The City can then provide direction with regard to which one revenue sufficiency scenario we should use in the development of the next phases of the Rate Study – the Cost of Service and Rate Design phases.

Tasks

Tasks we will accomplish in the Revenue Sufficiency Analysis phase are as follows:

1. Kickoff meeting/Project initialization
2. Rate Model initialization with the water and sewer utility data including:
 - a. Fund balances from latest Comprehensive Annual Financial Report
 - b. Line Item Revenue and Expense Operating Budget
 - c. Detailed Capital Improvement Program (CIP)
 - d. Existing Debt Service from Latest Official Statement and SRF loans

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- e. Assumptions related to growth, new debt, reserve requirements, and other pertinent assumptions
3. Interactive financial plan development with customized Rate Model up and running on large screen for entire team to review
4. Two (2) data and scenario analysis meetings with the team to review/refine data and test the sensitivity of the analysis to alternative assumptions, such as:
 - a. Alternative rate plans
 - b. Alternative capital improvement programs
 - c. Alternative capital project funding plans

With the rate revenue requirement determined in the Revenue Sufficiency Analysis, the manner in which that rate revenue should be recovered can now be determined. The next section, Cost of Service Analysis, sets forth our plan for the development of this determination.

Task 2 – Cost of Service Analysis

Purpose

The recovery of utility rate revenue requirements in a manner which is fair and equitable is essential in the development of utility rates. In order to provide guidance to the utility as to how to appropriately recover the rate revenue requirements identified in the Revenue Sufficiency Analysis, a Cost of Service Analysis is required.

The process employed in the Cost of Service Analysis results in the identification of the cost to provide service to customers, by service (water/sewer) and further by customer class (residential, commercial, industrial, etc.). These cost allocations are then used as the basis for the assignment of revenue requirements to customer classes, upon which the development of rates and charges is based.

Key Objectives of the Cost of Service Analysis will include:

- ✓ Identification of specific customer classes and demand characteristics
- ✓ Allocation of revenue requirements to specific customer classes in accordance with generally accepted rate-making practice

Approach

Our approach to the development of the Cost of Service Analysis for the City will utilize industry standard cost of service approaches. The two most common approaches to the development of a cost of service analysis are based on the Base-Extra Capacity methodology, as detailed in the American Water Works Association (AWWA) M1 Manual – Principles of Water Rates, Fees and Charges and the Functional Cost Allocation methodology, as detailed in the Water Environment Federation (WEF) Manual 27 – Financing and Charges for Wastewater Systems. Our analysis will employ these methodologies

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Specifically, we will approach the development of cost of service allocations under both the Base-Extra Capacity and Functional Cost Allocation methodologies. Those methods will require us to: 1) identify the costs by functional cost category, 2) allocate the functionalized costs further to cost categories and then 3) allocate rate revenue requirements to customer classes based on the distribution of costs and customer characteristics.

The resulting allocation of revenue requirements will provide guidance to us which, combined with the other goals and objectives of the utility, will provide the necessary information required to proceed to the development of utility rates and charges by customer classes.

Tasks

Tasks we will accomplish in the Cost of Service phase are as follows:

1. Kickoff meeting/Data review
2. Rate Model initialization with financial record metrics and utility billing data metrics, including:
 - a. Specific billing data metrics from billing system, such as customer counts and flow by customer class
 - b. Cost Allocation Parameters for Line Item Expense Operating Budget
 - c. Cost Allocation Parameters for Detailed Capital Improvement Program (CIP)
 - d. Cost Allocation Parameters for Existing Debt Service from Latest Official Statement and SRF loans
 - e. Operating statistics
3. Initial development of Cost of Service Analysis
4. One (1) interactive meeting to discuss data, assumptions and initial cost of service results with interactive cost of service model up and running on large screen for entire team to review

The Cost of Service Analysis results in the identification of rate revenue requirements by customer class which will then be used in the Rate Design phase.

Task 3- Rate Design Analysis

Purpose

Utilities consider a variety of factors in establishing rates, including cost allocation, customer impact, conservation of resources and ease of administration. The purpose of the rate design process is to find the balance between the need to recover sufficient revenue in a fair and equitable manner, and the need to do so within the constraints of other objectives which are unique to each utility. By understanding the types of customers served by the utility, and the general usage characteristics of those customers, a system of rates and charges can be developed that balances those many objectives while also generating sufficient revenue to fund system costs and maintain appropriate reserve and debt service coverage levels.

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Key Objectives of the Rate Design Analysis will include:

- ✓ Rates that result in fair and equitable recovery of utility costs by service and customer characteristics
- ✓ A rate plan designed according to AWWA/WEF rate-making principles and standards
- ✓ Rates that will be easy to administer and understand
- ✓ Determination of the customer impact of each of the rate structure alternatives
- ✓ Generation of revenue sufficient to operate the system
- ✓ Benchmarking analysis which will compare the proposed rates to those of surrounding, comparable utilities

Approach

Our approach to the development of water and sewer rates and charges will be to incorporate the results of the Revenue Sufficiency Analysis, Cost of Service Analysis and rate design goals of the City into the Rate Design Analysis in a manner which appropriately balances water and sewer funding requirements, fair and equitable cost recovery, conservation of resources and management goals

We will develop a series of rate design alternatives which will be reviewed with staff in interactive rate design meetings where we can change assumptions with regard to elasticity of demand, conservation rate blocks, fixed and flow charge levels and other rate determinants. In these interactive rate design meetings, we will refine the rate design scenarios such that up to 3 alternative rate design scenarios may be presented to the City for consideration. Upon a determination by the City as to which rate design alternative is to be implemented, we will produce a final rate design scenario to be incorporated into the final rate study report.

Tasks

Tasks we will accomplish in the Rate Design phase are as follows:

1. Kickoff meeting/Data review
2. Rate Design Model initialization with:
 - a. Rate revenue requirement targets from Cost of Service Analysis
 - b. Utility billing data
 - Utility billing data will be tested to determine whether it falls within acceptable tolerances for rate-making purposes. This scope assumes one such billing data test. In the event additional tests are required due to problems with the billing data, it is assumed that each additional test will require an additional 40 hours of effort at our standard hourly rate. The scope and price presented herein includes a contingency amount for a second billing data test which we have included in the pricing for Task 3 and have noted in our summary pricing table. In the event that this second billing data test is not required this contingency amount will not be billed.

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3. Review of existing rate structure with City Commission to document the Commissioners views on the current rate structure
4. Comparable utility rate benchmarking
5. Two (2) Interactive meetings to discuss data, assumptions and rate design results
6. Interactive rate design with customized Rate Model up and running on large screen for entire team to review

The Rate Design Approach and Tasks presented herein specifically excludes the development of budget rates, which are typically designed based on each customer's unique characteristics which involves a more detailed rate design analysis that the standard analysis proposed herein.

Task 4- Reports, Presentations and Rate Model Delivery

Purpose

The purpose of reports and presentations is to transmit the information gained during the course of the Rate Study in an easy to understand, but comprehensive, format. Stakeholders must understand the results of the study, including how the proposed rates differ, why they differ and how that will impact the monthly bills of customers. For staff, the rate study report must clearly present the data, assumptions and results in a manner which allows for a thorough review and understanding of why the proposed rate and finance plan is the best option for the City.

Key Objectives of the Report and Presentations activities will include:

- ✓ A comprehensive retail rate study report which provides clear results with supporting documentation, and:
 - Retail Water and Sewer Rate Tables, and supporting documentation, for a 5-year period
 - Retail Water and Sewer Summary Projected Financial Results for up to a 30-year forecast period
- ✓ Presentations that provide clear results in an easy to understand format for stakeholders, including the City Commission

Approach

Our approach to the delivery of reports and presentations is to build consensus among utility stakeholders during the course of the study. Therefore, when we enter the reporting and presentation phase of our studies there are no surprises to stakeholders. By engaging our clients as active participants during the analysis phase we can avoid the typical surprises associated with reports that are often encountered with other, less communicative forms of utility rate consulting.

Deliverables

Lighthouse will provide the following Reports and Presentations:

- ✓ Rate Study Report and Presentations, including:
 - Revenue Sufficiency Report Section

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- Cost of Service Report Section
- Rate Design Report Section
- ✓ Comprehensive Rate Study Model, in Microsoft Excel format, which presents the results embodied in the Rate Study Report
- ✓ Up to two (2) presentations/meetings to City Manager and Commission
- ✓ Rate Tables for inclusion in the City's Water/Sewer Rate Ordinance

Project Schedule, Compensation and Additional Services

Project Schedule

Pending availability of required data and City staff, Lighthouse will complete this analysis within 180 days of notice to proceed.

Project Compensation

Consistent with our contract with the City, work conducted for this Task Order will be on an hourly rate basis. Our hourly rate for this project is \$187. Our estimated project cost for this Task Order is presented in the table below, by Task. As always, our proposed fee is inclusive of any administrative/travel costs associated with the scope presented herein.

Task	Hours	Rate	Cost
Task 1 - Revenue Sufficiency Analysis	156	\$ 187	\$ 29,172
Task 2 - Cost of Service Analysis	128	187	23,936
Task 3 - Rate Design Analysis ¹	226	187	42,262
Task 4 - Report, Presentations and Model Delivery	108	187	20,196
Total	618		\$ 115,566

Additional Services

Services not specifically included under the Tasks section for each of the services described herein will be provided as requested by the City on an hourly rate basis at \$187 per hour.

¹ Task 3 – Rate Design Analysis hours and cost presented in this table assumes a second billing data test which may not be required if the initial billing data test results in a determination that the billing data from the City is adequate for rate-making purposes. In the event that a second billing data test is required, the assumed pricing to conduct the second billing data test, included in the pricing for Task 3 above, is \$7,480 (40 hours @ \$187 per hour). This amount will not be billed if no second billing data test is required.