RAFTELIS

Utilities Rate Study

RFP 2019-07 / PROPOSAL / JULY 25, 2019

Boulder City

RAFTELIS

July 25, 2019

Mr. Paul Sikora
Purchasing Manager
City of Boulder City
401 California Avenue
Boulder City, NV 89005

RE: Proposal for Utilities Rate Study (RFP 2019-07)

Dear Mr. Sikora,

Raftelis is pleased to submit this proposal to conduct a comprehensive electric, water, wastewater, and solid waste rate study for the City of Boulder City (City). We appreciate the opportunity to submit this proposal, which details our project approach to meet the City's objectives and our qualifications and experience within the utility industry.

To assist the City with these services, we are proposing a project team with unparalleled experience and a reputation for quality service. Our team combines financial experience coupled with an engineering perspective to assist the City in addressing the challenges it faces. Tom Beckley will serve as Project Manager ensuring that the project stays on schedule, is within budget, and effectively meets the City's objectives. Mr. Beckley has 17 years of experience with Raftelis providing financial and rate consulting services to water, wastewater, and solid waste utilities across the United States. Tom Sullivan will serve as a technical resource and subject matter expert for the electric component of this engagement. Mr. Sullivan has more than 30 years of experience providing similar services to electric utilities throughout the United States. Collin Drat will provide financial consulting support for the engagement and has been integrally involved in engagements of a similar size and complexity. I will serve as Project Director on the project, providing oversight and ensuring it meets both Raftelis and industry standards. I have more than 40 years of experience providing similar services to clients throughout the United States and Canada.

We believe that our unique combination of qualifications and extensive experience will ensure an efficient and successful project for the City. Some of the reasons we believe that our project team is uniquely qualified to provide these services to the City are:

Depth of Resources. With more than 100 utility financial, rate, and management consultants, we have the largest utility financial and management consulting practice in the nation. In addition to our dedicated project team, all of our staff will be available to provide support for this project as necessary. Our depth of resources will ensure that the City's objectives for this project are met.

Experience. Our firm has assisted more than 500 utilities across the United States and conducted thousands of studies for our clients. In the past year alone, we provided advisory services to municipally-owned utilities in 38 states and conducted more than 400 studies. The majority of these projects have included the development of comprehensive financial plans covering operations and maintenance expenses, financing of asset management and capital improvement programs, determination of the cost of serving the utility's customer classes, and design of rate structures that meet the pricing objectives of the community. Many of our projects include collaboration with stakeholder committees such as the City's Utility Advisory Committee.

Industry Leadership. Our staff is involved in shaping industry standards by chairing and actively participating in various committees within the American Water Works Association (AWWA). We have written one of the leading books on water and wastewater rate studies, *Water and Wastewater Financing and Pricing: The Changing Landscape*, and co-authored other industry standard books, such as AWWA's *Manual M1, Principle of Water Rates, Fees and Charges (Manual M1)* and the Water Environment Federation's (WEF) *Manual of Practice No. 27, Financing and Charges for Wastewater Systems*. We are also responsible for AWWA's biennial national *Water and Wastewater Rate Survey*.

Modeling Experts. We have developed some of the most sophisticated yet user-friendly financial planning/rate models available in the industry. These models are decision support tools that allow us and our clients to examine different policy options and their financial/customer impacts in real time. Our models are custom-built for each client in a cost-effective manner to ensure alignment with the client's financial and accounting structure and the functionality desired by each client. In a workshop environment, we are able to use our models to quickly review impacts of changes to different parameters, determine which policy option is feasible, and reach a consensus quickly.

Registered Municipal Advisor. As required by the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank), we are registered as a Municipal Advisor under the rules of the U.S. Securities and Exchange Commission (SEC) and the Municipal Securities Rulemaking Board (MSRB). As such, the City can be confident that the advice we will provide as part of this project, in particular recommendations on capital financing using debt, will be in compliance with applicable federal laws and regulations and that we will meet the operating standards covered by the regulations.

We are proud of the resources that we offer and welcome the opportunity to work with your staff to meet the objectives of the City. Please do not hesitate to contact me by phone at 816.285.9022 or by email at wstannard@raftelis.com if you have any questions.

Very truly yours,

William G. Stannard
Chairman of the Board

3013 Main Street
Kansas City, MO 64108

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Scope of Services

TASK 1

Project Initiation and Data Review

The key outcomes of Task 1 are a plan for project delivery, which effectively and efficiently meets the needs of the City for this engagement, and an in-depth understanding, on the part of the Raftelis team, of the operations of each of the utilities and the relevant data needed for the study. To achieve these outcomes, we will conduct an on-site Kick-off Meeting with City staff.

Prior to the Kick-off Meeting, we will review the data provided by the City (an initial data request list is included at the conclusion of this section of our proposal). Providing the necessary data in advance will allow us to begin framing preliminary analyses, formulate any questions, and come fully prepared to discuss any issues. Additionally, we will provide a Kick-off Meeting package that contains the meeting agenda and presentation materials to guide the discussion. Even though we may request additional data or clarification as the study progresses, we will minimize the additional data requests and will strive to balance the time and effort required to provide the data with the relative impact it has on the analysis.

During the Kick-off Meeting, we will work with City staff to confirm the project schedule and key deliverables. Additionally, we will conduct interviews with City staff to obtain a thorough understanding of the current financial, operational, regulatory, and political environment for each utility. We will also review the City's current rates versus other comparable communities and lead a preliminary discussion with City staff regarding potential adjustments to align the rates with the City's pricing objectives.

Task 1 Meetings:

- Project Kick-off Meeting in Boulder City

Task 1 Deliverables:

- Kick-off Meeting presentation
- Kick-off Meeting summary memorandum

TASK 2

Stakeholder Engagement

The most important outcome of any stakeholder engagement process is for participants to feel that have been heard and that they can support the policy decisions surrounding electric, water, sewer, and solid waste rates. Ideally, participants in the process will become advocates for the recommendations of the study because they played a critical role in shaping them.

As noted in the City's Request for Proposals (RFP), Task 2 will involve members of the Boulder City City Council and the recently established seven-member Utilities Advisory Committee (UAC).

We anticipate meeting with members of the City Council at the outset of the study. Near the completion of the study, we may meet with the City Council a second time to provide an update on the progression of the study and seek feedback on the preliminary recommendations. For the UAC, we anticipate meeting monthly throughout the course of the study. These meetings would focus on providing updates on both the general progression of the study as well as how the preliminary results align with the objectives established at the outset of the project.

The approach to engaging both groups is two-fold: first, we will work collaboratively with City staff to overview the operations of each utility and the industry standard process that will be followed to develop the ultimate recommendations; second, will seek feedback from both groups regarding what they view as the key objectives of the study so that they can be incorporated throughout the course of the study.

The overview will be in the form of a high-level Ratemaking 101 style presentation that walks participants through the financial planning, cost of service and rate design process for each utility. The feedback component will involve a Pricing Objectives Exercise. There are many trade-offs involved in the establishment of various potential electric, water, wastewater, and solid waste rate structures. Accordingly, we have found that it is beneficial to establish rates around a set of foundational principles, which can provide a rationale for the rate structures employed to recover utility costs. The Pricing Objectives Exercise asks participants to rank the different competing objectives associated with various rate design options. The results from each individual ranking are summarized and discussed, providing us with a sense of what the priorities of the City's key stakeholders are.

We will tailor this exercise to the specific vision, mission, and core values of the City, as identified in the City of Boulder City Strategic Plan 2020-2025, focusing on how the financial and operational sustainability of the utilities supports the broader objectives of the City as a whole. For example, Goals A (Achieve Prudent Financial Stewardship), B (Invest in Infrastructure) and C (Manage Growth and Development) have clear implications for the City's utilities. Given the key role utility infrastructure plays in City life, achieving these objectives at the utility level will be critical to achieving them in the City as a whole.

Below is a sample pricing objectives scorecard

Classification	Rank Total	Objective
Most Important	1	Conservation/Demand Management
	2	Financial Sufficiency
	3	Rate Stability
Very Important	4	Revenue Stability
	5	Equitable Contributions from New Customers
	5	Affordability to Disadvantaged Customers
Important	7	Cost of Service Based Allocations
	8	Minimization of Customer Impacts
	9	Simple to Understand and Update
Least Important	10	Defensibility
	11	Ease of Implementation
	12	Economic Development

Task 2 Meetings:

- Ratemaking 101 and Pricing Objectives Meetings with City Council members and UAC
- Financial Plan Review Meeting with UAC
- Cost of Service Study Review Meeting with UAC
- Rate Design Review Meeting with UAC
- Preliminary Results Review Meeting with City Council members (if desired)

Task 2 Deliverables:

- Presentation materials: meeting, agenda, and summary
- Memorandum for each meeting

TASK 3

Comprehensive Electric, Water, Wastewater, and Solid Waste Utility Financial Plans

The first step in establishing utility rates is to determine the level of rate revenue required to support the operations of each utility. This includes operating expenses as well as critical replacements and refurbishments to the utility systems to ensure reliable service can be provided. Once the overall revenue requirement is determined for each utility in total, we will determine the cost to serve each customer class (e.g., residential, commercial, industrial) individually based on the demands they place on each utility system.

To determine the revenue requirement, we will develop a financial plan that compares projected revenues under existing rates to projected expenditures and identifies the level of revenue necessary to ensure reliable service can be provided in a financially sustainable manner. Utility financial plans are typically established for a multi-year forecast period of 5 to 10 years. To the extent that the necessary operating and capital data are available, or large costs loom beyond this window, we can develop longer forecasts (e.g., more than 20 years), as desired by the City.

We will structure rate adjustments to achieve the City's strategic financial management objectives and maintain alignment with best financial management practices regarding debt service coverage ratios and reserve balances.

Task 3 is comprised of four subtasks:

- A forecast of baseline revenues (Task 3.1)
- A forecast of operating and capital expenditures (Task 3.2)
- Utility cash flow forecasts and recommended rate revenue adjustments (Task 3.3)
- A summary of the revenue requirement for each utility (Task 3.4)

Task 3.1 – Forecast of Baseline Revenues

We will develop projections of revenues under existing rates for each utility. This will serve as a baseline for revenues if no adjustments to rate levels or structures are made.

Accurately forecasting revenues is one of the biggest financial planning challenges faced by utilities because there are several unforeseeable factors that can affect usage. A particularly rainy or dry season, unforeseen population growth or decline, and commercial and industrial customers moving in and out of the City's service area can have a dramatic effect on usage. The biggest risk involved in such projections is overstating the amount of billed usage, which results in unit rates that are too low to recover the revenue requirement. We will evaluate historical trends in customer growth and per customer usage by utility and will develop appropriate assumptions for future growth in customer accounts and per customer usage.

We will then calculate the revenues under current rates at projected consumption levels and compare them to the operating and capital expenses forecast in Task 3.2 to understand the magnitude of the potential shortfall under the existing rates.

Task 3.2 – Forecast of Operating and Capital Expenditures

We will forecast the annual operating and capital expenses for each utility. These will be compared against projected revenues under existing rates to determine any deficiencies that will need to be mitigated with a rate revenue adjustment.

Operating expenses will be based on the City's budget for each utility. To this budget baseline, annual inflationary adjustments will be made based on historical cost escalation, expected future inflation, City staff expectations, and our experience with similar utilities. In addition, any incremental costs associated with new personnel or programs will also be included.

Capital expenses will be developed based on the City's capital improvement program (CIP) for each utility. To the baseline projections of CIP costs, we will apply inflation factors based on the appropriate indices (i.e., Handy-Whitman, ENR, etc.). We will develop CIP financing plans that will provide a forecast for how the City will fund its capital improvement programs, including providing estimates of timing and amounts of any debt issuances that may be necessary.[1]

It is our understanding that the City will be developing an Asset Management Plan that will include a condition assessment of the City's water and sewer system assets, the development of a capital improvement program to prioritize replacement and refurbishment of those assets, and a maintenance program to optimize their life cycle. Given the parallel timeline for both projects, we will be prepared to incorporate any preliminary results from the Asset Management Plan into the water and sewer financial plans as well as update them as necessary.

Task 3.3 – Utility Cash Flow Forecasts and Revenue Adjustments

We will develop detailed cash flow forecasts for each utility over the multi-year planning horizon. These forecasts will compare existing revenues to forecast expenditures, identifying any deficiencies in funding under each utility's existing revenues. We will structure rate adjustments to achieve the City's strategic financial management objectives and maintain alignment with best financial management practices regarding debt service coverage ratios and reserve balances.

As part of the development of the utility financial plans, we will discuss the City's existing financial policies and objectives for each utility (formal and informal). These policies include types of reserves and reserve targets as well as debt service coverage ratios. Throughout these discussions, we will provide recommendations to ensure the City's financial management strategies align with industry best practices.

The revenue adjustments recommended as part of the financial plans will be driven by funding necessary operating and capital expenditures as well as achieving these strategic financial management objectives over the forecast period.

Task 3.4 – Comprehensive Electric, Water, Wastewater and Solid Waste Utility Financial Plans

In Task 3.4, we will develop comprehensive financial plans for each of the utilities incorporating forecasts of revenues under current rates as well as the forecast of operations and maintenance expenses and capital asset investments necessary to ensure reliable and resilient utility service. The revenue requirements of each utility will be forecasted for a 10-year planning period to provide the City with visibility into the needs of each utility, demonstrate that the long-term goals of City will be achieved, and facilitate the development of rate plans for each utility.

These will form the basis for the cost of service analysis performed as part of Task 4.

Task 3 Meetings:

- Virtual meeting with City staff to review draft financial plans, identify revisions in advance of UAC Review Meeting
- On-site meeting with UAC to review draft financial plans

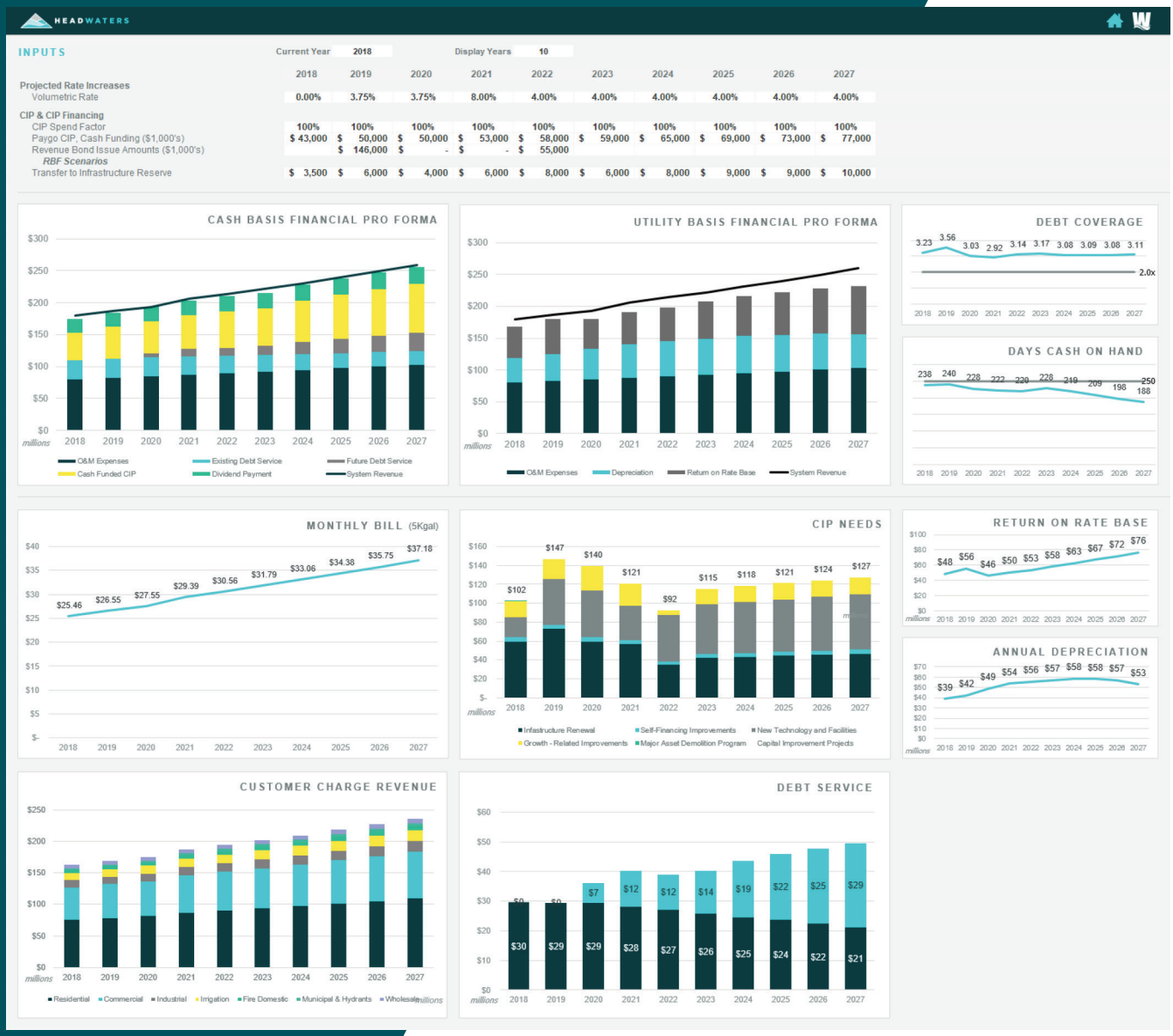
Task 3 Deliverables:

- Technical memorandum setting forth the Draft Electric, Water, Wastewater, and Solid Waste Financial Plans

[1] *Under the Dodd-Frank Wall Street Reform and Consumer Protection Act, all firms that provide debt issuance support services, including financial feasibility studies, must be registered with the U.S. Securities and Exchange Commission (SEC) and the Municipal Securities Rulemaking Board (MSRB) to legally provide official opinions and related services. Raftelis' registration allows our clients to be confident that Raftelis is fully qualified and capable of providing financial advice related to debt issuances in compliance with the applicable regulations of the SEC and the MSRB.*

Raftelis will develop a customized financial model for the City that incorporates a dashboard to allow you to easily run scenarios and see the impacts in real time.

Shown below is a sample dashboard that we developed for another project.



TASK 4

Cost of Service Analysis

As noted previously, Task 3 will determine the overall level of rate revenue required to support each of the four utilities. That said, the demands placed on the utility systems are not the same. Accordingly, it is appropriate to establish rates by customer class that recover that class' share of costs in proportion to their use of the system. The cost of service analysis we perform as part of Task 4 will identify the extent to which the revenues paid by each class align with the costs incurred by the utility to serve that class. To the extent that any variances between revenue generation and cost of service exist, we will make recommendations to reduce these gaps. Once class cost of service is established, we will design rates to recover costs by class in Task 5.

The cost of service analysis involves three steps. First, the revenue requirements summarized in Task 3 will be **functionalized** according to the activities performed by each utility to provide service to customers. Once costs have been functionalized, they will be further **allocated** according to cost drivers, which are the categories of customer demand that drive variation in the level of costs within each function. Once allocated, they will be **distributed** to each customer class proportionally based on that class' proportionate share of demand.

While the process outlined above will be similar for all four utilities, it will be tailored in each case to reflect the unique aspects of each utility system.

The *electric utility* incurs costs to purchase power and distribute it to customers. Typically, the cost of purchasing power from upstream providers is segregated from the cost of distributing it to customers. Purchased power costs are often included as periodic power cost adjustment (PCA) to the electric rates or completely unbundled as a separate charge (e.g., the City's current Purchase Power Rider) on a customer's bill. Once the cost of power supply is segregated, the remaining costs (i.e., the margin) are functionalized according to the assets used within the electric system to deliver power to customers. These typically include substations, conductors, transformers, services, and meters. Similar to the water utility, electric systems are designed with sufficient capacity to meet average and peak demand. Costs related to ensuring this capacity is available are (e.g., substations, conductors, and transformers) are segregated from those that are incurred on a per customer basis (e.g., services and meters). Similar to water and wastewater utilities, electric utility costs are distributed to customer classes based on each class' proportionate share of demand.

Water utility costs will be functionalized in accordance with the process used to treat and distribute water to City customers. Functional categories may include source of supply, treatment, transmission, distribution, storage, direct fire protection, meters and services, and billing. Once functionalized, water utility costs will be allocated according to cost drivers. The primary cost drivers for water involve delivering water to customers on an average day basis as well as a maximum day and maximum hour basis. These allocated costs would then be distributed to customer classes in accordance with each class proportionate share of demand.

Wastewater utility costs will be functionalized in accordance with the process used to collect, convey, and treat customer wastewater. Functional categories include collection mains, lift stations, interceptors, and primary and secondary treatment. Once functionalized, wastewater utility costs will be allocated according to cost drivers. The primary cost drivers for a wastewater utility are volume and strength. Volume-related costs are incurred to collect and convey customer sanitary flows as well as infiltration and inflow (I&I). Strength-related costs are incurred to physically and biologically treat customer wastewater prior to discharge. Once allocated, costs will be distributed to customer classes based on each class proportionate share of demand.

Operations for the *solid waste utility* are currently contracted out to Boulder City Waste Free (B.C. Waste Free), who has exclusive rights to collect solid waste, household hazardous waste, and recyclables within the City. B.C. Waste Free also operates the City-owned landfill. Currently, the costs of the contract operations as well as any capital costs associated with the City-owned landfill are recovered from residential customers via charges of $13.68 and $1.50 per month, respectively. Commercial customers are charged by B.C. Waste Free directly. During the course of the study we will compare the costs incurred to operate the solid waste utility against the revenue generated by the two charges and make recommendations to improvement alignment between the two.

Once these allocations for each of the four utilities are complete, we will compare the allocated costs against the existing revenues generated by each customer class. This will provide insight into any imbalance between the costs incurred to serve specific customer classes and the revenue generated from the City's existing rate structures and will form the basis for the rate designs in Task 5.

Task 4 Meetings:

- Virtual meeting with City staff to review draft financial plans, identify revisions in advance of UAC Review Meeting
- On-site meeting with UAC to review cost of service analysis

Task 4 Deliverables:

- Technical memorandum presenting the cost of service analysis and comparison of the revenue generated by class with class cost of service

TASK 5

Rate Design

During Task 5, we will develop rate structure options that meet the City's objectives and equitably recover class cost of service for each of the four utilities.

This task involves three steps. First, we will identify which rate structures best meet the City's prioritized pricing objectives. As part of Task 2, we will seek feedback from the City Council and the UAC regarding the most important priorities to consider when developing the electric, water, wastewater, and solid waste rate recommendations.

Second, based on the results of the cost of service analysis, we will calculate proposed rates to address the City's prioritized pricing objectives. This will likely include two to three alternatives for each utility based upon the results of the pricing objectives discussion.

Finally, we will analyze the impact of the proposed rate alternatives on the City's customers. We will evaluate impacts both in terms of the average customer bill and relative to peer utilities. The project team will work with City staff to determine the most appropriate types of customers and peer utilities to use for the analysis of bill impacts. Depending on the availability of data, we can combine metrics from the Census Bureau (income quintiles and participation in government assistance programs) with information from the City (usage per customer, aged receivables, and shut-offs) to evaluate impacts throughout the City. This approach moves beyond using volumes as a proxy for affordability challenges (i.e., low volume equals low income) and evaluates the impacts on groups of vulnerable customers directly.

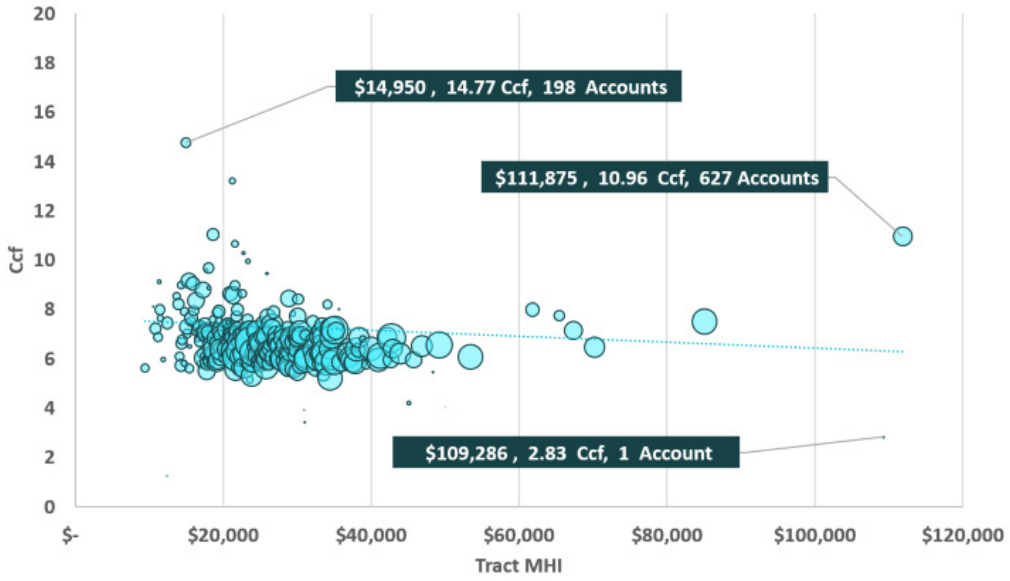
Task 5 Meetings:

- Onsite meeting in Boulder City to review rate designs and impacts

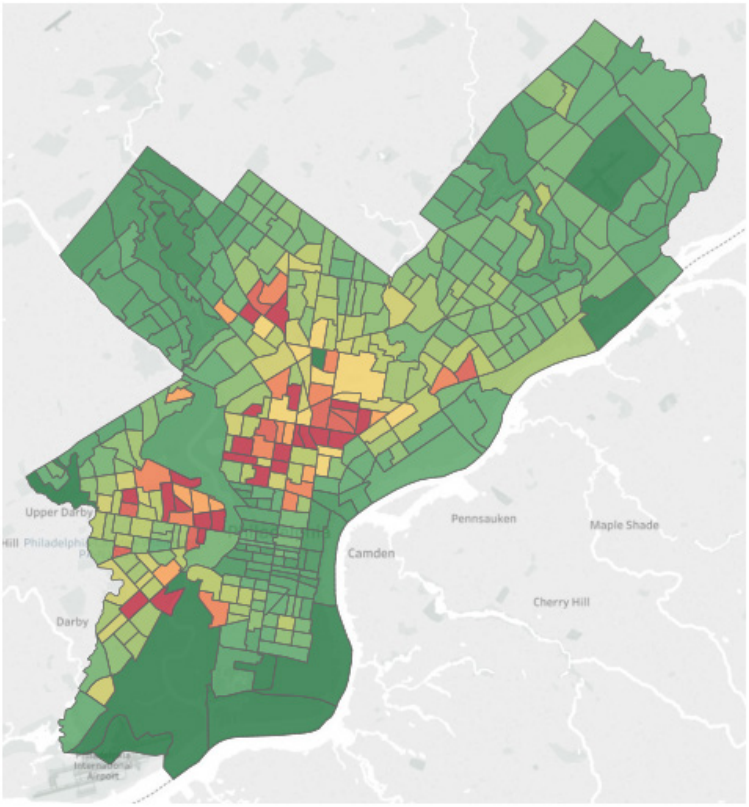
Task 5 Deliverables:

- Rate design options
- Analysis of bill impacts
- Benchmarking against comparable communities

Detroit Water and Sewerage Department: Usage per Account vs. Household Income



Philadelphia Water Department: Typical Bill as % of MHI (by Census Tract)



TASK 6

Rate Model Development

Raftelis will develop a rate model throughout the engagement to support the efforts in Tasks 3 through 5. The model will encompass three modules:

- **Financial planning**, which incorporates forecasts of revenues and expenditures into a detailed cash flow forecast, recommending rate adjustments as necessary to ensure financial sustainability (Task 3)
- **Cost of service**, which allocates costs to customer classes in proportion to the demands they place on each utility system (Task 4)
- **Rate design**, which recovers the level of revenues (in total and by class) through the development of rate structures that meet the City's strategic pricing objectives (Task 5)

This model will be non-proprietary and will be the property of the City at the conclusion of the study. It will be tailored around outputs from the City's financial, customer, and operational information systems, minimizing the need for City staff to adjust their data to 'fit' into the model. Finally, it will include a dashboard style presentation of key results, which will allow the user to quickly manipulate key inputs and view the impact on the outcomes that are most important for the City. Charts will indicate each utility's performance on key metrics such as reserve balances, debt service coverage ratios, and customer rate impacts. Errors and problematic results will be flagged throughout the model (and summarized, if desired) with conditional formatting to allow staff to readily identify any issues. We will work with City staff to ensure that the model we develop can serve as a decision support tool for the City going forward.

At the conclusion of the project, we will provide City staff with training on how to use and update the model for future financial planning and rate-setting needs.

Task 6 Meetings:

- Virtual meeting for model training

Task 6 Deliverables:

- Electric, water, wastewater, and solid waste utility financial planning, cost of service, and rate models

TASK 7

Reports, Meetings, and Presentations

Task 7.1 – Reports

Draft Report

The draft report will document the significant assumptions, findings, and recommendations of the study. This will include the rate development process and any recommended changes to the existing rate structures, and the reason for such changes, as well as presenting the results of the cost of service and rate study. The draft report will include an executive summary in addition to the detailed discussion of the study in the body of the report.

Final Report

We will incorporate City staff's comments on the draft report into a final report. Upon finalization of the report, the City will be provided with five bound copies of the final report and an electronic copy (in Microsoft Word and PDF format) of the report.

Task 7.2 – Meetings and Presentations

Based on our understanding of the City's needs for this project, we anticipate seven on-site meetings in Boulder City:

1. A project kick-off including the following meetings:
   a. Kick-off with City staff
   b. Ratemaking 101 and Pricing Objectives Meetings with UAC
   c. Ratemaking 101 and Pricing Objectives Meetings with individual City Council members (If desired)
2. Meetings with UAC to review:
   a. Financial plans
   b. Cost of service analysis
   c. Rate design
3. Presentation of study results to the City Council

In addition to the meetings identified above, we will meet virtually as necessary throughout the engagement.

Task 7 Meetings:

- On-site as identified in Task 7.2 above
- Virtual meetings as necessary throughout the study

Task 7 Deliverables:

- Draft and final reports
- Draft and final City Council presentation package

Other Supplemental Services as Identified by the City

If selected, we will work with the City to finalize the scope and fee for this project. As noted in the City's RFP, additional efforts may be required that were not included in the scope of services identified above, but that are necessary to complete the project. We propose including a contingency amount of $25,000 to cover any services in addition to those identified previously.

City of Boulder City Electric, Water, Wastewater and Solid Waste Rate Study

Data Request List

**Where possible, please provide information in electronic format (e.g. word, excel)*

***If necessary Raftelis can facilitate the transfer of detailed customer information (with confidential data removed) and create the necessary reports, eliminating the need to for the City to do so. We can discuss which strategy would be most efficient.*

Request #	Utility:	Type:	Description:	Frequency	Time Period
1	All	Financial	Detailed Operating Budgets and Actuals (revenues and expenditures)		Past 5 years
2	All	Financial	Multi-Year Capital Improvement Program (CIP)		Current
3	All	Financial	Debt service schedules showing both principal and interest payments for all outstanding utility debt obligations		Current
4	All	Financial	Description of any City Financial Management Policies for Utilities		Current
5	All	Financial	Current Unrestricted Cash Balance		End of Most Recent FY
6	All	Financial	Descriptions of any Restricted Cash Balances		Current
7	All	Financial	Listing of Projects Included in Construction Work in Progress		End of Most Recent FY
8	All	Financial	Detail Fixed Asset Listing Including Original Cost, Annual Depreciation and Accumulated Depreciation for All Utility Assets		End of Most Recent FY
9	All	Customer	Utility Rates by Classification		Past 5 years
10	Electric Specific	Customer	Number of Customers by Rate Classification and Meter Size	Monthly	Past 5 years
11	Electric Specific	Customer	Billed Usage by Customer Classification (kWh and kW)	Monthly	Past 5 years
12	Electric Specific	Customer Information**	Billed Usage by Customer Classification and Usage Tier (e.g. 0 - 2,000 kWh, 2,000 - 4,000 kWh etc.)	Monthly	Past 5 years
13	Electric Specific	Customer Information**	Individual Customer Meter Read Data by Customer Classification	Hourly or 15-min (if available)	Past 2 Years
14	Electric Specific	Customer Information**	Billed Usage (Energy and Demand) for Each Individual Customer Served Under Large General Service (LGS), Time of Use General Service (TOU-GS) and Boulder City Hospital (BCH) Rates	Monthly	Past 5 years
15	Electric Specific	Operations	Copies of all power supply and transmission agreements.		Current
16	Electric Specific	Operations	Copy of current power supply cost model and/or calculation of purchased power rider		Current
17	Electric Specific	Operations	Copies of all power supply and transmission bills for the last two years.		Past 2 years
18	Electric Specific	Operations	System peak demand and total energy requirements	Monthly	Past 5 years
19	Electric Specific	Operations	Number of transformers (in service and in inventory) by size (kVa)		Current
20	Electric Specific	Operations	Capacity (kVa) for each distribution and transmission substation		Current
21	Electric Specific	Operations	Miles of primary conductor for each voltage by size of conductor		Current
22	Electric Specific	Operations	Miles of secondary conductor by size of conductor		Current
23	Electric Specific	Operations	Number of service lines and quantity (feet or miles)		Current
24	Electric Specific	Operations	Current replacement cost for each size and type of light fixture currently used		Current
25	Water Specific	Customer	Number of Customers by Rate Classification and Meter Size	Monthly	Past 5 years
26	Water Specific	Customer	Billed Usage by Customer Classification and Meter Size	Monthly	Past 5 years

City of Boulder City Electric, Water, Wastewater and Solid Waste Rate Study

Data Request List

**Where possible, please provide information in electronic format (e.g. word, excel)*

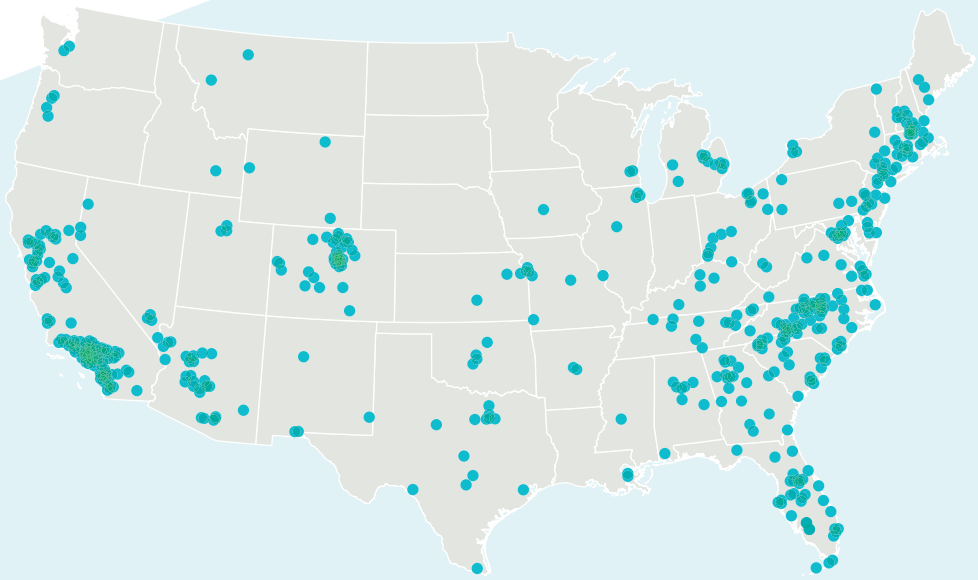
***If necessary Raftelis can facilitate the transfer of detailed customer information (with confidential data removed) and create the necessary reports, eliminating the need to for the City to do so. We can discuss which strategy would be most efficient.*

Request #	Utility:	Type:	Description:	Frequency	Time Period
27	Water Specific	Customer Information**	Billed Usage by Customer Classification and Usage Tier (e.g. 0 - 8kgal, 8 - 25kgal etc.)	Monthly	Past 5 years
28	Water Specific	Customer	Number of Public Fire Hydrants		Current
29	Water Specific	Customer	Number and Size of Private Fire Connections		Current
30	Water Specific	Financial	Rates Charged by Southern Nevada Water Authority for Potable Water and Raw Water	Annual	Past 5 Years and Currently
30	Water Specific	Operations	**Potable Water** Purchased from Southern Nevada Water Authority	Monthly	Past 5 years
31	Water Specific	Operations	**Raw Water** Purchased from Southern Nevada Water Authority	Monthly	
32	Water Specific	Operations	Maximum Daily Purchase of **Raw Water** from Southern Nevada Water Authority	Annual	Past 5 Years
33	Water Specific	Operations	Maximum Daily Purchase of **Potable Water** from Southern Nevada Water Authority	Annual	Past 5 Years
34	Water Specific	Operations	Miles of **Potable** Transmission and Distribution Mains by Broken Down by Pipe Diameter		Current
35	Water Specific	Operations	Miles of **Raw Water** Transmission and Distribution Mains by Broken Down by Pipe Diameter		Current
36	Wastewater Specific	Customer	Number of Customers by Rate Classification	Monthly	Past 5 years
37	Wastewater Specific	Customer	Billed Usage by Customer Classification	Monthly	Past 5 years
38	Wastewater Specific	Customer Information**	Billed Usage by Customer Classification and Usage Tier (e.g. 0 - 8kgal, 8 - 25kgal etc.)	Monthly	Past 5 years
39	Wastewater Specific	Customer Information**	Pounds of BOD and TSS Billed to High Strength Surcharge Customers (if any)	Annual	Past 5 years
40	Wastewater Specific	Operations	Influent Volumes Recieved at Wastewater Treatment Plant(s)	Monthly	Past 5 years
41	Wastewater Specific	Operations	Average and Maximum Influent Strengths (BOD, TSS) Recieved at Wastewater Treatment Plant(s)	Monthly	Past 5 years
42	Solid Waste Specific	Customer	Number of Customers by Classification	Monthly	Past 5 years

Experience

RAFTELIS HAS THE MOST EXPERIENCED UTILITY FINANCIAL AND MANAGEMENT CONSULTING PRACTICE IN THE NATION.

Our staff have assisted more than 1,000 utilities across the U.S., including some of the largest and most complex agencies in the nation. In the past year alone, Raftelis worked on more than 600 financial/organizational/technology consulting projects for over 400 water, wastewater, and/or stormwater utilities in 40 states, the District of Columbia, and Canada.



Raftelis has provided financial/organizational/technology assistance to utilities serving more than

25%

of the U.S. population.

This map and the matrix on the following page shows some of the utility clients that we have assisted.

National Experience

This matrix shows a sample of clients for whom we have performed similar services.

	Client	Water	Wastewater	Solid Waste	Electric
AL	Auburn, City of	●	●	●	
AR	Central Arkansas Water	●			
AR	Little Rock Water Reclamation Authority		●		
AZ	Chandler, City of	●	●	●	
AZ	Gilbert, Town of	●	●	●	
AZ	Marana, City of	●	●		
AZ	Peoria, City of			●	
AZ	Tucson Water	●			
CA	Livingston, City of			●	
CA	Monterey Park, City of			●	
CA	Ontario, City of			●	
GA	Municipal Electric Authority of Georgia				●
IA	Interstate Power and Light Company				●
IA	Mid American Energy (F/K/A Midwest Power)				●
IL	Bloomington, City of		●	●	
IL	Geneva, City of				●
IL	Indianapolis Power and Light Company				●
KS	Topeka, City of	●	●		
KS	Wichita, City of	●	●		
MI	Detroit Water and Sewerage Department	●	●		
MI	Flint, City of	●	●		
MI	Saginaw, City of	●			
MO	The Empire District Electric Company				●
MO	Metropolitan St. Louis Sewer District		●		
NE	Mid American Energy (F/K/A Midwest Power)				●
NC	Raleigh, City of	●	●	●	
NM	Aztec, City of	●	●		●
NV	Henderson, City of	●	●		
OH	Montgomery County Environmental Services	●	●	●	
PA	PJM Interconnection				●
RI	Providence Water Supply Board	●			
SC	Bamberg Board of Public Works	●	●		●
SC	Orangeburg, Department of Public Utilities	●	●		●
SC	Piedmont Municipal Power Agency				●
SD	Black Hills Power and Light Company				●
SD	Mid American Energy (F/K/A Midwest Power)				●
TN	Memphis, City of			●	
TX	Round Rock, City of	●	●		
VA	Suffolk, City of	●	●		
WA	Tacoma, City of	●	●	●	

On the following pages, we have provided detailed descriptions of three projects that we have worked on that are similar in scope to this project. We have included references for each of these clients and urge you to contact them to better understand our capabilities and the quality of service that we provide.

Little Rock Water Reclamation Authority

ARKANSAS

Reference: BJ Harrison, Controller
P: 501.688.1467 / E: billy.harrison@lrwu.com

In 2011, Raftelis was retained by Little Rock Water Reclamation Authority (LRWRA) to perform a comprehensive cost of service analysis and system valuation study. LRWRA was implementing a significant capital improvement program in compliance with a consent order with the State of Arkansas and the EPA to eliminate sanitary sewer overflows. The requirements of this consent order were placing substantial pressure on LRW's costs and wastewater rates and fees. The major components of the project included:

- Development of a 10-year comprehensive financial plan including LRWRA's operation, maintenance and administration, as well as financing of its major capital improvement program
- Determination of LRWRA's cost of providing wastewater service to its various customer classes
- Development of wastewater user rates to fairly and equitably recover the cost of providing wastewater collection, treatment, and disposal service from the various customer classes
- Review and update of miscellaneous fees
- Analysis of alternative system growth charges to be assessed new customers
- Determination of the current value of LRWRA's collection and treatment assets

In addition to the financial planning and cost of service aspects of this engagement, the Raftelis team worked closely with the LRWRA created Rate Advisory Committee (RAC). The RAC was made up of community leaders who were known and trusted by the customers of the LRWRA. At the outset of the engagement Raftelis explained the process and logic behind the financial planning and cost of service study approach. We also sought feedback from the RAC regarding the most important objectives that the community had for the wastewater rates. Throughout the engagement, we regularly engaged with the RAC to share updated on the process and seek additional feedback. At the conclusion of the engagement the RAC drafted a memorandum supporting the recommendations of the Study.

In 2015, LRWRA again engaged Raftelis to update the 10-year financial plans and cost of service analysis, including a scope of services similar to the 2011 study. Raftelis finalized the updated study and provided an updated financial planning model for the City's future use.

City of Lawrence

KANSAS

Reference: Mike Lawless, PE, Deputy Director of Utilities
P: 785.832.7862 / E: mlawless@lawrenceks.org

Raftelis completed a financial planning, cost of service and rate study for the City of Lawrence (City) in 2017. Critical to the financial planning component of the study was modeling the financial impact of the Wakarusa Wastewater Treatment Plant, which came online in 2018. This involved projecting the incremental operating and capital costs associated with constructing and operating the new plant, as well as developing a capital financing plan to provide funding.

In addition to the financial planning aspects of this engagement, Raftelis also performed a water and wastewater cost of service study, which identified the cost to provide service to the City's customer classes.

Finally, Raftelis developed alternative water and wastewater rate structures which meet the City's objectives for the utilities. Raftelis updated the existing rate structure and developed two additional structures designed to promote conservation.

In 2018, the City re-engaged Raftelis to update the study for the 2019 budget year. Raftelis staff worked closely with City staff to gather the necessary data, update the analysis and prepare City staff to present the results of the update the Lawrence City Commission. Raftelis staff are currently engaged in updating the Study for the 2020 budget year.

City of Suffolk

VIRGINIA

Reference: Al Moor, P.E., Director of Utilities
P: 757.923.3640 / E: amoor@city.suffolk.va.us

Raftelis has been assisting the City of Suffolk's (City) Department of Public Utilities (DPU) with financial services since 2003.

Raftelis' engagement with DPU addresses financial, accounting, and pricing issues confronting the City that impact its water and wastewater systems. The City provides retail water and wastewater service to approximately 21,000 accounts, as well as wholesale water to the Western Tidewater Water Authority (Authority). During the period that Raftelis has been engaged by the City, we have assisted the DPU in dealing with rapid growth in the early years of the engagement and in more recent years with the challenges of dramatically lower growth.

The scope of services provided to the City includes an annual update of the 10-year comprehensive financial plan, determination of water and sewer costs of service, development of proposed water and sewer rates for the upcoming fiscal year, and an assessment of the City's water and sewer system availability fees. In addition, Raftelis also conducts an annual true up analysis for wholesale water service to the Authority. The true up analysis recalculates the water rates using actual cost and water usage data to determine the actual cost of service to the Authority during the prior year.

As mentioned, Raftelis reviews and updates the City's availability fees using the marginal incremental cost method, as a part of this engagement. We work with the City and their engineers to identify the growth-related assets and associated capacity to determine an appropriate unit rate for new customers connecting to the system. We make adjustments as necessary to account for debt service, depreciation, and construction cost escalation to determine the City's availability fees for the water and sewer utilities.

Raftelis' long-standing engagement with the City has afforded the project team unique insight into the City's challenges and situation. Even though Raftelis has worked with City to develop rates and provide financial consulting services since 2003, we still begin each fiscal year with a face-to-face kick-off meeting to ensure the City and the Raftelis team understand the expectations regarding data needs and any unique challenges for that fiscal year. Additional face-to-face meetings are scheduled to review preliminary results, and interim meetings are handled via virtual conferencing software. As needed, our team is available for support at City Council presentations and other stakeholder meetings.

In addition to collaboration with utility staff in particular, we have worked closely, and often independently, with other City staff and numerous other parties including: the rate consultant and attorney for the Western Tidewater Authority, the City's wholesale customer Isle of Wight County, the City's engineering consultant, and the City's third-party billing provider Hampton Roads Utility Billing Service (HRUBS).

WHY Raftelis?

RAFTELIS IS ONE OF THE LARGEST AND MOST EXPERIENCED FIRM PROVIDING THESE SERVICES

Raftelis is a leader in utility stakeholder engagement.

Even the best plans cannot be implemented without community buy-in and support. As indicated in the City's Request for Proposals (RFP), the City understands the importance of a robust stakeholder engagement process. As noted in our qualifications, the project team has substantial experience partnering with utility stakeholders of various backgrounds. This includes governing boards, such as City Councils, and groups of industrial customers and rate advisory groups, such as Utility Advisory Committees (UAC). In addition to our financial and management consulting staff, Raftelis also has a team of dedicated strategic communication professionals. As issues arise, the City and project team can leverage the experience of this group to ensure that the City's messages are clearly and effectively communicated and that the concerns of the UAC are heard and addressed.

Raftelis has a broad range of expertise that can be leveraged to address unanticipated issues that may arise during the study.

As noted above, Raftelis is the largest and most experienced firm providing utility financial consulting services. That said, issues often arise during the course of a rate study that are not directly financial, but that still impact our client's ability to effectively serve their customers. To address these issues, we have expanded over time from our original financial consulting services to provide additional organizational and technological services. This expertise may be employed in a standalone fashion but is often used to complement or enhance the traditional financial consulting services we provide, often to address issues that were not anticipated but are nonetheless required to complete a successful financial consulting engagement.

The potential for such issues is clearly identified in the City's RFP (Other Supplemental Services as Identified by the City). One example is the availability of our strategic communications team, discussed previously. Another issue that often arises during the course of a rate study involves the copious amounts of customer data needed to perform the required analyses. For example, in the past we have been reliant on stock reports exported from our client's customer information system (CIS), which take a significant amount of time to produce but still yield a limited amount of information. However, through the assistance of our Data Services team, we are often able to access and analyze entire customer billing databases, reducing the time and effort required by the client, while providing us with the level of detail we need. This can be particularly important for an electric utility rate study where 15-minute interval meter reads can expand file sizes beyond what can be practically manipulated in Microsoft Excel. The broad knowledge of the Raftelis team will allow us to keep the study moving forward, even as issues arise.

Raftelis' consulting practice is focused on providing the services identified in the City's RFP.

While we have added additional service lines to address the needs of our clients over time, our primary focus remains the provision of the exact services identified in the City's RFP. This focus ensures the professional staff engaged on the City's study have the specialized experience necessary to meet the needs of the City and that we will provide independent and objective advice. Any qualified firm seeking to provide these services to the City will employ industry standard approaches and methodologies set by the American Water Works Association (AWWA), the Water Environment Federation (WEF), and the American Public Power Association (APPA) to perform the analyses needed for this engagement; however, our focus will ensure the City's rates not only align with standard practices, but are also structured to meet the unique challenges faced by the City.

How we stack up

26 years
serving the
utility industry

Our team includes

100+ consultants
focused on utility finance/
organization/technology

8 current and previous
AWWA and WEF committee
and division chairs

14 members of
AWWA, WEF, and NACWA
utility finance and management committees

Raftelis has provided financial/organizational assistance for

1,000+ water/wastewater/
stormwater/electric/solid waste
utilities

which serve more than

25% of the
U.S. population

and includes the utilities serving

33 of the nation's
50 largest cities

In the past year alone, we worked on

600+ projects
for **400+** utilities
in **40** states

REGISTERED MUNICIPAL ADVISOR

Raftelis is registered with the U.S. Securities Exchange Commission (SEC) and the Municipal Securities Rulemaking Board (MSRB) as a Municipal Advisor.

Registration as a Municipal Advisor is a requirement under the Dodd-Frank Wall Street Reform and Consumer Protection Act. All firms that provide financial forecasts that include assumptions about the size, timing, and terms for possible future debt issues, as well as debt issuance support services for specific proposed bond issues, including bond feasibility studies and coverage forecasts, must be registered with the SEC and MSRB to legally provide financial opinions and advice. Raftelis' registration as a Municipal Advisor means our clients can be confident that Raftelis is fully qualified and capable of providing financial advice related to all aspects of utility financial planning in compliance with the applicable regulations of the SEC and the MSRB.

A copy of our registration is included on the following page.

MSRB Registration - Form A-12: Preview

FIRM/SOLE PROPRIETORSHIP IDENTIFIERS

MSRB ID: K0666
Firm Name: Raftelis Financial Consultants, Inc.
Municipal Advisor SEC ID: 867-00475
CRD Number:
Legal Entity Identifier:

BUSINESS INFORMATION

Firm Address: 227 West Trade Street, Suite 1400
City: Charlotte State: NC Zip: 28202
Firm Website: www.raftelis.com

TYPE OF ORGANIZATION

Organization Type: Corporation City: Charlotte State: NC

BUSINESS ACTIVITIES

Municipal Advisor

☑ Issuance Advice

DESIGNATED CONTACTS

Master Account Administrator

Name	Phone	Email
Bart Kreps	(704) 936-4438	bkreps@raftelis.com

Primary Regulatory Contact

Name	Phone	Email
Bart Kreps	(704) 936-4438	bkreps@raftelis.com

Billing Contact

Name	Phone	Email
Matthew R Jackson	(704) 910-8194	mjackson@raftelis.com

Compliance Contact

Name	Phone	Email
Bart Kreps	(704) 936-4438	bkreps@raftelis.com

Primary Data Quality Contact

Name	Phone	Email
Anne Bryant	(704) 373-1199 Ext. 117	abryant@raftelis.com

Optional Regulatory Contact

Name	Phone	Email
PEIFFER A. BRANDT	(704) 936-4433	pbrandt@raftelis.com

Optional Data Quality Contact
No contact designated.

Optional Technical Contact
No contact designated.

Hourly Billing Rates

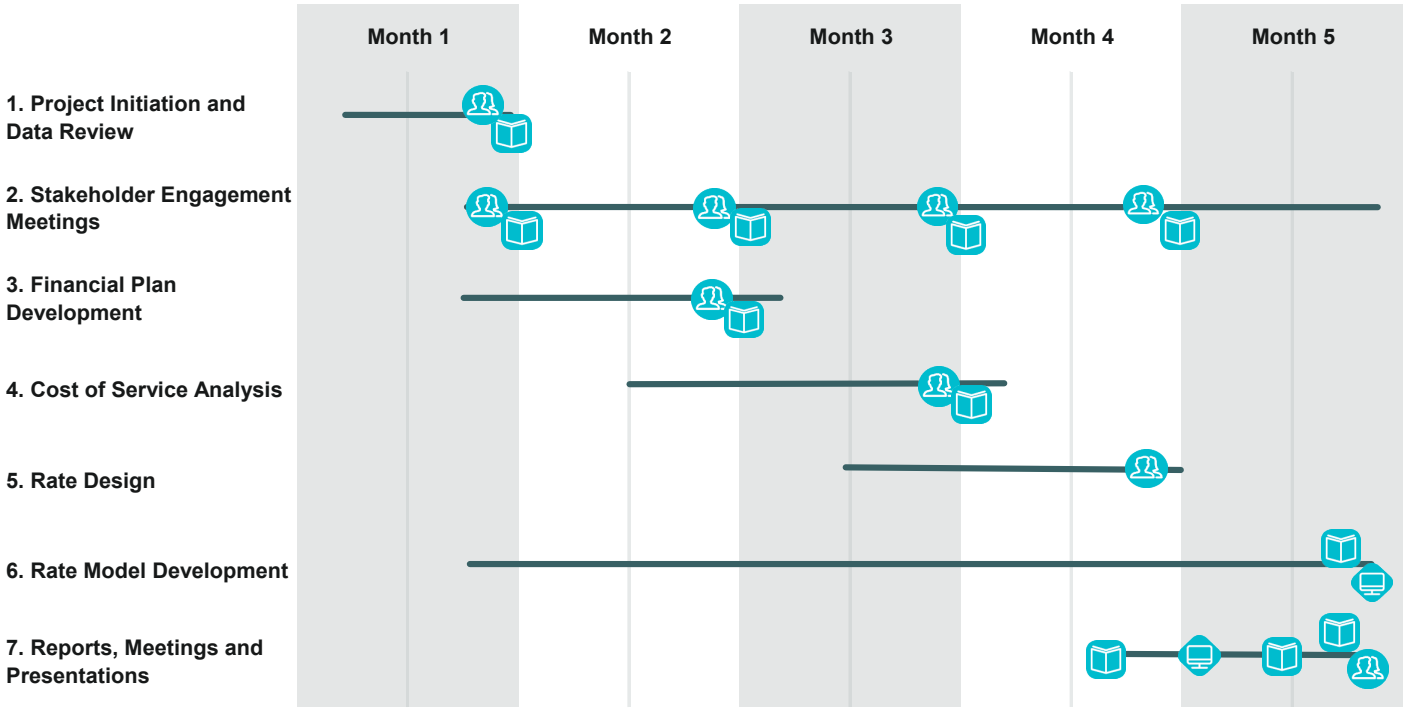
PERSONNEL	HOURLY BILLING RATE**
Bill Stannard (Chairman of the Board)	$425
Tom Beckley (Senior Manager)	$265
Collin Drat (Manager)	$240
Joe Collins (Consultant)	$185
Jeremy Halls (Associate)	$155
Tom Sullivan, Jr., PE (President)	$275
Administration	$80
Technology Charge*	$10

** Technology/Communications Charge – this is an hourly fee charged monthly for each hour worked on the project to recover telephone, facsimilie, computer, postage/overnight delivery, conference calls, electronic/computer webinars, photocopies, etc.*

*** For services related to the preparation for and participation in deposition and trial/hearing, the standard billing rates listed above will be increased by an amount up to 50%.*

Proposed Schedule

Raftelis is committed to completing the study by the end of Calendar Year 2019. The schedule below assumes that Raftelis will receive all of the necessary data in a timely manner and will be able to schedule meetings as necessary.



In-Person Meetings / Workshops

Web Meetings

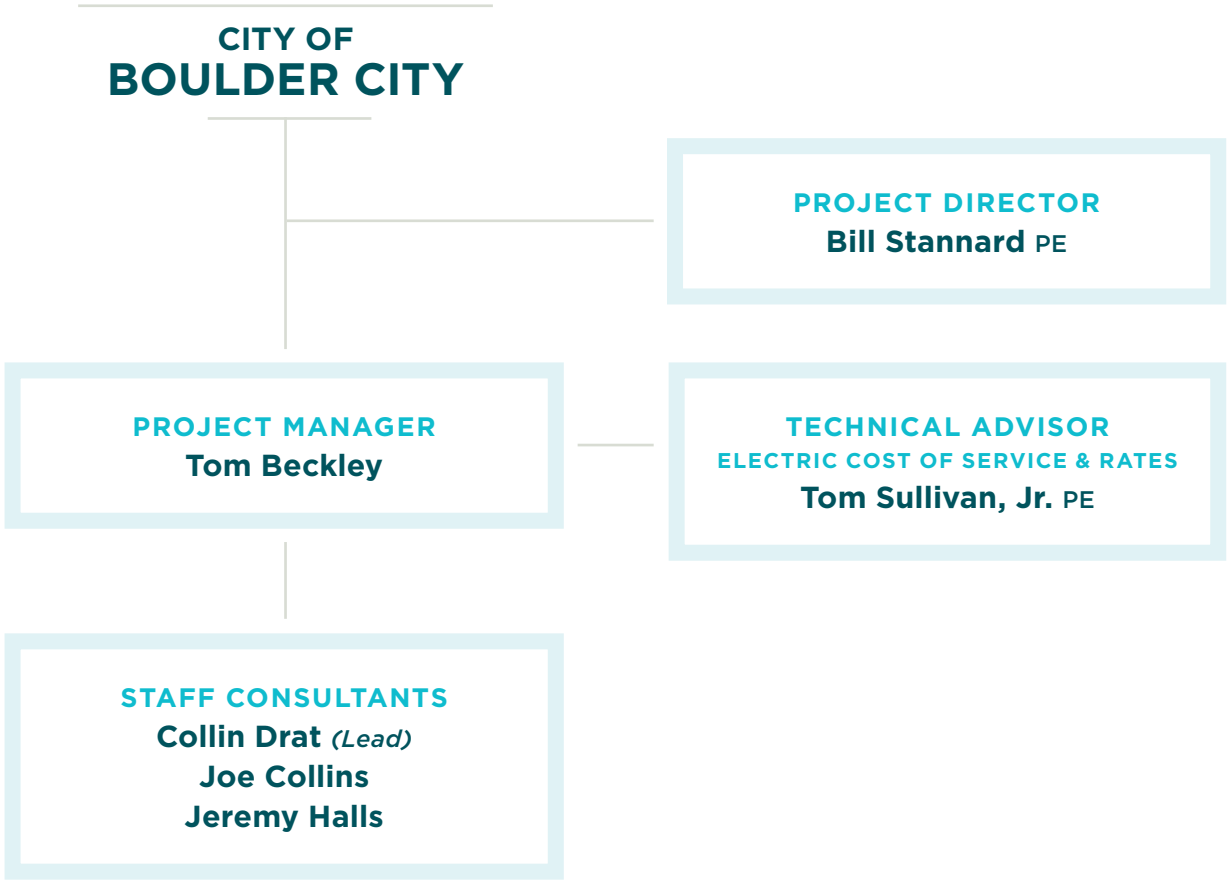
Deliverables

Project Team

WE HAVE DEVELOPED A TEAM OF CONSULTANTS WHO SPECIALIZE IN THE SPECIFIC ELEMENTS THAT WILL BE CRITICAL TO THE SUCCESS OF THE CITY'S PROJECT.

Our team includes senior-level leadership with support from talented consultant staff. This close-knit group has frequently collaborated on similar successful projects, providing the City with confidence in our capabilities.

Here, we have included an organizational chart showing the structure of our project team. On the following pages, we have included brief profiles and project roles for each of our team members, followed by detailed resumes.



Leading the industry

Raftelis staff shape industry standards for water and wastewater utility finance and management through our active leadership in AMWA, AWWA, WEF, and EPA. Leadership positions and projects for these organizations include:

AMWA

- Lead INSIGHT Survey

AWWA

- Asset Management Committee - 1 member
- Benchmarking Committee - 1 member
- Finance, Accounting, and Management Controls Committee - 2 members
- Management and Leadership Division - Chair and Vice Chair
- Public Affairs Council - Chair
- Rates and Charges Committee - Chair and 7 members
- Strategic Management Practices Committee - Chair
- Technical and Education Council - 1 Trustee
- Co-lead biennial National Water & Wastewater Rate Survey

WEF

- Finance and Administration Subcommittee - Chair
- Technical Practices Committee - 1 member
- Utility Management Committee - 4 members
- WEFTEC Conference Planning Committee - 1 member

EPA

- Environment Financial Advisory Board - 1 member

We wrote the book

Raftelis staff have co-authored many of the industry's leading guidebooks regarding water and wastewater financial and management issues, including:

- Affordability of Wastewater Service (WEF)
- Financing and Charges for Wastewater Systems, Manual of Practice 27 (WEF)
- Manual M1, Principles of Water Rates, Fees and Charges (AWWA)
- Manual M5, Water Utility Management (AWWA)
- The Effective Water Professional (WEF)
- Water and Wastewater Finance and Pricing: The Changing Landscape
- Water and Wastewater Rate Survey (conducted and published collaboratively with AWWA and Raftelis)
- Water Rates, Fees, and the Legal Environment (AWWA)

PROJECT DIRECTOR

Bill Stannard PE

Chairman of the Board

PROJECT ROLE

Will provide oversight for the project ensuring it is completed in a timely manner and meets both Raftelis and industry standards.

CAREER HIGHLIGHTS

- 45 years of experience
- Chair of the task force for development of WEF's *MOP No. 27, Financing and Charges for Wastewater Systems*
- AWWA: Past-Chair of the Management and Leadership Division, Former Trustee of the Technical and Education Council, Past- Chair and Current member of the Finance, Accounting and Management Controls Committee, current member of the Rates and Charges Committee
- Member of EPA's Environmental Finance Advisory Board
- Co-author of *Water and Wastewater Finance and Pricing: The Changing Landscape*
- Series 50 Municipal Advisor Representative
- Financial/rate consulting experience with Little Rock Water Reclamation Authority, Suffolk, Topeka, St. Louis MSD, Wichita, Northeast Ohio Regional Sewer District, & Detroit

PROJECT MANAGER

Tom Beckley

Senior Manager

PROJECT ROLE

Responsible for overall project accountability, leading the consulting staff in conducting analyses and preparing deliverables for the project, and serving as the City's main point of contact.

CAREER HIGHLIGHTS

- 18 years of experience
- Co-author of *Water and Wastewater Finance and Pricing: The Changing Landscape*
- Series 50 Municipal Advisor Representative
- Financial/rate consulting experience with Little Rock Water Reclamation Authority, Suffolk, Topeka, St. Louis MSD, Lee's Summit, Wichita, Kansas City Water Services Department, Madison, Milwaukee MSD, & Detroit

ELECTRIC COST OF SERVICE & RATES TECHNICAL ADVISOR

Tom Sullivan, Jr. PE

President

PROJECT ROLE

Will provide technical assistance and subject matter expertise on electric cost of service and rate issues.

CAREER HIGHLIGHTS

- 41 years of experience
- Electric/gas utility financial/management consulting experience with Orangeburg Department of Public Utilities (SC), Black Hills, SourceGas, Interstate Power and Light Company (IPL), Bamberg Board of Public Works (SC), Missouri Gas Energy; and Greenville Utilities Commission (SC), Pensacola Energy, Philadelphia Gas Works

LEAD CONSULTANT

Collin Drat

Manager

PROJECT ROLE

Will provide lead support in conducting analyses and preparing deliverables for the project.

CAREER HIGHLIGHTS

- 7 years of experience
- Presenter at AWWA/WEF Utility Management Conference, KSAWWA/KWEA Joint Annual Conference and NYAWWA Water Supply Symposium
- Financial/rate consulting experience with Suffolk, Aztec, Clarksville, Cookeville, Lawrence, Saginaw, Round Rock, Marquette, Topeka, Junction City, Marana Water, Detroit Water and Sewerage Department, Waukesha Water Utility, & Providence Water Supply Board

STAFF CONSULTANT

Joe Collins

Consultant

PROJECT ROLE

Will provide support in conducting analyses and preparing deliverables for the project.

CAREER HIGHLIGHTS

- 3 years of experience
- Served as an Energy Management Fellow for Bloomington Utilities (IN)
- Financial/rate consulting experience with Suffolk, Edgerton, North Kansas City, Perryville, Columbia, Saginaw, Allendale Townshop, Metropolitan St. Louis Sewer District, Detriot Water and Sewerage Department, & Little Blue Valley Sewer District

STAFF CONSULTANT

Jeremy Hall

Associate Consultant

PROJECT ROLE

Will provide support in conducting analyses and preparing deliverables for the project.

CAREER HIGHLIGHTS

- 1 year of experience
- Financial/rate consulting experience with Suffolk, Smithville, El Dorado, Alexandria, & Providence Water Supply Board

Bill Stannard PE

Project Director

Chairman of the Board

Mr. Stannard has more than 40 years of experience providing consulting services to investor- and municipally-owned utilities covering management, operation, economic, and financial matters. His extensive experience encompasses: formulation of financial systems and ordinances for compliance with regulations regarding the Clean Water Act and the Safe Drinking Water Act; comprehensive revenue requirements and cost of service studies; rate setting; consulting engineers and financial feasibility reports related to the sale of revenue bonds; financial feasibility analyses; organizational and management reviews; and utility competitiveness studies. He has served as an expert witness in rate litigation matters in federal and state courts and before arbitration panels and state public service commissions. Mr. Stannard has also served as an arbitrator in resolving water and wastewater rate disputes. Mr. Stannard is an active member of the WEF and AWWA. He served as chair of the WEF's task force charged with the development of a *Manual of Practice, Financing and Charges for Wastewater Systems*. Mr. Stannard also authored a chapter entitled, "Selecting the Optimal Capital Financing Plan and Pricing Structure," for the Fourth Edition of the industry guidebook, *Water and Wastewater Finance and Pricing: The Changing Landscape*. He is the Chair of AWWA's Management and Leadership Division, a Trustee of AWWA's Technical & Education Council, and a past-Chair of AWWA's Finance, Accounting and Management Controls Committee.

PROFESSIONAL HISTORY

- Raftelis: Chairman of the Board (2017-present); Chief Executive Officer (2012-2016); President (2008-2016); Vice President (2002-2008)
- Black & Veatch: Senior Vice President (1996-2002); Vice President (1992-1996); Project Manager (1984-1992); Assistant Project Manager (1980-1984); Staff Consultant (1975-1980)

EDUCATION

- Bachelor of Science in Business Administration - Kansas State University (1975)
- Bachelor of Science in Civil Engineering - Kansas State University (1975)

PROFESSIONAL MEMBERSHIPS

- American Society of Civil Engineers
- American Water Works Association: Past-Chair of the Management and Leadership Division, Former Trustee of the Technical and Education Council, Past- Chair and Current member of the Finance, Accounting and Management Controls Committee, current member of the Rates and Charges Committee
- Member of EPA Environmental Finance Advisory Board
- Water Environment Federation: Past-Chair of Task Force on Wastewater Charges
- Listed in Best Lawyers in America – Directory of Expert Witnesses
- Listed in Who's Who in Science and Engineering

PROFESSIONAL REGISTRATIONS

- Registered Professional Engineer: MI (6201028796); OH (PE 57725); MA (38847); KS - 1979 (8636)

CERTIFICATIONS

- Series 50 Municipal Advisor Representative

RELEVANT PROJECT EXPERIENCE

Little Rock Water Reclamation Authority (AR)

Mr. Stannard is Project Manager for a comprehensive wastewater financial planning, cost of service and rate study for Little Rock Water Reclamation Authority (LRWRA). In addition to the cost of service analysis, this project includes a feasibility study of alternative system growth charges and a system value determination. LRWRA is in the midst of a major capital improvement program to address wet weather flow management issues. The program includes construction of a new wastewater treatment plant and, as such, LRWRA is interested in assessing the feasibility of instituting a system development charge to be applied to new customers. The system valuation element of the project will be an integral step in LRWRA's ongoing asset management program development.

City of Suffolk (VA)

Mr. Stannard serves as Project Director for Raftelis' multi-year engagement with the City of Suffolk (City) to provide financial services to the City's Department of Public Utilities (DPU). The scope of services include an annual update of the ten-year comprehensive financial plan, determination of water and sewer costs of service, development of proposed water and sewer rates for the upcoming fiscal year, and an assessment of the City's water and sewer system availability fees. In addition, Raftelis also conducts an annual true-up analysis for wholesale water service to the Authority. The true-up analysis recalculates the water rates using actual cost and water usage data to determine the actual cost-of-service for the Authority during the prior year.

City of Portland (OR)

Mr. Stannard was Project Manager for an engagement for the City of Portland Water Bureau (Bureau) which provides retail water service to customers within the City and wholesale water service to 19 agencies under agreements that will expire within

the next couple of years. Raftelis' scope of work was separated into two parts: assistance in developing wholesale rates and development of a robust modeling tool for onging rate calculation and financial planning use by the Bureau.

City of Saginaw (MI)

Mr. Stannard served as the Project Manager for a water cost of service engagement for the City of Saginaw (City). The engagement included development of a comprehensive financial plan, cost of service analysis and design of water rates. In addition to its retail customers, the City also provides water service to 19 wholesale customers, which use approximately 60% of the water produced. A key element of the engagement involved meetings with each of the wholesale customers to explain in detail the cost of service allocation methodology and the effect on the customer's water rates.

City of Calgary Utilities and Environmental Protection Department (AB)

Mr. Stannard serves as a technical expert in association with Stack'd Consulting for a comprehensive water, wastewater and drainage cost of service and rate study. This project examined all aspects of the financial and rate elements of the City's water, wastewater and drainage services to its retail customers within the City as well as the surrounding communities receiving wholesale service. The cost of service portion of the study included a deep dive into the appropriate methodologies to ensure a fair and reasonable distribution of the City's utility costs to the various customer classes in support of the City's overarching financial and pricing objectives. The outcomes of the project included new schedules of rates as well as a computer-based model for use by the City in upcoming updates and assessments of the financial plan and necessary rates.

Mr. Stannard also served as Project Director on a previous project for the Calgary Utilities and Environmental Protection Department. This project encompasses a project titled Water, Wastewater, and Drainage Utilities Financial Review. This project has encompassed a detailed assessment of the various financial risks faced by the city in the services provided to the citizens of Calgary by each of these three utility operations. The facets of the project included planning, capital improvement project implantation and financing, revenue streams, responding to growth and development, and governable and organizational structure.

Strathcona County (AB)

Mr. Stannard served as Project Director for the County's Water and Wastewater Cost of Service and Rate Structure review projects. As Project Director, he supervised the project team in the conduct of the two studies, reviewed and assed the specific facets of each analysis and the presentation of Raftelis' findings and opinions set forth in the specific reports, and participated in presentations of the study results to the County Council. In addition to these two projects Mr. Stannard serves as Rate Consultant to the Regional Water Customer Group of the wholesale water customers of EPCOR. He has worked closely with County Staff in analyzing the new cost of service methodology proposed by EPCOR and participated in negotiations with EPCOR to reach agreement to the various areas of dispute.

Regional Water Customer Group, Edmonton (AB)

Mr. Stannard serves as the rate consultant to the Regional Water Customer Group (RWCG) which makes up the wholesale customers receiving water service from EPCOR's Edmonton Water Utility. Mr. Stannard played a significant role in the establishment of the cost of service methodology that was incorporated into a memorandum of understanding between EPCOR and the RWCG and filed with the Alberta Utilities Commission (AUC). This MOU ended many years of rate challenges before the AUC and has resulted in a significantly improved working relationship between EPCOR and the RWCG. Continued work includes review and evaluation of the annual true up cost of service analysis as well as review of EPCOR's proposed indicative rates.

Franklin Water Utility (WI)

Franklin Water Utility (FWU) purchases water supplies on a wholesale basis from the adjacent City of Oak Creek (Oak Creek). Mr. Stannard provided extensive testimony on behalf of the wholesale intervenors in the 2011 rate increase application of the Oak Creek Water and Sewer Utility (PSCW Docket No. 4310-WR-104). Mr. Stannard's testimony focused on three key areas. First, was a refutation of Oak Creek's proposed use of coincident customer class peaking factors in its base-extra capacity cost of service study (something not previously done by the PSCW). Second, Mr. Stannard proposed that Oak Creek conduct a detailed analysis of customer class demand characteristics in lieu of their proposed use of demand factors that severely disadvantaged wholesale customers. Finally, Mr. Stannard filed extensive testimony regarding the allocation of public fire projection costs to the City of Franklin under the methodology approved for use by Milwaukee Water Works in PSC Docket No. 372-WR-107. The PSC issued a ruling affirming Mr. Stannard's position on these issues in the Commission's delegated Final Decision on July 23, 2012 (PSC Ref#: 168775). This ruling was upheld in the Commission's preliminary determination to modify the Final Decision made on October 3, 2012 (PSC Ref#: 173880).

Northwest Water Commission (IL)

Mr. Stannard has served as principal-in-charge for several engagements for the Northwest Water Commission (Commission). These engagements have included review of water rates charged to the Commission proposed by the City of Evanston (City) and assistance with negotiation of the rates to be charged under the terms of the Commission's contract with the City, and a determination of the current value of the Commission's water system assets. Currently, Raftelis is developing proposed water rates for potential service to new contract customers.

City of Naperville (IL)

Mr. Stannard served as Project Director for a comprehensive water and wastewater rate study for the City of Naperville (City). The scope of work included development of financial plans for the water and wastewater utilities, cost of service analyses, and design

of proposed rates to fund the projected revenue requirements for the two utilities. The findings of the study were presented to the City Council which approved the proposed changes in rates including a purchased water component which will serve as a pass through to reflect the rates for water purchased from the Du Page County Water Commission.

Loudoun County Sanitation Authority (VA)

Mr. Stannard served as the Project Director on two engagements for Loudoun County Sanitation Authority (Authority), a cost of service rate study and a bond feasibility study. The Authority's goal for the rate study was to maintain the current rate structure and minimize rate increases while still preserving a sufficient fund balance to meet all internal coverage requirements. The follow-up bond feasibility study used the newly developed rate model to ensure the Authority's financial capability to issue new debt.

City of Kansas City (MO)

Mr. Stannard served as the Project Director for a wastewater financial planning and cost of service study for the City of Kansas City Water Services Department (Department). The project included development of a comprehensive financial plan, cost of service analysis and design of wastewater rates. In addition to its retail customers, the Department also provides wastewater service to more than 20 wholesale customers. A key element of the engagement involved a detailed analysis of the costs of the system components which serve the wholesale customers to serve as the basis for a move to cost of service based rates for the wholesale customers in place of the historic practice of tying the wholesale rates to the inside City retail rates.

City of Baltimore (MD)

Mr. Stannard serves as the Project Director on this multi-year engagement with the City of Baltimore's Bureau of Water and Wastewater (City). The engagement encompasses a variety of cost of service and rate studies for the City's water and wastewater systems. He is currently leading our Firm's wastewater cost of service analysis and development of high strength surcharge rates in accordance with EPA user charge regulations. Other components of our engagement with the City include review and evaluation of cost allocations to the City's wholesale water and wastewater customers in accordance with the water and sewer service agreements.

City of Detroit (MI)

Mr. Stannard served as Project Manager/Principal-in-Charge for various projects for the City of Detroit (City), including comprehensive water and wastewater revenue requirements, cost of service and rate design studies; consulting engineers/feasibility reports for over $2 billion of water and wastewater system revenue bonds; an automated capital improvement program management and tracking system; and an automated work order tracking system. The rate study engagements included development of user-friendly, Windows-based, rate models, initially using Lotus 123 and, subsequently, Microsoft Excel® for use by the City's rate and finance staff.

Northeast Ohio Regional Sewer District (OH)

Mr. Stannard served as Project Director in the development of a comprehensive financial plan for the five year period 2007-2011 and 2012-2016, as well as various other engagements for the District since 2004. The financial plan included projections of customers, water usage and revenues under the existing rates, projections of operating and maintenance expense, debt service on existing bonds and additional bonds necessary to fund the capital improvement program, and reserve fund deposits. In addition, Raftelis recommended a rate adjustment program over the five year study period to meet the projected revenue requirements and maintain the District's financial sustainability. A user-friendly computer model was also developed for use by District staff to analyze different planning scenarios.

City of Los Angeles (CA)

Mr. Stannard served as Principal-in-Charge for the best practices study for the Los Angeles Wastewater Program. This project built on the City's efforts conducted during the five years prior to the best practices study during which the City, working through its Labor Management Committee, had reduced the program's full-time employment by 28 percent. The best practices study covered every aspect of the organization including plants, collection system, engineering, finance, accounting, human resources, billing and collection, customer service, construction management, and many others. As a result, additional savings of nearly 20 percent were identified over the ensuing five-year period, utilizing normal attrition in lieu of layoffs. The projected savings incorporated business process changes that were identified and evaluated as part of the project with a significant portion of the savings to be achieved in the areas of support services and capital improvement programs.

City of San Diego (CA)

Mr. Stannard served as the Principal-in-Charge for a management review of the City's Water Department. This review was driven by City Council concerns about the overall management of the Department and several specific areas within the Department, as identified by the Council. The City Council directed a very tight time schedule for the project, which was completed within two months. In order to accomplish the goals of the project within this schedule, separate work teams were formed for each of the assigned areas. The systematic approach provided an efficient, thorough and comprehensive review of each functional area while allowing the project team to successfully conform to the tight schedule.

City of Cincinnati (OH)

Mr. Stannard served as the Partner-in-Charge for the project team engaged by Cincinnati Water Works (CWW) to work with CWW's Executive Management Team in development of their first Strategic Business Plan. The work on this project included a complete employee survey, outreach with key external stakeholders, multiple workshops with the Executive Team and staff representatives for development of CWW's vision and mission, as well as goals, objectives and strategies, and leading multi-disciplined CWW teams in development of specific action plans. The result of this engagement

was a comprehensive business plan which established a road map for the utility over the coming decades.

Metropolitan St. Louis Sewer District Rate Commission (MO)

Since 2012, Mr. Stannard has served as Project Director for Raftelis' multi-year Rate Consultant contracts with the Metropolitan St. Louis Sewer District. In this role, Raftelis has worked with MSD to develop new rate models for its wastewater and stormwater utilities, evaluate rate structures, assist in debt issuance, and provide other rate and financial consulting services as necessary over the course of the engagement. This latest cost of service study included a comprehensive analysis of the District's cost for collecting, treating, and disposing of wastewater and its associated pollutants as well as examining the levels of infiltration, inflow, and stormflow within the collection system both in terms of annual volumes and peak rates of flow. Raftelis continues to serve as the Rate Consultant for MSD.

Tarrant Regional Water District (TX)

Mr. Stannard served as Project Director on a project for the Tarrant Regional Water District (TRWD) to study the financial, economic, and policy impacts of a proposal that TRWD pay communities for wastewater effluent discharged into the Trinity River which would subsequently be used to augment TRWD's raw water supply.

City of Grosse Pointe (MI)

Mr. Stannard served as Project Manager to the City of Grosse Pointe, Michigan (City) performing a comprehensive water and wastewater cost of service study including benchmarking analysis allowing the City to compare their performance with respect to key performance criteria to the performance of other similar utilities. Mr. Stannard has also been responsible for the development of a ten-year financial plan for the City's Utilities Department, and creation of a financial planning and rate model for use by City staff in preparing annual updates to the water and wastewater rates.

City of Hobbs (NM)

Mr. Stannard has been the Project Manager on the City of Hobbs (City) water and wastewater rate study. The City was faced with significant capital expenditures to upgrade their wastewater treatment plant and wanted to ensure that the water and wastewater utilities were operating in a self-sufficient manner. Raftelis worked with City Staff as well as the City Council and Water Board to determine the City's rate setting goals. Raftelis then developed water and wastewater rate structures that addressed these goals, in particular, conservation, while providing for adequate capital financing.

City of Lee's Summit (MO)

As Project Manager, Mr. Stannard performed comprehensive water and wastewater cost of service studies for the City of Lee's Summit (City) as well as provided an update of the City's system development charges collected from new customers.

City of Olathe (KS)

Mr. Stannard has been the Project Manager on a series of engagements for the City of Olathe (City). Raftelis first performed an analysis of the City's existing System Development Fee methodology and provided guidance on how the fees could be updated and improved. Raftelis provided the subsequent revisions and updates and presented these findings to City Council. Raftelis has subsequently been engaged by the City to analyze proposed wastewater impact fees that would supplement system development charge revenue, to update the City's cost of service computer model, and to assist with the determination of wholesale wastewater rates.

City of Wichita (KS)

As Project Manager, Mr. Stannard assisted the City of Wichita (City) in performing an analysis of wholesale water rates by evaluating billing data for the past three years for all of the City's wholesale customers and provided recommendations to improve the recovery of revenue requirements from these customers. Raftelis has also performed a rate study to determine a raw water rate for a proposed new industrial customer seeking service from the City. Raftelis also analyzed the City's rate structure to determine its effectiveness for providing stable revenues during varying weather conditions.

City of Wyoming (MI)

Mr. Stannard was the Project Manager for Raftelis' engagement with the City of Wyoming (City) to perform a water cost of service study and to provide assistance in the negotiation of new wholesale contracts for water and wastewater service. The City engaged Raftelis to perform a water cost of service study to support the negotiation of new wholesale water contracts. Raftelis also provided expertise in areas including rate of return, cost of service allocations, industrial surcharges, and rate design.

City of Philadelphia (PA)

Mr. Stannard served as a water rate expert, assisting the City of Philadelphia in a water rate dispute with one of the City's major wholesale customers. Dispute resolution was accomplished through arbitration where Mr. Stannard provided expert testimony in support of the City's water cost of service analysis and rate design. He also assisted the City in developing the overall strategies for crafting the City's case.

City and County of San Francisco (CA)

Mr. Stannard served as Project Manager on an engagement with the San Francisco Public Utilities Commission (SFPUC) in the development of contract negotiation strategies regarding the renegotiation of SFPUC's wholesale water service agreements with it wholesale water customers. A major component of Mr. Stannard's work included the analysis of the impact of SFPUC's $4.5 billion capital improvement program on the overall financial plan and the allocation of costs to the wholesale customers under the utility basis of cost allocation as well as the cash basis to determine the short, mid, and long term impacts on retail rates and wholesale rates.

OTHER RELEVANT PROJECT EXPERIENCE

- Allegheny County Sanitary Authority (PA) – Rate Study, Industrial SC Review
- Arlington County (VA) – Alternative Rate Structure Analysis, Financial Planning, Availability Fee Development, and Public Involvement Program
- City of Cincinnati (OH) – Strategic Business Plan
- City of Columbus (OH) – Water and Wastewater Rate Study
- City of Henderson (NV) – Water and Wastewater Rate Study
- City of Lee's Summit (MO) – Water and Wastewater Cost of Service Study
- City of Lexington (KY) – Water System Valuation
- Loudoun County Sanitation District (VA) – Water and Sewer Rate Study and Bond Feasibility Study
- City of Loveland (OH) – Evaluation of Wastewater Service Alternatives
- City of Kalamazoo (MI) – Wastewater Rate Review
- City of Macomb (MI) – Wastewater Rate Litigation Assistance and Feasibility Analysis for Acquisition
- Northeast Ohio Regional Sewer District (OH) – Financial Planning, Rate Study and Rate Model
- Oakland County (MI) – Water and Wastewater Rate Review and Master Plan Financial Analysis
- City of Olathe (KS) – Water and Wastewater Availability Fees
- City of Portland (OR) – Wholesale Service Contract Review and Bond Feasibility Study
- City of Saginaw (MI) – Wholesale Water Contract Negotiations, Water Cost of Service Study and Water Rate Update
- San Antonio Water System (TX) – Water and Sewer Rate Study
- San Francisco Public Utilities Commission (CA) – Wholesale Contract Development, Reuse Water Pricing Review, Wheeling Rate Review
- City of Warren (MI) – Water Rate Litigation Support
- City of Wichita (KS) – Wholesale Water Rates Analysis
- United States Navy, Norfolk (VA) – Water Rate Review

OTHER EXPERIENCE

- Invited Instructor: University of Colorado School of Engineering – Graduate Course on Utility Management and Finance

LITIGATION SUPPORT EXPERIENCE

Alpena (MI)

Alpena County, Michigan Circuit Court

Mr. Stannard served as an expert witness on behalf of the City of Alpena in a water and wastewater rate dispute with its sole wholesale customer, Alpena Township. The principal issue raised by the Township challenged the reasonableness of the City's water and wastewater rates in accordance with the service contract and Michigan statutes and juris prudence. During the trial the parties began negotiation of a potential settlement during which Mr. Stannard served in a principal role in negotiating terms and conditions with the Township's expert. A settlement was reached and entered by the Court.

Bay City (MI)

Water Rate Arbitration between the City of Bay City and its wholesale customers Bay County and Hampton Township

Mr. Stannard served as an arbitrator representing Bay County and Hampton Township in a challenge of the City of Bay City's wholesale water rates. The challenges to the water rates focused on the determination of the City's revenue requirements to be recovered from the water rates and the application of the "utility basis" in the determination of the wholesale cost of service. The neutral arbitrator agreed with the arguments presented by Mr. Stannard and found in favor of Bay County and Hampton Township.

City of Detroit Water and Sewerage Board (MI)

United States District Court, Eastern District of Michigan

Mr. Stannard testified on behalf of the City of Detroit and its Water and Sewerage Department regarding its wastewater rates charged to its wholesale wastewater customers and its industrial retail customers on multiple occasions during the period 1977 through 1996. During this period, Mr. Stannard testified on twelve occasions in depositions and in hearings in Federal Court. In addition to his testimony Mr. Stannard was directly involved in the negotiation of four rate settlement agreements between the City of Detroit and the wholesale customers.

Oakland County Michigan Circuit Court

Mr. Stannard testified on behalf of the City of Detroit in support of the City's water rates charged to the City of Novi, Michigan. The Trial Court found in favor of the City of Detroit citing Mr. Stannard's testimony as a fundamental basis for the decision.

Kalamazoo (MI)

Kalamazoo County, Michigan Circuit Court

Mr. Stannard testified as an expert witness in support of the City in a wastewater rate dispute with its wholesale customers. Mr. Stannard's testimony was provided in deposition conducted by the plaintiff's attorney and helped facilitate a settlement agreement between the parties establishing a process and methodology for determination of future wastewater rates.

Holland (MI)

Arbitration between the City of Holland and the City of Zeeland

Mr. Stannard served as an expert witness on behalf of the City of Holland, Michigan in its arbitration on water rates with the City of Zeeland, Michigan. His testimony was provided in depositions and during the arbitration hearings. The findings of the arbitration panel were principally in support of the City of Holland's water rates.

Oakland County (MI)

United States Bankruptcy Court Eastern District of Michigan Southern Division

Mr. Stannard served as an expert witness on behalf of Oakland County which challenged the City of Detroit's proposed Plan of Adjustment (POA) related to the City's Chapter 9 Bankruptcy filing. Mr. Stannard's expert report presented his findings and opinions regarding the impact the POA would have on the City's ability to adequately fund its water and wastewater systems which provided essential service to approximately 2,000,000 people outside the city

limits of Detroit. After his deposition, the Governor of the State encouraged the City and the three counties representing the wholesale customers to reach a settlement regarding the Detroit Water and Sewerage System. The ultimate settlement resulted in the creation of the Great Lakes Water Authority (GLWA) and the dropping of the challenges regarding the POA. This settlement allowed the City to proceed with its Bankruptcy and the creation of an effective governance structure for GLWA.

Lawrence (MA)

Essex County Massachusetts District Court

Mr. Stannard served as an expert witness on behalf of the Merrimack Paper Company challenging the wastewater rates enacted by the City of Lawrence, Massachusetts. Mr. Stannard testified in deposition and in the hearing setting forth the results of his analyses and his opinions regarding the equity and fairness of the City's wastewater rates in relation to generally accepted wastewater rate making principles and industry standards. The District Court ruled in favor of the City which prompted Merrimack Paper to Appeal to the Commonwealth Supreme Court. Once the appeal was accepted for hearing by the Supreme Court the City agreed to enter into a settlement with Merrimack paper.

Newark (NJ)

Essex County New Jersey Circuit Court

Mr. Stannard served as an expert witness for the Seton Leather Company in a suit challenging the equity of the City of Newark's wastewater rates. Mr. Stannard testified in deposition and during the Trial Court hearing on this matter. At the conclusion of the trial the Judge found in favor of Seton leather recognizing the testimony of Mr. Stannard as a substantial basis for his decision. The City of Newark appealed the decision to the New Jersey Supreme Court who ruled in favor of the City due to the effect that implementing the Trial Court's decision would have on the residential customers of the City.

Billings (MT)

Water Rate Arbitration between the Billings Heights Water District and the City of Billings, Montana

This matter started as a suit filed by the Billings Heights Water District against the City of Billings challenging water rates that had been adopted by the City. Mr. Stannard was retained as an expert witness on behalf of the District and presented testimony in deposition. After the parties had deposed the experts, the Trial Judge worked with them to enter into a new contract that provided for arbitration to settle disputes. The City then revised its water rates incorporating many of the issues raised by Mr. Stannard but still left other items with which the District disagreed. The case then moved to arbitration which was conducted as "baseball" arbitration with a single arbitrator rather than three. Mr. Stannard testified in the arbitration hearing presenting his analyses and opinions regarding the rate issues. The Arbitrator concurred with many of Mr. Stannard's issues and opinions, but due to the nature of baseball arbitration the ultimate finding favored the City.

Columbia (SC)

Richland County, South Carolina Circuit Court of Common Pleas

Mr. Stannard served as an expert witness on behalf of the City of Columbia in a call action suit filed against the City challenging the funding of the City's water and wastewater systems. Mr. Stannard's expert report focused on the historical financial structure of the City's water and sewer systems and provide opinions regarding the City's compliance with the state user fee statute and the state revenue bond act. After his deposition, the parties reached a settlement which was entered by the Court and resulted in a positive outcome for the City.

PUBLIC SERVICE COMMISSION APPEARANCES

Indiana Utility Regulatory Commission

Bloomington. Mr. Stannard served as expert rate consultant on six separate water rate cases before the Commission. Three of the cases were across the board adjustments to the rate structure based on the overall revenue requirement for the water utility. The other three cases included detailed cost of service and rate design determinations.

Columbus. Mr. Stannard served as the expert rate consultant on two water rate cases before the Indiana Utility Regulatory Commission on behalf of the City of Columbus. The first case included a comprehensive cost of service study and rate design and the second case was based solely on development of proposed revenue requirements.

Evanston. Mr. Stannard served as the expert rate consultant on behalf of the City of Evanston on two water rate cases heard by the Indiana Utility Regulatory Commission. Both cases included development of test year revenue requirements, comprehensive cost of service analyses and rate design.

Kentucky Public Service Commission

Boone County Kentucky Water District. Mr. Stannard testified as an expert water rate consultant on behalf of Boone County before the Kentucky Public Service Commission in support of the Water District's proposed water impact fees. The Commission approved the District's application for implementation of these fees.

Missouri Public Service Commission

Liberty Utilities (Missouri Water), LLC. Mr. Stannard testified as an expert witness on behalf of Sliverleaf Reorts Inc. and Orange Lake Country Club, Inc. in opposition to certain aspects of Liberty Utilities proposed increase in its water and sewer rates in the systems providing service to Silverleaf Resorts and Orange Lake Country Club. The issues raised by Mr. Stannard included the proposed capital structure and return on equity, the proposed rate design and the appropriateness of a phase in of the significant increase requested. The Commission's ruling has not yet been filed.

Wisconsin Public Service Commission

Oak Creek Water and Sewer Utility. Mr. Stannard testified as an expert on behalf of the City of Franklin, WI, a wholesale water customer of the City of Oak Creek, in opposition to the City of Oak Creek's proposed increase in its water rates. The Commission found in favor of most of issues raised by Mr. Stannard which resulted in a lower rate increase for service to the City of Franklin.

Tom Beckley

Project Manager

Senior Manager

SPECIALTIES

- Utility cost of service and rate structure studies
- Conservation rate studies
- Bond forecasts and feasibility studies
- Economic feasibility studies
- Industrial waste charge studies
- Capital recovery fee studies

PROFESSIONAL HISTORY

- Raftelis: Senior Manager (2014-present); Manager (2000–2013)

EDUCATION

- Master of Public Administration - University of Kansas (2008)
- Master of Business Administration (Concentration in Finance) – A.B. Freeman School of Business, Tulane University (2000)
- Bachelor of Science, Naval Architecture and Marine Engineering - Webb Institute (1995)

PROFESSIONAL MEMBERSHIPS

- American Water Works Association
- International Water Association
- Water Environment Federation

CERTIFICATIONS

- Series 50 Municipal Advisor Representative

Mr. Beckley has 18 years of experience with Raftelis conducting finance and rate related projects. He has assisted a wide range of municipal water and wastewater utilities in conducting cost of service, financial feasibility, privatization, system development fees, and other finance-related studies. Mr. Beckley authored a chapter entitled, "Designing Water and Wastewater Rate Structures," for the Fourth Edition of the industry guidebook, *Water and Wastewater Finance and Pricing: The Changing Landscape*. He is also an active member of AWWA and WEF, as well as ICMA, and has presented papers at various national and state conferences.

RELEVANT PROJECT EXPERIENCE

Little Rock Water Reclamation Authority (AR)

Mr. Beckley has served as Project Manager on several engagements for Little Rock Water Reclamation Authority (LRWRA), including two cost of service analyses, asset management assessment, and debt issuance assistance. For one cost of service study Raftelis assisted the utility with the creation and use of a Rate Advisory Committee (Committee). This Committee consisted of stakeholders from the community including resident groups, business groups, large businesses, and environmental groups. The Committee participated in a series of meetings that educated them on the operations, capital needs, and rate structure of LRWRA. The Committee provided input throughout the cost of service study process and ultimately prepared a report supporting the proposed rate increases and changes to the rate structure, including the implantation of a system development fee.

City of Suffolk (VA)

Mr. Beckley serves as Project Manager for Raftelis' multi-year engagement with the City of Suffolk (City) to provide financial services to the City's Department of Public Utilities (DPU). The scope of services includes an annual update of the ten-year comprehensive financial plan, determination of water and sewer costs of service, development of proposed water and sewer rates for the upcoming fiscal year, and an assessment of the City's water and sewer system availability fees. In addition, Raftelis also conducts an annual true-up analysis for wholesale water service to the Authority. The true-up analysis recalculates the water rates using actual cost and water usage data to determine the actual cost of service to the Authority during the prior year.

City of Topeka (KS)

In 2013, Mr. Beckley served as Project Manager for a rate study for the City of Topeka (City). Mr. Beckley assisted in the development of water and wastewater demand forecasts, various alternative financial planning scenarios for the each of the City's utilities, cost of service analyses and rate design alternatives. The rate design services include the development of irrigation rates, readiness to serve charges, conservation rates, and system development charges.

City of Olathe (KS)

Mr. Beckley has been the Lead Consultant on a series of engagements for the City of Olathe (City). Raftelis first performed an analysis of the City's existing System Development Fee methodology and provided guidance on how the fees could be updated and improved. Raftelis provided the subsequent revisions and updates and presented these findings to City Council. Raftelis has subsequently been engaged by the City to analyze

proposed wastewater impact fees that would supplement system development charge revenue, to update the City's cost of service computer model, and to assist with the determination of wholesale wastewater rates.

Metropolitan St. Louis Sewer District (MO)

Since 2012, Mr. Beckley has served as Project Manager for Raftelis' engagement to serve as the Rate Consultant for the Metropolitan St. Louis Sewer District (District). In this role, Raftelis has worked with MSD to develop new rate models for its wastewater and stormwater utilities, evaluate rate structures, assist in debt issuance, and provide other rate and financial consulting services as necessary over the course of the engagement. This latest cost of service study included a comprehensive analysis of the District's cost for collecting, treating, and disposing of wastewater and its associated pollutants as well as examining the levels of infiltration, inflow, and stormflow within the collection system both in terms of annual volumes and peak rates of flow. The Rate Change Proposal was accepted by the Rate Commission with only minor changes and without having to extend the schedule of the Rate Commission proceedings as had been necessary in the previous Rate Commission process. Over the past five years Raftelis has provided feasibility reports for five bond issuances totaling $890,580,000.

City of Lee's Summit (MO)

As Lead Consultant, Mr. Beckley performed comprehensive water and wastewater cost of service studies for the City of Lee's Summit (City) as well as provided an update of the City's system development charges collected from new customers.

City of Wichita (KS)

Mr. Beckley served as Project Manager for two cost of service studies for the City of Wichita's (City) water and wastewater utility. Raftelis was engaged by the City to perform a comprehensive cost of service study to address revenue shortfalls caused by declining usage in the City and to fund a large water source of supply project. Raftelis worked with the City to allocate costs between the water and wastewater utilities and to functions in each utility to determine cost of service for each of the City's customer classes. Raftelis then worked with the City to determine appropriate rates that not only recovered the City's cost of service, but also addressed their concerns related to revenue stability. Raftelis is also working with the City to develop a proforma model that will be used by City staff on an ongoing basis as a management decision tool based on the City's actual experience during the course of each fiscal year.

In another engagement with the City, Mr. Beckley served as Lead Consultant and assisted the City in performing an analysis of wholesale water rates by evaluating billing data for the past three years for all of the City's wholesale customers and provided recommendations to improve the recovery of revenue requirements from these customers. Raftelis has also performed a rate study to determine a raw water rate for a proposed new industrial customer seeking service from the City. Raftelis also analyzed the City's rate structure to determine its effectiveness for providing stable revenues during varying weather conditions.

Kansas City Water Services Department (MO)

Mr. Beckley served as Lead Consultant for a wastewater cost of service and rate study for the Kansas City Water Services Department (Department). Raftelis prepared a financial plan for the wastewater utility, forecasted revenue requirements, and determined the City's cost of service to its various customer classes and wholesale customers. A cost of service analysis and review of the City's wholesale contracts provisions resulted in the development of wastewater rates which were approved by the City Council.

City of Saginaw (MI)

Mr. Beckley served as the Project Manager for several water costs of service engagements for the City of Saginaw (City). These engagements include development of a comprehensive financial plan, cost of service analysis and design of water rates. In addition to its retail customers, the City also provides water service to 19 wholesale customers, which use approximately 60% of the water produced. A key element of the engagement involved presentations to the wholesale customer group and meetings with individual wholesale customers to explain in detail the cost of service allocation methodology and the effect on the customer's water rates.

City of Wyoming (MI)

Mr. Beckley has served as Lead Consultant and Project Manager for several engagements with the City of Wyoming (City) over the past decade. Raftelis' largest engagement was to perform a water cost of service study and to provide assistance in the negotiation of new wholesale contracts for water and wastewater service. The City engaged Raftelis to perform a water cost of service study to support the negotiation of new wholesale water contracts. A key element of the water rate study was working with the City's wholesale customers to review the methodology and results in a collaborative manner to ensure they were comfortable with the rate and methodology. Raftelis has also provided expertise in areas including rate of return, cost of service allocations, industrial surcharges, and rate design across several engagements with the City.

City of Grosse Pointe (MI)

Mr. Beckley serves as Project Manager to the City of Grosse Pointe (City) performing a comprehensive water and wastewater cost of service study including benchmarking analysis allowing the City to compare their performance with respect to key performance criteria to the performance of other similar utilities. Mr. Beckley has also been responsible for the development of a ten year financial plan for the City's Utilities Department, and creation of a financial planning and rate model for use by City staff in preparing annual updates to the water and wastewater rates.

Fort Gratiot Township (MI)

Mr. Beckley served as the Lead Consultant on an engagement for Fort Gratiot Township (Township) to review proposed water rates from the City of Port Huron (City). The City provides wholesale water service to the Township and was concerned about the level of proposed rate increases they were facing, so they engaged Raftelis to review the proposed rates to ensure they were appropriate.

City of Stillwater (OK)
Mr. Beckley served as Project Manager for a cost of service study for the City of Stillwater's (City) water and wastewater utility. During the course of this study Raftelis worked with City Staff as well as the City Council and the community to develop alternative rate structures to meet the pricing objectives of the City. A key element of this was the engagement of the community through workshops, the City conducted three workshops throughout the process to solicit their input and feedback. Raftelis personnel lead these workshops, collecting information from the community participants, in particular through the use of a pricing objectives workshop, then presenting alternative rate structures that would address the key pricing objectives identified by them.

City of Naperville (IL)
Mr. Beckley is serving as Project Manager for Raftelis' engagement with the City of Naperville (City). The City has engaged Raftelis to provide a comprehensive cost of service study for their water and wastewater utility and propose updated rates to meet the City's pricing objectives. Raftelis worked with City staff to determine their pricing objectives in a workshop setting and then used the results of that exercise to propose cost of service-based rates that met those objectives. The City has also engaged Raftelis to provide assistance in updating their contract for wholesale wastewater service with the City of Warren. Raftelis is working with the City to ensure that the contract is recovering the appropriate costs related to their service to the City of Warren.

Northwest Water Commission (IL)
Mr. Beckley served as Project Manager for Raftelis' engagement with the Northwest Water Commission (Commission), a wholesale water provider located in the northwest Chicago suburbs. The Commission engaged Raftelis to review its assets and determine a valuation for use in potentially providing service to additional customers. Raftelis also assisted the Commission in analyzing potential methodologies for recovery of costs from potential customers, including potential rates.

Arlington County (VA)
Mr. Beckley has been the Lead Consultant on a series of engagements for Arlington County (County). Raftelis has conducted cost of service studies for the County for the past several years, updated the County's System Development Charge methodology, conducted pricing objective workshops with County staff as well as a citizen's advisory group that provided input into the rate setting objectives for the cost of service study. Raftelis has also assessed the equity of existing user rates and charges and evaluated the customer impacts associated with alternative rate structures. In addition, the County has also requested assistance in evaluating financing alternatives related to its capital improvement program, which may also include the utilization of the rate model to facilitate the preparation of a written feasibility report to be used by the County in obtaining a bond rating or credit enhancement for debt obligations. Raftelis is also developing new infrastructure availability fees for the County along with a model for use by County staff in the future.

City of Hobbs (NM)
Mr. Beckley served as the Lead Consultant on the City of Hobbs (City) water and wastewater rate study. The City was faced with significant capital expenditures to upgrade their wastewater treatment plant and wanted to ensure that the water and wastewater utilities were operating in a self-sufficient manner. Raftelis worked with City staff as well as the City Council and Water Board to determine the City's rate setting goals. Raftelis then developed water and wastewater rate structures that addressed these goals; in particular, conservation, while providing for adequate capital financing.

Town of Grand Lake (CO)
Mr. Beckley served as the Project Manager for a water rate study for the Town of Grand Lake (Town). The Town's water utility serves approximately 950 customers in and around the Town. Raftelis was engaged by the Town to determine revenue requirements for the utility, prepare a financial plan that provided for funding of the utility's operations and maintenance as well as capital requirements, and propose rates to recover the necessary revenues. Raftelis worked with Town staff to develop an appropriate financial plan and presented the results to the Town's Mayor and Board in a public meeting.

Loudoun County Sanitation Authority (VA)
Mr. Beckley served as the Lead Consultant on two engagements for Loudoun County Sanitation Authority (Authority), a cost of service rate study and a bond feasibility study. The Authority's goal for the rate study was to maintain the current rate structure and minimize rate increases while still preserving a sufficient fund balance to meet all internal coverage requirements. The follow-up bond feasibility study used the newly developed rate model to ensure the Authority's financial capability to issue new debt.

City of Peoria (AZ)
In February 1998, the City engaged Raftelis to conduct a comprehensive water and wastewater rate and financial planning study, which incorporated a water and wastewater utility rate study, an update of its water and wastewater development fees, the development of a water resource fee, and the development of an appropriate financial plan and bond feasibility forecast. Following these initial engagements, Raftelis has assisted the City in updating its water and wastewater rates, utility financial plan, and utility development fees on a biennial basis (2000, 2002, 2004 and 2006). As part of these updates, the City implemented a uniform service area approach to determining its development fees.

In 2003, Raftelis further assisted the City in determining utility development fees for a separate service area located west of the Aqua Fria River. Although the City assesses uniform water and wastewater development fees to customers in all other areas of its water and wastewater system, proposed development in this independent service area requires significant investment in capital improvements and certain portions of the required infrastructure will be financed through a Community Facilities District. Since these fees will be separate and unique from the fees assessed to other customers within the City's current service area, the City

requested that Raftelis calculate the fees based upon the specific costs for the infrastructure they are intended to recover.

City of Phoenix (AZ)

Mr. Beckley has assisted the City of Phoenix (City) by providing bond feasibility analyses and parity test certifications for over $1 billion in water and wastewater revenue bonds over the past 10 years, including a $600,000,000 in Junior Lien Water System Revenue Refunding Bonds issued in 2005. These engagements included reviews of the City's financial statements and other financial data to prepare the feasibility analyses and parity test certifications.

City of Fort Worth (TX)

Mr. Beckley served as Project Manager for a review of the cost of service and rates of the wholesale wastewater service for the Water Department for the City of Fort Worth (City). The City owns, manages and operates a water supply, treatment, transmission and distribution system, and a wastewater collection, treatment and disposal system serving residents and businesses within and outside the City. Service to areas outside the City is provided through 28 wholesale water agreements and 23 wholesale wastewater agreements. The Water Department uses four separate computer models to assist in the cost of service and rate setting process. Wholesale water and wastewater rates are determined in accordance with specific revenue requirements and cost allocation methodologies contained in the wholesale water and wastewater contracts.

The City's practice has been to retain the services of an expert financial and rate consultant to update the wholesale rates on a three-year cycle. Mr. Beckley is currently working with the City to review and evaluate the cost of service methodology, make recommendations on changes or improvements to the methodology, and determine and verify the resulting rates. He will also participate in several workshops presenting the methodology and results to a Wholesale Customers Advisory Committee (WCAC) and sub-committee, and the final results will be presented to the City Council for adoption for fiscal year 2014.

OTHER RELEVANT EXPERIENCE

- Allegheny County Sanitary Authority (PA) - Industrial Surcharge Review and Rate Study
- Birmingham Water Works Board (AL) - Bond Feasibility Study
- City of Baltimore (MD) - Cost Model, Wastewater Rate Study, and Water Rate Arbitration Assistance
- City of Gladstone (MO) - Wholesale Rate Review
- Harlingen Water Works System (TX) - Water and Wastewater Rate Study
- City of Macomb (MI) - Feasibility Analysis for Acquisition and Wastewater Rate Litigation Assistance
- Metropolitan Government of Nashville and Davidson County Water Services (TN) - Budget Review
- Oakland County (MI) - Water and Wastewater Master Plan Study
- Peace River Manasota Regional Water Authority (FL) - Feasibility Study
- City of Providence (RI) - Rate Filings (multiple)
- Saginaw-Midland Municipal Water Supply Corporation (MI) - Feasibility Study
- City of San Francisco (CA) - Wholesale Water Contract Negotiations
- United States Navy - Rate Review and Negotiations

SPECIALTIES
- Gas and Electric Utility Financial and Management Consulting

EDUCATION
- M. B. A., University of Missouri – Kansas City, 1985
- B. S., Civil Engineering, University of Missouri - Rolla (Missouri University of Science and Technology) –1980

PROFESSIONAL REGISTRATION
- P.E. Missouri

PROFESSIONAL ASSOCIATIONS
- American Public Gas Association
- American Society of Civil Engineers
- Tau Beta Pi
- Phi Kappa Phi
- Chi Epsilon
- Beta Gamma Sigma

Tom Sullivan Jr. PE

Electric Cost of Service & Rates Technical Advisor

President

Mr. Sullivan has worked on a broad range of projects involving gas and electric utilities. His engagements include numerous functionalized (unbundled) and class cost of service studies, accounting and management information systems, rate design, long-term electric and natural gas demand and energy forecasts, economic feasibility of utility acquisitions, valuation analyses, cost recovery mechanisms, and depreciation rate studies. Mr. Sullivan has prepared direct and rebuttal testimony and supporting exhibits on numerous occasions for expert witnesses. He has testified on revenue requirements, rate design, class cost of service, class peak day demand requirements, weather normalization, and depreciation rates. Following is a representative summary of some of his relevant project experience.

RELEVANT PROJECT EXPERIENCE

Department of Public Utilities, Orangeburg, South Carolina | Competition Services, Load Studies, Rate Design, Cost of Service Analysis

Mr. Sullivan has served as a project manager on numerous projects for the gas, electric, water, and wastewater divisions for the DPU. Mr. Sullivan recently provided assistance in connection with Carolina Gas Transmission's (CGT) (formerly South Carolina Pipeline Corporation (SCPC)) open access filing first before the South Carolina Public Service Commission and then before the Federal Energy Regulatory Commission (FERC) and the subsequent negotiation of the first firm transportation service contract for a distribution utility on CGT's system. Mr. Sullivan provided assistance to the DPU in negotiating lower power supply costs which led to the development of lower electric rates in anticipation of competition. Mr. Sullivan assisted the DPU in the implementation of accounting and management information GIS systems for all four divisions to better manage costs and price services in a competitive environment. Mr. Sullivan recently completed a compensation survey of comparable municipal utilities in the Southwest for the DPU. The gas related assistance has included gas supply and demand studies, development of purchased gas cost tracking models, feasibility studies, cost of service, rate design, and assistance with the DPU's intervention in South Carolina Pipeline rate filings. The electric related assistance has included electric supply and demand studies, assistance with power supply negotiations, purchased power cost analysis, cost of service and rate design, assistance in South Carolina Electric & Gas Co. rate filings, and assistance with regards to pole connection charges to Time-Warner. Water and wastewater assistance has included cost of service and rate design.

Black Hills (F/K/A Aquila, Inc., Utilicorp United and Peoples Natural Gas Company)| Cost of Service, Design and Weather Normalization Studies, Iowa, Kansas, Missouri, Minnesota, Michigan, Colorado, and Nebraska

Mr. Sullivan has developed and sponsored as an Expert Witness class cost of service, rate design and weather normalization analyses in connection with filings for gas rate increases before the Iowa Utilities Board, The Public Utilities Commission of the State of Colorado, the Kansas Corporation Commission, the Michigan Public Service Commission, the Missouri Public Service Commission, the Nebraska Public Service Commission, and the Minnesota Public Service Commission. Other responsibilities have included assistance with property valuation, feasibility studies, energy efficiency plan filings, and competition.

Sourcegas (F/K/A Kinder Morgan and K N Energy, Inc.) | Cost of Service, Rate Design, Weather Normalization, Depreciation, and Valuation, Colorado, Wyoming, Nebraska, Kansas, and Mexico

Mr. Sullivan has served as an Expert Witness for SourceGas in connection with rate pro-

ceedings before the Wyoming Public Service Commission., the Nebraska Public Service Commission, and the Colorado Public Utilities Commission. Mr. Sullivan has assisted SourceGas on several projects including a depreciation rate study for their retail gas distribution systems in Wyoming, Nebraska, and Colorado, weather normalization studies for Wyoming, Nebraska, and Colorado, and the development of decoupling riders in Nebraska and Wyoming. Mr. Sullivan developed numerous jurisdictional and class cost of service studies and rate design analyses in connection with filings before the Federal Energy Regulatory Commission, Kansas Corporation Commission, and municipalities in Nebraska. Mr. Sullivan developed the cost of service study and rate design for SourceGas's rate filing for its Colorado intrastate pipeline, Rocky Mountain Natural Gas Company. Other responsibilities have included development of depreciation rates for SourceGas's Mexico facilities, valuation of gas utility properties, determination of remaining life of assets, assessment of corporate overheads, development of computer models, and litigation assistance.

Bamberg Board of Public Works | Cost of Service and Rate Design, Bamberg, South Carolina

Mr. Sullivan performed the BPW's recent gas, electric, water, and wastewater cost of service and rate study. This study included the development of unbundled electric rates. Prior assistance has included the development of cost of gas models to track purchased gas costs and the development of unbundled gas rates to pass along monthly changes in purchased gas costs. Mr. Sullivan recently assisted the Bamberg Board of Public Works in negotiating a long-term power supply agreement with Santee Cooper. Mr. Sullivan has also assisted Bamberg Board of Public Works in natural gas pipeline matters before the South Carolina Public Service Commission and the FERC, and with power supply contract negotiations.

Clarksville Gas and Water | Natural Gas Cost of Service and Rate Study, Clarksville, Tennessee

Mr. Sullivan teamed with Raftalis Financial Consultants in performing a cost of service and rate study for the City of Clarksville, Tennessee's natural gas utility. The proposed rates were based on a five-year financial plan and included unbundling of the cost of gas, developing rates recognizing the fixed natural of local distribution utility costs, and considering competitive factors associated with natural gas service.

The Empire District Gas Company and Empire District Electric Company | Depreciation Rate Study, Joplin, Missouri

Mr. Sullivan served as Project Director in connection with the development of a depreciation rate studies for both the Empire Gas and Empire Electric systems for filing with the Missouri Public Service Commission. He has also filed expert witness testimony on behalf of Empire concerning depreciation expense rate issues before the Missouri Public Service Commission and the Oklahoma Commerce Commission.

Natural Gas Processing | Revenue Requirements, Cost of Service, Rate Design, and Weather Normalization, Wyoming and New Mexico

Mr. Sullivan has developed and sponsored as an Expert Witness revenue requirements, class cost of service, rate design, and weather normalization analyses in connection with a filing for gas rate increases on behalf of Natural Gas Processing's Zia Natural Gas Company before the New Mexico Public Regulation Commission. Mr. Sullivan has also developed and sponsored as an Expert Witness revenue requirements, class cost of service, rate design, and weather normalization analyses in connection with a filing for gas rate increases on behalf of Natural Gas Processing's Wyoming Gas Company before the Wyoming Public Service Commission.

Missouri Gas Energy (MGE) | Depreciation Rate Study, Kansas City, Missouri

Mr. Sullivan served as Project Director in connection with the development of depreciation rate studies for filing with the Missouri Public Service Commission. He has also filed expert witness testimony on behalf of MGE concerning depreciation expense rate issues before the Missouri Public Service Commission. Mr. Sullivan also developed depreciation rates for newly installed automated meter reading (AMR) facilities.

Greenville Utilities Commission | Gas Rate and Cost of Service Study, Greenville, North Carolina

Mr. Sullivan served as Project Director on the gas rate and cost of service study for the Gas Division of the Greenville Utilities Commission (GUC). In addition, Mr. Sullivan prepared an economic feasibility study of a proposed compressed natural gas (CNG) fueling station for GUC. The GUC was also one of the parties in North Carolina Natural Gas Corporation's retail rate filing before the North Carolina Utilities Commission in Docket No. G-21 Sub 442 for whom Mr. Sullivan provided testimony regarding cost of service.

Philadelphia Gas Works | Engineer's Report, Philadelphia, Pennsylvania

Mr. Sullivan served as Project Director on the engineer's reports developed for PGW's revenue bond issues totally approximately $3 billion. Proceeds from the bond issues funded needed capital improvements to PGW's distribution system and LNG facilities, and the refunding of bonds to reduce interest costs. The engineer's report summarized the findings of a study of PGW's facilities, management, operations, gas supply, rates and marketing, and customer service, and assessed the financial feasibility of the bond issue. Mr. Sullivan also served as an Expert Witness before the Pennsylvania Public Utility Commission on PGW's behalf, testifying on the appropriate level of PGW's revenue requirement for rate making purposes. Mr. Sullivan has also prepared a depreciation rate study for PGW.

Interstate Power and Light Company (IPL) | Cost of Service and Weather Normalization, Cedar Rapids, Iowa

Mr. Sullivan has served as an Expert Witness for IPL in connection

with a rate proceeding before the Iowa Utilities Board. Mr. Sullivan developed and sponsored IPL's weather normalization adjustment and class cost of service study. In addition, Mr. Sullivan provided analysis and input into IPL's proposed rate design.

Pensacola Energy | Rate Study and Annual Operations Report, Pensacola, Florida

Mr. Sullivan serves as Project Director on the annual report prepared for Pensacola's gas system. This annual report documents interviews, site visits, and review of records pertaining to the management and operation of Pensacola Energy to determine if the system is operated in a safe and reliable manner, is in compliance with State and Federal regulations, and is in compliance with the covenants sets forth in the City's bond resolutions. Mr. Sullivan performed Pensacola Energy's most recent gas rate study and presented the results of this study to the Pensacola City Council. This study recommended base rate increases and modifications to Pensacola Energy's cost of gas recovery model. In addition, Mr. Sullivan assisted Pensacola Energy in preparing its proposal to the Navy to purchase the gas distribution systems owned by the military and used to serve the three naval bases in the Pensacola area, and Mr. Sullivan has assisted Pensacola Energy in valuing pipeline assets it is and has acquired.

Clearwater Gas System | Rate Study, Clearwater, Florida

Mr. Sullivan has performed the last three natural gas rate studies for Clearwater Gas System ("CGS"). These studies recommended redesign of CGS's base rates to collect more fixed costs through customer charges, modifications to CGS's rider of collecting regulatory costs, and an expansion of their weather normalization adjustment to include conservation and inflation.

Pjm Interconnection, LLC | Analysis of Operating Cash Reserves, Pennsylvania

Mr. Sullivan served as an Expert Witness for PJM Interconnection, LLC in connection with their recent rate filing before the Federal Energy Regulatory Commission. Mr. Sullivan's testimony addressed the appropriate level of operating cash reserves needed by PJM in connection the fixed rate design that PJM proposed to replace a formula rate with monthly true-ups.

Texas Gas Service Company (F/K/A Southern Union Gas Company) | Depreciation Rate Study, Texas

Mr. Sullivan served as Project Manager in connection with the development of a depreciation rate study for Texas Gas' Texas facilities (formerly owned by Southern Union Gas Company). Mr. Sullivan also appeared as an Expert Witness on behalf of Southern Union in proceedings before the Railroad Commission of Texas and has filed testimony in connection with a rate proceeding before the City of El Paso, Texas.

York, Lancaster, and Chester County Natural Gas Authorities | Analysis of Cash Flow Requirements, South Carolina

For each Authority, Mr. Sullivan analyzed the historical and forecast cash flow requirements, recommended appropriate levels of debt financing and rate increases to meet future requirements, developed natural gas tariffs, and developed a cost of gas recovery mechanism which recovers all gas costs on an annual basis while simultaneously levelizing the unit cost recovery amount charged from month to month. Mr. Sullivan has also assisted the authorities in matters before the South Carolina Public Service Commission and the FERC.

North Carolina Municipal Cities, Customers of Piedmont Natural Gas Company | Cost of Service and Rates

Mr. Sullivan served as the Project Manager in connection with assisting the Cities of Greenville, Rocky Mount, Wilson, and Monroe in North Carolina Natural Gas Corporation's retail rate filing before the North Carolina Utilities Commission in Docket No. G-21 Sub 442. The cities are wholesale intrastate transmission customers of NCNG (now owned by Piedmont Natural Gas Company). Mr. Sullivan provided expert witness testimony with regards to cost of service, rate design, and the unbundling of intrastate transmission service. After the rate case was settled, Mr. Sullivan provided assistance to the Municipal Cities in their negotiations of an unbundled intrastate transmission service from Piedmont.

Piedmont Municipal Power Agency | Electric Load Forecast, Greer, South Carolina

Mr. Sullivan served as Project Manager on the demand and energy forecast prepared for PMPA for the 2003-2022 period. Separate forecasts were developed for each of PMPA's 10 member utilities and included monthly energy requirements, monthly system demand, the demand coincident with the PMPA system and the demand coincident with Duke Power Company. The forecasts relied on statistical analyses of population and growth trends, weather impacts on summer and winter load, as well as other drivers impacting the requirements of individual members.

York, Lancaster, and Chester County Natural Gas Authorities | Long-Range Gas Supply Study, South Carolina

For each Authority, Mr. Sullivan prepared studies which include (1) development of normal and design day temperature conditions for Winthrop College, South Carolina; (2) forecast growth in numbers of customers, sales, system annual requirements, and system peak day requirements based on historical weather data, historical gas sendout, sales, and number of gas customers; and (3) the determination of and recommendations regarding the most economical mix of supplies to meet peak day capacity requirements into the future. Mr. Sullivan has also provided consulting services to the three authorities in connection with gas supply and transportation issues as well as regulatory proceedings before the South Carolina Public Service Commission in connection with South Carolina Pipeline Corporation filings.

City of Geneva, Illinois | Long Range Electric Load and Rate Study

Mr. Sullivan has served as Project Manager on an electric load

and rate study for the City of Geneva, Illinois. The study included projections of cash requirements, electric demand and energy requirements, billing units, revenues, and rates for a 10 year period. Mr. Sullivan has also performed economic feasibility studies for new generation and transmission facilities, valuation studies, and other operations and management studies.

Las Cruces, New Mexico and Rio Grande Natural Gas Association | Cost of Service, Data Systems

Mr. Sullivan has served as Project Manager in connection with services to the gas utility of the City of Las Cruces, New Mexico and the Rio Grande Natural Gas Association. These services have included recommending accounting changes so that costs are tracked in a manner consistent with cost of service principles, performing load studies, reviewing class cost of service studies, assisting in the development of fixed asset accounting and work order systems, designing cost of gas recovery mechanisms, recommending initial depreciation accrual rates, and recommending an approach to determining the appropriate rate of return for "utility basis" cost of service studies.

Mid American Energy (F/K/A Midwest Power) | Cost of Service, Rate Design, and Weather Normalization Studies, Iowa, Nebraska, and South Dakota

Mr. Sullivan developed jurisdictional and class cost of service studies and designed rates in connection with filings for electric rate cases before the Iowa Utilities Board and the South Dakota Public Utilities Commission. He also directed the development of pro forma revenues and sales (kWh) adjustments to reflect normal weather conditions and the development of cost recovery factors associated with the utility's energy efficiency plan.

Mid American Energy (F/K/A Midwest Gas) | Cost of Service and Rate Design Studies, Iowa and Nebraska

Mr. Sullivan developed jurisdictional and class cost of service studies in connection with filings for gas rate increases before regulatory bodies and the states of Iowa, Minnesota, South Dakota, Illinois, and Nebraska. He has also developed avoided gas cost applicable to gas utility operations and estimated cost recovery factors associated with the utility's energy efficiency plan, and customer weighting factors used in connection with the gas cost of service studies.

Black Hills Power and Light Company | Sales, Energy, Peak, and Customer Forecasts, Cost of Service and Depreciation Rate Studies, Rapid City, South Dakota

Mr. Sullivan developed monthly class and jurisdictional sales and customer forecasts and monthly system energy and peak forecasts. Other responsi-bilities have included development of allocation bases for cost of service studies, development of depreciation accrual rates by FERC account, and the study of demand side management options.

Orange and Rockland Utilities | Long-Range Natural Gas Demand Study and Ferc Pipeline Assistance, New York

Mr. Sullivan completed a long range natural gas demand study which included the development of long-term customer and peak day demand forecasts for each customer class and of peak day sendout of Orange and Rockland's divisions. Mr. Sullivan also assisted in the preparation of testimony and exhibits for Orange & Rockland's intervention in Tennessee Gas Pipeline, Columbia Gas Transmission, and Algonquin Gas Transmission rate filings before the FERC. Other engagements for Orange and Rockland have included investigations of feasibility of additional pipeline interconnections, adequacy of the contracted level of underground gas storage, service, and weather data used in connection with gas utility operations.

Municipal Electric Authority of Georgia | Incremental Cost and Revenue Requirements Models, Atlanta, Georgia

Mr. Sullivan served as the lead Project Manager in connection with the development of two spreadsheet based computer models for MEAG. The Incremental Cost Model is designed to measure short run impacts on participants when load is added or lost. The Revenue Requirements Model is designed to project MEAG's revenue requirements for a 20 year period.

Terra Nitrogen, Lp | Class Cost of Service, Oklahoma City, Oklahoma

Mr. Sullivan served as Project Manager in connection with intervenor expert witness testimony and exhibits filed in Oklahoma Natural Gas' (ONEOK or ONG) recent rate case before the Oklahoma Public Service Commission. The issues addressed consisted primarily of the proper allocation of costs to the customer classed served by ONG.

Indianapolis Power and Light Company | Valuation of Electric Utility, Indiana

Mr. Sullivan served as Project Manager in connection with the determination of the fair value of IPL's electric utility properties. This determination of fair value was used in IPL's recent electric rate case for fair value rate base.

EXPERT WITNESS TESTIMONY

Peoples Natural Gas Company of South Carolina, South Carolina Public Service Commission Docket No. 88-52-G (1988)

Natural gas utility revenue requirements and rate design.

Peoples Natural Gas (Utilicorp United, Inc.), Iowa Utilities Board Docket No. RPU-92-6 (1992)

Natural gas utility class cost of service study and peak day demand requirements.

Peoples Natural Gas (Utilicorp United, Inc.), Kansas Corporation Commission Docket No. 193,787-U (1996)
Natural gas utility class cost of service study, rate design, and peak day demand requirements.

Southern Union Gas Company, Railroad Commission of Texas Gas Utilities Docket No. 8878 (1998)
Natural gas utility depreciation rates.

Southern Union Gas Company, City of El Paso (1999)
Natural gas utility depreciation rates.

Utilicorp United, Inc., Kansas Corporation Commission Docket No. 00-Utcg-336-Rts (1999)
Natural gas utility weather normalization, class cost of service, and rate design.

Philadelphia Gas Works, Pennsylvania Public Utility Commission Docket No. R-00006042 (2001)
Natural gas utility revenue requirements.

Missouri Gas Energy, Missouri Public Service Commission Docket No. Gr-2001-292 (2001) Natural Gas Utility Depreciation Rates. Aquila Networks, Iowa Utilities Board Docket No. RPU-02-5 (2002)
Natural gas utility class cost of service study, rate design, and weather normalization adjustment.

Aquila Networks (Michigan Gas Utilities), Michigan Public Service Commission Case No. U-13470 (2002)
Natural gas utility class cost of service study, rate design, and weather normalization adjustment.

Aquila Networks, Nebraska Public Service Commission Docket No. Ng-0001, Ng0002, Ng0003 (2003)
Natural gas utility weather normalization adjustment.

Aquila Networks, Missouri Public Service Commission Docket No. Gr-2003 (2003)
Natural gas utility class cost of service study, rate design, annualization adjustment, and weather normalization adjustment.

North Carolina Natural Gas, North Carolina Utilities Commission Docket No. G 21 Sub 442 (2003)
Filed intervenor testimony on behalf of the municipal customers regarding natural gas cost of service, and intrastate transmission service related cost of service.

Texas Gas Service Company, Division of Oneok, Railroad Commission of Texas Gas Utilities Docket No. 9465 (2004)
Natural gas utility depreciation rates.

Missouri Gas Energy, Missouri Public Service Commission Docket No. Gr-2004-0209 (2004)
Natural gas utility depreciation rates.

Aquila Networks, Kansas Corporation Commission Docket No. 05-Aqlg-367-Rts (2004)
Natural gas utility class cost of service study, rate design, and weather normalization adjustment.

Aquila Networks, Iowa Utilities Board Docket No. RPU-05-02 (2005)
Natural gas utility class cost of service study, rate design, grain drying adjustment and weather normalization adjustment.

Pjm Interconnection, LLC, Federal Energy Regulatory Commission Docket No. Er05-1181 (2005)
Operating cash reserve requirements.

Kinder Morgan, Inc., Wyoming Public Service Commission Docket No. 30022-Gr-6-73 (2006)
Weather normalization adjustment, pro forma billing determinants, revenues under existing rates and depreciation rates.

Missouri Gas Energy, Missouri Public Service Commission Docket No. Gr-2006-0422 (2006)
Natural gas utility depreciation rates.

Kinder Morgan, Inc., Nebraska Public Service Commission Docket NO. NG-0036 (2006)
Weather normalization adjustment, pro forma billing determinants, revenues under existing rates and competitive rates.

Aquila Networks, Kansas Corporation Commission Docket No. 07-Aqlg-431-Rts (2006)
Natural gas utility class cost of service study, rate design, irrigation adjustment, and weather normalization adjustment.

Aquila Networks, Nebraska Public Service Commission Docket No. Ng-0041 (2006)
Natural gas utility jurisdictional class cost of service study, rate design, and synchronization adjustment.

Zia Natural Gas Company, New Mexico Public Regulation Commission Case No. 08-00036-Ut (2008)
Natural gas utility billing determinants and revenues, weather normalization adjustment, customer growth adjustment, peak day analysis, revenue requirement, class cost of service study, and rate design.

Source Gas Distribution LLC, The Public Utilities Commission of The State of Colorado Docket No. 08S-108G (2008)
Natural gas utility weather normalization adjustment, irrigation adjustment, peak day analysis, test year billing determinants and revenues, and trends in customer usage.

Aquila Networks, Iowa Utilities Board Docket No. RPU-08-3 (2008)
Natural gas utility class cost of service study, rate design, grain drying adjustment and weather normalization adjustment.

Black Hills/Colorado Gas Utility Company, LLC (F.n.a. Aquila Networks), The Public Utilities Commission of The State of Colorado Docket No. 08S-290G (2008)
Natural gas utility class cost of service study, rate design, thermal billing, customer class redesign, and weather normalization adjustment.

Wyoming Gas Company., Wyoming Public Service Commission Docket NO. 30009-48-GR-08 (2008)
Revenue requirement, rate of return, weather normalization adjustment, pro forma billing determinants, revenues under existing rates and rate design.

Missouri Gas Energy., Missouri Public Service Commission Docket No. Gr-2009-0355 (2009)
Natural gas utility depreciation rates.

The Empire District Gas Company, Missouri Public Service Commission Docket No. Gr-2009-0434 (2009)
Natural gas utility depreciation rates.

Sourcegas Distribution, LLC, Public Service Commission of The State of Nebraska Docket No. Ng-60 (2009)
Natural gas utility weather normalization adjustment factor, customer adjustment factor, use per customer adjustment factor, inflation adjustment factor, pro forma customer adjustment, pro forma use per customer adjustment, and competitive issues.

Black Hills/Nebraska Gas Utility Company, LLC (F.n.a. Aquila Networks) Nebraska Public Service Commission Docket No. Ng-0061 (2009)
Natural gas utility jurisdictional class cost of service study, rate design, weather normalization adjustment, and synchronization adjustment.

Sourcegas Distribution, LLC, Wyoming Public Service Commission Docket No. 30022-148-Gr-10 (2010)
Natural gas utility use per customer adjustment factor, inflation adjustment factor, and uncollectible accounts factor and competitive issues.

Black Hills/Nebraska Gas Utility Company, LLC (F.n.a. Aquila Networks) Iowa Utilities Board Docket No. RPU-2010-0002 (2010)
Natural gas utility jurisdictional class cost of service study, rate design, weather normalization adjustment, grain dryer adjustment, annualization adjustment, ethanol plant adjustment, and synchronization adjustment.

The Empire District Electric Company, Missouri Public Service Commission Docket No. Er-2011-0004 (2010)
Electric utility depreciation rates.

The Empire District Electric Company, Oklahoma Commerce Commission Cause No. Pud 201100082 (2011)
Natural gas utility depreciation rates.

Sourcegas Distribution, LLC, Public Service Commission of The State of Nebraska Docket No. Ng-67 (2011)
Natural gas utility jurisdictional and class cost of service study, rate design, customer adjustment factor rider, use per customer adjustment factor rider, and competitive issues.

Interstate Power and Light Company, Iowa Utilities Board Docket No. RPU-2012-0002 (2012)
Natural gas utility weather normalization adjustment and class cost of service study.

The Empire District Electric Company, Missouri Public Service Commission Docket No. Er-2012-0345 (2012)
Electric utility depreciation rates.

Rocky Mountain Natural Gas Company LLC, Public Utilities Commission of The State of Colorado Docket No. 13Al-0067G (2013)
Intrastate natural gas pipeline cost of service study and rate design.

Rocky Mountain Natural Gas Company LLC, Public Utilities Commission of The State of Colorado Docket No. 13Al-067G (2013)
Safety and System Integrity Rider (SSIR).

Sourcegas Distribution LLC, Public Utilities Commission of The State of Colorado Docket No. 13Al-143G (2013)
Tariff provisions to incorporate Docket No. 13AL-0067G unbundling and tariff changes.

Black Hills/Kansas Gas Utility Company, LLC, Kansas Corporation Commission Docket No. 14-Bhcg-502-Rts (2014)
Natural gas utility class cost of service study, rate design, weather normalization adjustment, and bypass revenue rider.

Wyoming Gas Company., Wyoming Public Service Commission Docket No. 30009-57-Gi-14 (2015)
Testified at hearing to consider Wyoming Gas Company's motion for relief from filing a general rate case.

The Empire District Electric Company, Missouri Public Service Commission Docket No. Er-2016-0023 (2015)
Electric utility depreciation rates.

Wyoming Gas Company, Wyoming Public Service Commission Docket No. 30009-60-Gr-16 (2016)
Natural gas utility cost of capital, weather normalization adjustment, test year billing determinants and revenues, test year revenue requirement, class cost of service study and rate design.

The Empire District Electric Company, Corporation Commission of Oklahoma Cause No. Pud 201600468 (2016)
Electric utility depreciation rates.

ARTICLES AND PUBLICATIONS

- "Expanding Natural Gas Service Territory" Co-authored with Mr. David Durgin, Winter 2013 Issue of "THE SOURCE", official Publication of the American Public Gas Association

SPECIALTIES
- Utility strategic financial planning
- Cost of Service analysis
- Water, wastewater, and stormwater rate design
- Conservation rate design
- Statistical analysis

PROFESSIONAL HISTORY
- Raftelis: Manager (2019-Present); Senior Consultant (2016-2018); Consultant (2014-2015); Associate Consultant (2012-2013)

EDUCATION
- Master of Public Affairs (Public Finance) - Indiana University (2012)
- Bachelor of Arts in International Relations – Wheaton College (2010)

PROFESSIONAL MEMBERSHIPS
- American Water Works Association
- Water Environment Federation

Collin Drat

Lead Consultant

Manager

Mr. Drat has a background in public finance and statistical modeling. Since joining Raftelis, he has had the opportunity to participate in an array of utility financial and rate consulting engagements involving water and wastewater demand analysis, financial planning, cost of service analysis, cost of service review and rate design.

RELEVANT PROJECT EXPERIENCE

City of Suffolk (VA)
Mr. Drat currently serves as the Project Manager for Raftelis' multi-year engagement with the City of Suffolk (City) to provide financial services to the City's Department of Public Utilities (DPU). The scope of services includes an annual update of the ten-year comprehensive financial plan, determination of water and sewer costs of service, development of proposed water and sewer rates for the upcoming fiscal year, and an assessment of the City's water and sewer system availability fees. In addition, Mr. Drat collaborates with utility staff in the development of an annual comprehensive water and wastewater demand forecast, as part of the annual rate study engagement. Each year the performance of this forecast is evaluated on a monthly basis against the actual billing data received by the City and calibrated as necessary for the following year.

City of Lawrence (KS)
Mr. Drat served as the lead consultant for Raftelis' engagement with the City of Lawrence. Raftelis completed its initial rate study for the City in 2017. That engagement involved the development of a comprehensive 10-year financial plan, water and wastewater cost of service studies, conservation rate designs and system development charges. When Raftelis was retained to update the analysis for the 2019 budget, Mr. Drat worked directly with City staff to obtain the necessary data, present the results and help prepare to present the results before the City Commission.

City of Clarksville (TN)
Mr. Drat served as the lead consultant for Raftelis' engagement with the City of Clarksville. The engagement involved the development of a comprehensive financial plan, cost of service study and rate design for the City's natural gas utility. A key driver of the study was the anticipated construction of the Texas Gas Pipeline interconnect. Mr. Drat plan evaluated gas revenues at existing rates and determined the adjustments required to ensure the City would continue to meet its debt covenants following the issuance of the debt for the project. Another critical aspect of the project involved forecasting demand for the City's various customer classes. Mr. Drat evaluated recent years of historical natural gas demand as well as historical heating degree days to develop a normalized usage forecast to inform the financial plan and cost of service study.

City of Cookeville (TN)
Mr. Drat serves as the Lead Consultant for Raftelis' engagement with the City of Cookeville. This engagement involves the City's water, sewer, natural gas and electric utilities. Mr. Drat is updating the City's existing water and sewer financial plans, cost of service allocations and rate designs for a five-year forecast period. In addition, Mr. Drat is assisting in the development of rate structure alternative for the City's natural gas utility. This involves a normalized forecast of customer throughput, via the use of weather and customer data and statistical techniques. This normalized usage will inform the development of alternative structures which recover the appropriate level of margin (i.e. gas distribution costs, excluding cost of gas) from City customers.

City of Aztec (NM)
Mr. Drat served as the Lead Consultant for the Raftelis' engagement with the City of Aztec. The engagement involves the development of water, wastewater and electric utility financial plans, cost of service studies and rate designs. A key aspect of this engagement has involved the development of multiple financial planning scenarios to support the City capital improvement program. The program involves future expenditures which greatly exceed the amount the City has expended in the past. Evaluating the various financing options has assisted the City in prioritizing water, wastewater and electric capital improvement projects.

City of Saginaw (MI)
Mr. Drat currently serves as the Lead Consultant for Raftelis' engagement with the City of Saginaw (City). This engagement involves the update of the City's water rate model to establish updated water service rates. A key aspect of this engagement involves the development of water service rates for the City's 18 wholesale customers. This required the development of a five-year financial plan and an allocation of O&M, depreciation and return on rate base to each of the City's wholesale customers, based on that customers unique contribution to the City's operating and capital costs.

City of Round Rock (TX)
Mr. Drat serves as the Lead Consultant for Raftelis' engagement with the City of Round Rock (City). This engagement involves the development of water and wastewater financial planning, cost of service, rate design services. The project team began the engagement by assessing the rate model currently used by the City, and later produced an updated model to meet the City's needs. A key component of the financial planning process involved planning for the additional capital expenditures associated with new assets constructed by the Brushy Creek Utility Authority, in which the City is a participant. The engagement also involved the preparation of wholesale water and wastewater rates based on the utility basis cost allocation methodology.

Detroit Water and Sewerage Department (MI)
Mr. Drat serves as Lead Consultant for Raftelis' engagement with the Detroit Water and Sewerage Department (the Department). The engagement involves financial planning and rate design for the water and sewer utilities. Key aspects of this engagement involve analyzing and projecting costs from wholesale provider the Great Lakes Water Authority (GLWA), analyzing customer affordability and developing rates which mitigate the impact on lower income customers. Mr. Drat served as Lead Consultant for the development of the Department's private fire line charge study.

City of Marquette (MI)
Mr. Drat served as the Lead Consultant for Raftelis' engagement with the City of Marquette. This engagement involves the development of water, sewer and stormwater financial plans and rate designs. A key aspect of this engagement involved the evaluation and integration of the City's performance management contract with Johnson Controls, Inc into the financial plans. Mr. Drat also worked closely with the City's consulting engineer providing support and documentation of the financial elements of the City's Stormwater and Wastewater (SAW) asset management grant reporting requirements.

Waukesha Water Utility (WI)
Mr. Drat served as the Lead Consultant on Raftelis' engagement with the Waukesha Water Utility (WWU). WWU has faced challenges with radium in their current groundwater supply requiring them to construct the facilities necessary to attain water from Lake Michigan. The program is anticipated to cost in excess of $280M and will have a large impact on the customers of WWU. Mr. Drat has performed a wide variety of analyses for WWU including a risk focused comparison of two potential water suppliers, support in the development of WWU's wholesale service agreements, and assistance developing potential rates to recover the costs of new program. The most critical aspect of this engagement has been a detailed review and critique of the cost of service models of potential wholesale water suppliers the City of Oak Creek and Milwaukee Water Works.

Regional Water Customers Group (AB)
Mr. Drat has served as Lead Consultant for Raftelis' ongoing engagement with the Regional Water Customer Group (RWCG) since 2013. The Regional Water Customer Group (RWCG) is a consortium of nine water service providers located in suburban Edmonton who purchase treated water supplies from EPCOR Water Services Group, Inc. (EPCOR). Mr. Drat provided staff consulting support during the RWCG's negotiations with wholesale provider EPCOR following litigation at the Alberta Utilities Commission. Mr. Drat reviews EPCOR's prospective and actual cost of service models annually to ensure they comply with the agreed to methodology. Mr. Drat has also performed sensitivity analyses around RWCG's peak usage, which heavily influences its allocated cost of service form EPCOR. This analysis aided the RWCG in weighing the cost of reducing peak usage (asking customers to conserve on peak days) with the potential financial benefit.

Strathcona County Utilities (AB)
Mr. Drat served as the Lead Consultant for Raftelis' engagement with Strathcona County Utilities (SCU). This engagement involved the development of a comprehensive wastewater financial planning model, cost of service analysis and rate design services. This engagement involved a thorough review of the SCU's existing rate modeling practices, the development of an updated rate model and the development of several wastewater rate alternatives to meet the County's objectives. Particular issues addressed by the study were a review of the County's charges for third party wastewater treatment, an examination of fixed cost recovery, rate consolidation customers with similar service levels and pricing policy recommendations regarding customers with non-continuous wastewater usage (i.e. snowbirds).

Providence Water Supply Board (RI)
Mr. Drat has served as the Lead Consultant for the Providence Water Supply Board (PWSB), preparing schedules for the Board's

four most recent rate filings (Dk. 4571, Dk. 4406, Dk. 4571 and Dk. 4618) with the Rhode Island Public Utilities Commission (RIPUC). These filings involve the development of detailed rate year revenue requirements, retail and wholesale cost of service allocations and rate design. Mr. Drat prepared calculated rates in accordance with PWSB's existing rate structure as well as alternative rates designed to promote water conservation. In addition, Mr. Drat assisted in authoring expert testimony to the RIPUC, prepared responses to data requests and adjusted rate schedules as necessary.

City of Topeka (KS)

Mr. Drat served as the Staff Consultant for the City of Topeka's Office of Utilities and Transportation (City). Mr. Drat has assisted in the development of water and wastewater demand forecasts, various alternative financial planning scenarios for the each of the City's utilities, cost of service analyses and rate design alternatives. The rate design services include the development of irrigation rates, readiness to serve charges, conservation rates, and system development charges.

City of Junction City (KS)

Mr. Drat served as the Lead Consultant for Raftelis' engagement with the City of Junction City (City). The scope of work for this engagement involved the development of water and wastewater demand forecasts, comprehensive financial plans and rate design. A key aspect of this engagement involved financial planning and rate design which minimizes the financial impact of the City's relatively large planned capital improvements, while encouraging conservation among the City's customers. Mr. Drat and the project team worked collaboratively with the City's engineering consultant to develop three alternative financial planning scenarios based on various levels of capital expenditures. The recommended financial planning scenario and associated rates were presented before and accepted by the City Commission.

Marana Water (AZ)

Mr. Drat serves as the Lead Consultant for Raftelis' engagement with Marana Water, the utility providing water and wastewater service to the Town of Marana. This engagement has involved the development of water and wastewater financial plans, cost of service analyses and alternative rate designs. A unique aspect of this engagement has involved the development of multiple financial planning scenarios in order to aid Town staff in developing a plan which would balance the need for capital reinvestment against the impact to Marana Water customers.

OTHER RELEVANT EXPERIENCE

- City of Alexandria (VA) - Water Rate Litigation Support
- City of Alpena (MI) - Wholesale Water and Sewer Rate Litigation Support
- City of Atchison (KS) - Wholesale and Retail Water and Sewer Rate Study
- City of Baltimore (MD) - Stormwater Utility Implementation
- City of Bloomington (IL) - Sewer and Stormwater Financial Planning
- City of Flint (MI) - Water and Wastewater Financial Planning and Cost of Service Studies
- City of Marquette (MI) - Water, Sewer and Stormwater Financial Plan and Rate Design
- City of Marquette and Marquette Township (MI) - Joint Water Rate Study
- Gran Melia (PR) - Water Rate Litigation Support
- Masonic Villages at Sewickley (PA) - Sewer Rate Litigation Support
- Northwest Water Commission (IL) - Utility System Valuation, Wholesale Rate Methodology, Misc. Financial Analyses
- Orangeburg Department of Public Utilities (SC) - Water, Wastewater, Nat. Gas, Electric Rate Study
- Pennichuck East Utility - Water Cost of Service Study
- Port Huron Township (MI) - Wheeling Rate Analysis
- Silverleaf Resorts, Inc (MO, IL, TX) - Water and Sewer Rate Litigation Support
- St. Louis Metropolitan Sewer District (MO) - Rate Analysis Support
- State of Michigan Department of Treasury (MI) - Various Financial Analysis for City of Flint Utilities
- Tacoma Public Utilities (WA) - Econometric Water Demand Modeling

CONFERENCE PRESENTATIONS

- -"Which Came First? An Integrative and Iterative Approach to Funding Infrastructure in Junction City" (KWEA & KSAWWA Joint Annual Conference)
- -"Ratemaking 101: Best Practices for the Financially Sustainable Utility" (KWEA & KSAWWA Joint Annual Conference)
- -"Principals of Water, Wastewater and Stormwater Rate Setting" (NYAWWA Edwin C. Tifft Jr. Water Supply Symposium)
- -"Financial Breakdown in the Vehicle City: Finding a Way Forward for Flint Finances in the Wake of the Water Crisis" (AWWA/WEF Utility Management Conference)

SPECIALTIES
- Financial modeling
- Utility rate studies
- Bond feasibility reports
- Statistical analysis

PROFESSIONAL HISTORY
- Raftelis: Consultant (2019-present) Associate Consultant (2016-2018)

EDUCATION
- Master of Public Administration – Indiana University (2016)
- Bachelor of Science in Economics – Truman State University (2014)

PROFESSIONAL MEMBERSHIPS
- American Water Works Association
- Water Environment Federation

Joe Collins

Staff Consultant

Consultant

Mr. Collins has a background in economics, public policy analysis, and municipal finance as well as utility energy management and has assisted utilities on a variety of financial and rate consulting engagements involving water and wastewater demand analysis, financial planning, cost of service analysis, and rate design since joining Raftelis.

RELEVANT PROJECT EXPERIENCE

City of Suffolk (VA)
Mr. Collins currently serves as a staff consultant for Raftelis' multi-year engagement with the City of Suffolk (City) to provide financial services to the City's Department of Public Utilities (DPU). The scope of services includes an annual update of the ten-year comprehensive financial plan, determination of water and sewer costs of service, development of proposed water and sewer rates for the upcoming fiscal year, and an assessment of the City's water and sewer system availability fees. In addition, Mr. Collins maintains monthly records of actual billing data, which is evaluated against prior demand forecasts and used to adjust forecasts for future years.

City of Edgerton (KS)
Raftelis has assisted the City with various studies. Mr. Collins played a key role in the 2017 update of the water and sewer financial planning model Raftelis had previously developed for the city. The process included analysis of the City's customer demand, operating expenses, and future needs for expansion. He also assisted with an analysis of customer growth and wholesale sewer rates to evaluate the impacts of new development.

City of Perryville (MO)
Mr. Collins served as the staff consultant for Raftelis' engagement with the City of Perryville. The City sought to calculate rates sufficient to finance the construction of major wastewater treatment facility renovations and increased system maintenance costs. Mr. Collins assisted in developing a rate and financial planning model to provide a forecast of rates, revenues, expenses, debt service coverage, and reserves over a 10-year forecast period.

Metropolitan St. Louis Sewer District (MO)
Metropolitan St. Louis Sewer District (MSD) provides retail wastewater and stormwater services to the City and County of St. Louis, serving a population of approximately 1.3 million. MSD is interested in funding its stormwater management program through impervious area fees and, building on its longstanding relationship with Raftelis, has engaged the firm to provide stormwater funding and rate policy services. Mr. Collins aided in the development of the stormwater funding model and rate proposal and has begun work on the District's forthcoming sewer rate proposal.

City of North Kansas City (MO)
Mr. Collins served as the staff consultant for Raftelis' engagement with the City of North Kansas City. Mr. Collins developed a utility rate and financial planning model, which would allow the City to evaluate the financial impacts of potential choices concerning future water supply, major water treatment facility renovations, and increased system maintenance costs.

Little Blue Valley Sewer District (MO)
In July 2016, Raftelis was engaged by the Little Blue Valley Sewer District to complete a financial feasibility evaluation of proposed revenue bonds. Mr. Collins evaluated historic and projected revenues, expenses, and debt service for the District and the sewer subdistrict it governs.

City of Columbia (MO)

Mr. Collins serves as the staff consultant for Raftelis' engagement with the City of Columbia Department of Water and Light (CWL). Mr. Collins developed a water rate and cost of service study for the Columbia Department of Water and Light (CWL). CWL is seeking a comprehensive analysis of the existing and projected cost basis of utility operations and an evaluation of the appropriateness of its existing rate structure for providing water services. Mr. Collins has assisted in developing a rate and financial planning model to provide a forecast of rates, revenues, expenses, debt service, debt service coverage, and reserves over a 15-year forecast period. Mr. Collins has also developed cost-justified connection fees.

Des Moines Water Works (IA)

Mr. Collins currently serves as a staff consultant for Raftelis' engagement with Des Moines Water Works (DMWW). This engagement involves a review of DMWW's existing cost of service and financial planning methodology and the development of an updated financial planning tool for the City to use going forward.

Detroit Water and Sewerage Department (MI)

Mr. Collins serves as a staff consultant for Raftelis' engagement with the Detroit Water and Sewerage Department. The engagement involves financial planning and rate design for the water and sewer utilities. Key aspects of this engagement involve analyzing and projecting costs from wholesale provider the Great Lakes Water Authority (GLWA), analyzing customer affordability and developing rates which mitigate the impact on lower income customers. Mr. Collins also served as a staff consultant for the development of the Department's private fire line charge.

Allendale Township (MI)

Mr. Collins served as the staff consultant for Raftelis' engagement with Allendale Township. The engagement involved the development of utility rate and water and sewer financial planning models for Allendale Township. The financial plans involve a forecast of water and stormwater revenue, the development of a capital financing plan to fund improvements to the wastewater and stormwater systems and a detailed cash flow analysis for each utility indicating the rate adjustments necessary to ensure operational sustainability. Additionally, a key component of this engagement involved developing new system development charges for new connections to the water and sewer systems.

City of Saginaw (MI)

Mr. Collins currently serves as the staff consultant for Raftelis' engagement with the City of Saginaw (City). This engagement involves the update of the City's water rate model to establish updated water service rates. A key aspect of this engagement involves the development of water service rates for the City's 20 wholesale customers. This required the development of a five-year financial plan and an allocation of O&M, depreciation and return on rate base to each of the City's wholesale customers, based on that customers unique contribution to the City's operating and capital costs.

SPECIALTIES
- Data collection and analysis
- Financial modeling and forecasting
- Statistical analysis

PROFESSIONAL HISTORY
- Raftelis: Associate Consultant (2018-present)
- Norfolk Southern Corporation: Intermodal and Automotive Financial Analyst Co-op(2017)
- St. John Cobb, Inc: Financial Analyst Intern (2016)

EDUCATION
- Bachelor of Science in Quantitative Economics – Tulane University (2018)

PROFESSIONAL MEMBERSHIPS
- American Water Works Association
- Water Environment Federation

Jeremy Hall

Staff Consultant

Associate Consultant

Mr. Hall has a background in financial modeling, market research, forecasting and analysis. His expertise lies in financial modeling and analysis.

RELEVANT PROJECT EXPERIENCE

City of Suffolk (VA)
Mr. Hall currently assists on Raftelis' multi-year engagement with the City of Suffolk (City) to provide financial services to the City's Department of Public Utilities (DPU). The scope of services includes an annual update of the ten-year comprehensive financial plan, determination of water and sewer costs of service, development of proposed water and sewer rates for the upcoming fiscal year, and an assessment of the City's water and sewer system availability fees.

Providence Water Supply Board (RI)
Mr. Hall currently serves as the Staff Consultant for the Providence Water Supply Board (PWSB). Mr. Hall has been engaged in developing an updated the cost of service and rate model for PWSB, which will allocate the cost of water service between PWSB's retail customers and the 8 wholesale customers it serves using the base-extra capacity method.

City of Alexandria (VA)
Mr. Hall currently serves as the Staff Consultant for Raftelis engagement with the City of Alexandria (City). The City has intervened in the Virginia American's most recent filing (PUR-2018-00175) on behalf of the citizens of Alexandria. Mr. Hall is providing critical analytical support for the issues being raised by the City including: cost of capital, consolidation, cost of service and the water infrastructure service charge. In addition, Mr. Hall is authoring drafts of expert testimony to be used by Raftelis' testifying experts in this case.

Regional Water Customers Group (AB)
Mr. Hall serves as the Staff Consultant for Raftelis' current engagement with the Regional Water Customer Group (RWCG). RWCG is a consortium of nine water service providers located in suburban Edmonton who purchase treated water supplies from EPCOR Water Services Group, Inc. (EPCOR). Mr. Hall is currently engaged in reviewing EPCOR's prospective and actual cost of service models to ensure they comply with the agreed to methodology.

City of Smithville (MO)
Mr. Hall served the Staff Consultant for Raftelis' engagement with the City of Smithville, MO (City). The focus of this engagement was the development of a comprehensive water and wastewater financial plan. The plan involved comparing the City's forecasted revenues under existing rates to the projected operating and capital expenditures and identifying the rate adjustments necessary to close any gaps between the two. Mr. Hall also developed alternative rate structures to meet the City's pricing objectives for water and wastewater.

City of El Dorado (AR)
Mr. Hall serves the Staff Consultant for Raftelis' engagement with the El Dorado Water. Mr. Hall is developing a comprehensive water and wastewater financial plan which will identify any gaps between projected revenues and expenditures, making recommendations to ensure financial sustainability over time. This plan will be the basis for a cost of service analysis which assigns cost responsibility to El Dorado Water's various customer classes in proportion to their use of the water system.

City of Boulder City
Request for Proposal ("RFP")
RFP 2019-07 Utilities Rate Study

EXHIBIT "A"
PROPOSAL SUBMITTAL PAGE

This Proposal is submitted in response to **RFP 2019-07 Utilities Rate Study** and constitutes an offer by this company to enter into a contract as described herein.

William Stannard, PE — AUTHORIZED SIGNATURE NAME (TYPE OR PRINT)

Raftelis Financial Consultants, Inc. — LEGAL NAME OF FIRM

AUTHORIZED SIGNATURE

July 19, 2019 — DATE

Chairman of the Board — TITLE

816-285-9022 — TELEPHONE NUMBER

816-285-9021 — FAX NUMBER

3013 Main St. — ADDRESS OF FIRM

Kansas City — CITY

MO — STATE

64108 — ZIP CODE

E-MAIL ADDRESS: wstannard@raftelis.com

BCNV-BUSINESS LICENSE NO: Raftelis will apply for the business license if awarded

____ A COPY OF MY BCNV BUSINESS LICENSE IS ATTACHED

ADDENDA ACKNOWLEDGED

Addendum No.	1	Initial	WS	Addendum No.	____	Initial	____
Addendum No.	____	Initial	____	Addendum No.	____	Initial	____

FOR INFORMATIONAL PURPOSES ONLY

Is this firm a ESB, Minority, Women or Disabled Veteran Business Enterprise?

__x__ No ___ Yes If YES specify ___MBE ___WBE ___DVBE ____ESB

Has this firm been certified as a ESB, Minority, Women or Disabled Veteran Business Enterprise?

__x__ No ___ Yes If YES specify Certifying Agency

_____

Please attach a copy of your certification.

EXHIBIT "B"
CERTIFICATE – DISCLOSURE OR OWNERSHIP/PRINCIPALS

1. DEFINITIONS

"City" means the City of Boulder City.

"City Council" means the governing body of the City of Boulder City.

"Contracting Entity" means the individual, partnership, or corporation seeking to enter into a contract or agreement with the City of Boulder City.

"Principal" means, for each type of business organization the following: (a) sole proprietorship – the City of the business; (b) corporation – the directors and officers of the corporation; but not any branch managers of offices which are a part of the corporation; (c) partnership – the general partner and limited partners; (d) limited liability company – the managing member as well as all the other members; (e) trust – the trustee and beneficiaries.

2. INSTRUCTIONS

The Contracting Entity shall complete Block 1, Block 2, and Block 3. The Contracting entity shall complete either Block 4 or its alternate in Block 5. Specific information, which must be provided, is highlighted. An Officer or other official authorized to contractually bind the Contracting Entity shall sign and date the Certificate, and such signing shall be notarized.

3. INCORPORATION

This Certificate shall be incorporated into the resulting Contract or agreement, if any, between the City and the Contracting entity. Upon execution of such Contract or agreement, the Contracting Entity is under a continuing obligation to notify the City in writing of any material changes to the information in this Certificate. This notification shall be made within fifteen (15) days of the change. Failure to notify the City of any material change may result, at the option of the City, in a default termination (in whole or in part) of the Contract or agreement, and/or a withholding of payments due the Contracting Entity.

Block 1 Contracting Entity		**Block 2 Description**
Name Raftelis Financial Consultants, Inc.		**RFP 2019-07 Utilities Rate Study**
Address 3013 Main St., Kansas City, MO 64108		
Telephone 816-285-9022		
EIN or DUNS 20-1054069		

BLOCK 3	TYPE OF BUSINESS
___ Individual ___ Partnership ___ Limited Liability Company X Corporation ___ Trust ___ Other:	

EXHIBIT "B"
(CONTINUED)
FORM B
CERTIFICATE-DISCLOSURE OR OWNERSHIP/PRINCIPALS (Continued)

BLOCK 4 DISCLOSURE OF OWNERSHIP AND PRINCIPALS
In the space below, the Contracting Entity must disclose all principals (including partners) of the Contracting Entity, as well as persons or entities holding more than one-percent (1%) ownership interest in the Contracting Entity.

	FULL NAME/TITLE	BUSINESS ADDRESS	BUSINESS PHONE
1.	Peiffer Brandt, President & CEO	227 W. Trade St., Suite 1400, Charlotte, NC 28202	704-936-4433
2.	Elaine Conti, Vice President	227 W. Trade St., Suite 1400, Charlotte, NC 28202	704-936-4436
3.	Jon Davis, Vice President	227 W. Trade St., Suite 1400, Charlotte, NC 28202	704-936-4434
4.	Sanjay Gaur, Vice President	445 S. Figueroa St., Suite 2270, Los Angeles, CA 90071	213-262-9304
5.	Rick Giardina, Exec. Vice President	5619 DTC Pkwy, Suite 850, Greenwood Village, CO 80111	303-305-1136
6.	Anthony Hairston, Vice President	341 N. Maitland Ave., Suite 300, Maitland, FL 32751	407-960-1811
7.	J. Bart Kreps, Vice President	227 W. Trade St., Suite 1400, Charlotte, NC 28202	704-936-4438
8.	Henrietta Locklear, Vice President	1331 Union Ave., Suite 1150, Memphis, TN 38104	901-410-3300
9.	John Mastracchio, Vice President	4 British American Blvd. (2nd Floor), Latham, NY 12110	518-310-6330
10.	Sudhir Pardiwala, Exec. Vice President	445 S. Figueroa St., Suite 2270, Los Angeles, CA 90071	626-583-1894
11.	R. Keith Readling, Exec. Vice President	1001 Winstead Dr., Suite 355, Cary, NC 27513	984-201-6240
12.	Harold Smith, Vice President	227 W. Trade St., Suite 1400, Charlotte, NC 28202	704-936-4440
13.	William Stannard, Board Chairman	3013 Main St., Kansas City, MO 64108	816-285-9022
14.	Darin Thomas	822 N. Elm St., Suite 104, Greensboro, NC 27401	336-209-1347

The Contracting Entity, or its principals or partners, are required to provide disclosure (of persons or entities holding an ownership interest) under federal law (such as disclosure required by the Securities and Exchange Commission or the Employee Retirement Income Act), a copy of such disclosure may be attached to this Certificate in lieu of providing the information set forth in Block 5 above. A description of such disclosure documents must be included below.

I certify under penalty of perjury, that all the information provided in this Certificate is current, complete and accurate. further certify that I am an individual authorized to contractually bind the above named Contracting Entity.

BLOCK 5 DISCLOSURE OF OWNERSHIP AND PRINCIPALS – ALTERNATE
If the Contracting Entity, or its principals or partners, are required to provide disclosure (of persons or entities holding an ownership interest) under federal law (such as disclosure required by the Securities and Exchange Commission or the Employee Retirement Income Act), a copy of such disclosure may be attached to this Certificate in lieu of providing the information set forth in Block 4 above.

Name William G. Stannard

July 19, 2019
Date

EXHIBIT "C"
QUALIFICATIONS AND EXPERIENCE RESPONDENT

Name: Raftelis Financial Consultants, Inc.

1. Respondent shall provide a brief description of the Responder's qualifications, certifications, experience, and number of years in operation.

Raftelis was founded in 1993 and provides utilities and public-sector organizations with insights and expertise to help them operate as high-performing, sustainable entities providing essential services to their citizens. We help our clients solve their finance, organizational, and technology challenges, achieve their objectives, and, ultimately, make their communities better places to live, work, and play. Our staff have assisted more than 1,000 utilities across the U.S., including some of the largest and most complex agencies in the nation. In the past year alone, Raftelis worked on more than 600 financial/organizational/technology consulting projects for over 400 water, wastewater, and/or stormwater utilities in 40 states, the District of Columbia, and Canada.

2. Provide three (3) examples of contracts similar in size and scope that have been completed in the past 5 years. The City reserves the right to verify references for the companies identified. Ensure references have given permission to be contacted by the City.

Example Contract 1:

Company Name: Little Rock Water Reclamation Authority

Company Address: 11 Clearwater Drive, Little Rock, AR 72204

Point of Contact: BJ Harrison, Controller Phone Number: 501-688-1467

E-Mail Address: billy.harrison@lrwu.com

Brief Description of Contract Scope:
Please refer to Experience section of our proposal for a full project description.

Term of Contract (Base plus Option Years): 1 year

Year of Base Contract Award: 2014 Year Contract Completed: 2018

Base Contract Amount: $ 123,003 Total Contract Amount (including all option years) $ 123,003

Did the contract contain a liquidated damages clause? ☐ YES ☑ NO

If yes, were damages assessed? ☐ YES ☐ NO If yes, what was the amount assessed? $ _____

EXHIBIT "C"
QUALIFICATIONS AND EXPERIENCE RESPONDENT
(CONTINUED)

Example Contract 2:
Company Name: City of Lawrence, KS

Company Address:
6 E 6th Street, Lawrence, KS 66044

Point of Contact: Mike Lawless, P.E., Deputy Director of Utilities Phone Number: 785-832-7862

E-Mail Address: mlawless@lawrenceks.org

Brief Description of Contract Scope:
Please refer to Experience section of our proposal for a full project description.

Term of Contract (Base plus Option Years): 1 year
Year of Base Contract Award: 2015 Year Contract Completed: 2017
Base Contract Amount: $ 114,520 Total Contract Amount (including all option years) $ 114,520
Did the contract contain a liquidated damages clause? ☐ YES ☑ NO
If yes, were damages assessed? ☐ YES ☐ NO If yes, what was the amount assessed? $ _____

Example Contract 3:
Company Name: City of Suffolk, VA

Company Address:
442 W Washington St, Suffolk, VA 23434

Point of Contact: Al Moor, P.E., Director of Utilities Phone Number: 757-923-3640

E-Mail Address: amoor@city.suffolk.va.us

Brief Description of Contract Scope:
Please refer to Experience section of our proposal for a full project description.

Term of Contract (Base plus Option Years): 5 years with annual renewals
Year of Base Contract Award: 2015 Year Contract Completed: Ongoing
Base Contract Amount: $ 194,003 (year 1) Total Contract Amount (including all option years) $ 776,450 awarded to date (through year 4)
Did the contract contain a liquidated damages clause? ☐ YES ☑ NO
If yes, were damages assessed? ☐ YES ☐ NO If yes, what was the amount assessed? $ _____

EXHIBIT "D"
AFFIDAVIT OF REJECTION OF COVERAGE
FOR WORKERS' COMPENSATION UNDER NRS 616B.627 AND NRS 617.210

In the State of Nevada, County of Clark, Raftelis Financial Consultants, Inc., being duly sworn, deposes and says:

1. I make the following assertions pursuant to NRS 616B.627 and NRS 617.210.

2. I am a sole proprietor who will not use the services of any employees in the performance of this Contract with the City of Boulder City.

3. In accordance with the provisions of NRS 616B.659, I have not elected to be included within the terms, conditions and provisions of chapters 616A to 616D, inclusive, of NRS, relating thereto.

4. I am otherwise in compliance with the terms, conditions and provisions of chapters 616A to 616D, inclusive, of NRS.

5. In accordance with the provisions of NRS 617.225, I have not elected to be included within the terms, conditions and provisions of chapter 617 of NRS.

6. I am otherwise in compliance with the terms, conditions and provisions of chapter 617 of NRS.

7. I acknowledge that the City of Boulder City will not be considered to be my employer or the employer of my employees, if any; and that the City of Boulder City is not liable as a principal contractor to me or my employees, if any, for any compensation or other damages as a result of an industrial injury or occupational disease incurred in the performance of this Contract.

I, William Stannard, PE, do here swear under penalty of perjury that the assertions of this affidavit are true.

Signed this 19 day of August, 2019

Signature _____

EXHIBIT "E"
NON-COLLUSION AFFIDAVIT

State of Missouri County of Jackson County
William Co. Stanwyck being first duly sworn deposes that:

(1) He/She is the Chairman of the Board of Raftelis Financial Consultants, Inc., the Firm that has submitted the attached Proposal;

(2) He/She is fully informed respecting the preparation and contents of the attached Proposal and of all pertinent circumstances respecting such Proposal;

(3) Such Proposal is genuine and is not a collusive or sham Proposal;

(4) Neither the said Firm nor any of its officers, partners, City, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly, with any other vendor, firm, or person to submit a collusive or sham proposal in connection with the contract or agreement for which the attached Proposal has been submitted or to refrain from making a proposal in connection with such contract or agreement, or collusion or communication or conference with any other firm, or, to fix any overhead, profit, or cost element of the proposal price or the proposal price of any other firm, or to secure through collusion, conspiracy, connivance, or unlawful agreement any advantage against the City of Boulder City or any person interested in the proposed Contract or agreement; and

(5) The Proposal of service outlined in the Proposal is fair and proper and is not tainted by collusion, conspiracy, connivance, or unlawful agreement on the part of the Firm/team or any of its agents, representatives, City, employees, or parties including this affiant.

(Signed): William D Stanwyck
Title: CHAIRMAN

CITY OF BOULDER CITY
401 California Avenue
Boulder City, NV 89005
www.bcnv.org

July 16, 2019

City of Boulder City
RFP 2019-07 Utilities Rate Study
Addendum No. 1

The deadline for questions for this proposal was 12:00 p.m., Thursday, July 15, 2019. The following are the questions that we received and answers to those questions. A copy of this addendum must be signed and returned with your proposal.

Question 1. Does the City have any milestones or target dates for study phases or results? *Answer: The City would like to complete the rate study by the end of this calendar year.*

Question 2. What is the budget for this study? *Answer: $200,000*

Question 3. Does the City expect Phase 2, Stakeholder Engagement, to continue throughout the course of the study or to occur prior to phase 3? *Answer: Throughout the course of the study.*

Question 4. When was the last Solid Waste Utility Cost of Service and Rate Design Study conducted? *Unknown.*

Question 5. Does the City have any particular rate design mechanisms it wants explored for this study? Does the City simply want the current rate mechanisms updated? *Answer: It is anticipated that various rate mechanisms will be explored.*

Question 6. The City requests copies of relevant qualifications and certifications (Part 3, Item #4). Would Client references from similar projects fulfill this request or can the City offer additional clarification? *Answer: The City would like copies of any professional certifications and licenses your business or personnel performing this project may have.*

Question 7. Does Boulder City have an anticipated or intended schedule for this project and/or a date for delivery of the Final Report? If so, what is that schedule or end date? *Answer: See response to Question 1.*

Question 8. Does Boulder City anticipate that it will have all or most relevant data collected and ready for delivery to the consultants for this project when requested? If not, what is the estimated percentage of the data that will require data gathering efforts before delivery to the consultant for this project? *Answer: The city anticipates that the consultant will provide a list of data requests for the city to provide based on their experience and expertise.*

Question 9. How frequently does the Boulder City Utility Advisory Committee meet? Does the City Council have a utility subcommittee, and if so, how often does it meet? *Answer: The Utility Advisory Committee has yet to determine its meeting schedule but it is anticipated that it will be no more than once a month but not less than quarterly.*

Question 10. Does Boulder City have its own standing or current population growth model and demand forecasts that it intends to use for this project? Does it anticipate relying on the consultants for this project to establish or refine its growth and demand projections? *Answer: The Consultant will be expected to work with our Community Development staff to obtain current and future population forecasts.*

Question 11. Does Boulder City have in place a current strategic plan or other document discussing anticipated expenditures and capital improvements for any or all of the utilities? If so, is it willing to share the strategic plan(s) with potential bidders? *Answer: The City Strategic Plan and current Capital Improvement Plan are available on the City website.*

Question 12. When was the last time the City of Boulder City completed a utility rate study? Was it done internally or by an outside consulting firm? Is there a report available for review? *Answer: A copy of the last rate study that was completed. The document is 90 pages long and too large to attach to this Addendum. If interested in obtaining a copy, please email Paul Sikora, and he will email you a pdf of the document.*

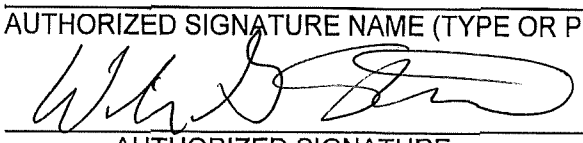
Question 13. For the fee proposal, does Boulder City have a preferred model? For example, time and materials, flat fee, etc. *Answer: An hourly rate schedule should be sufficient based upon the hourly rates for each project team member.*

Paul Sikora
Purchasing Manager

By signing below, I indicate I have received Addendum No. 1 for RFP 2019-07 Utilities Rate Study and I acknowledge all requirements of this addendum and will submit this signed page with my quote.

Raftelis Financial Consultants, Inc.
LEGAL NAME OF FIRM

William Stannard, PE
AUTHORIZED SIGNATURE NAME (TYPE OR PRINT


AUTHORIZED SIGNATURE

July 19, 2019
DATE

Chairman of the Board
TITLE

816-285-9022
TELEPHONE NUMBER

3013 Main St., Kansas City, MO 64108
ADDRESS OF FIRM, CITY, STATE, ZIP CODE

E-MAIL ADDRESS: wstannard@raftelis.com