Exhibit No.: _____
Issues: Billing Normalization, CCOS, Rate Design
Witness: Thomas O'Neill
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Sponsoring Party: Liberty Utilities (Missouri Water) LLC d/b/a Liberty
Case Nos.: WR-2024-0104 and SR-2024-0105
Date Testimony Prepared: March 2024

Before the Public Service Commission of the State of Missouri

Direct Testimony

of

Thomas O'Neill

on behalf of

Liberty Utilities (Missouri Water) LLC d/b/a Liberty

March 13, 2024

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LIBERTY UTILITIES (MISSOURI WATER) LLC D/B/A LIBERTY
BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION
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SUBJECT **PAGE**

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I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Thomas O'Neill Jr. My business address is 999 17th Street, Suite 700, Denver, Colorado, 80202.

Q. By whom are you employed and in what capacity?

A. I am employed by FTI Consulting, Inc. I serve as a Director in the Power, Renewables and Utilities practice within FTI's Corporate Finance segment.

Q. On whose behalf are you testifying in this proceeding?

A. I am testifying on behalf of Liberty Utilities (Missouri Water) LLC d/b/a Liberty ("Liberty" or the "Company"). Liberty provides water and wastewater services to its certificated service areas in Missouri.

Q. Please describe your educational and professional background.

A. I have been a consultant in the energy industry since 2015, when I began my career with Navigant Consulting. I have since served in various roles with a focus on regulatory policy and regulatory financials. I have been involved in numerous rate case filings and have developed multiple Cost of Service and Rate Design Models used in publicly filed cases. I hold a bachelor's degree from the University of Chicago in Public Policy and a master's degree in Business Administration from the Kellogg School of Management at Northwestern University. My professional resume is provided as **Direct Schedule TO-1**.

Q. Have you previously testified before the Missouri Public Service Commission ("Commission") or any other regulatory agency?

A. I have not previously testified before this Commission. I have testified before the Arkansas Public Service Commission ("APSC") on behalf of Liberty Utilities Pine Bluff Water (Docket No. 22-064-U). I have also participated in multiple regulatory proceedings as a member of expert witness support teams in multiple states within the United States, Puerto Rico, and Bermuda.

Q. What is the purpose of your direct testimony in this proceeding?

A. The purpose of this testimony is to present and support a Class Cost of Service and resulting rate design for Liberty given the necessary rate increase requested by the Company. Further, I present and explain the benefits of Liberty's proposed rate consolidation. Specifically, the testimony includes: (a) a description of the current tariff rate areas and their rate classes such as they are included within the Company's tariff books; (b) a description of the development of the test year billing determinants; (c) Liberty's proposed consolidation of water and wastewater tariff rates and the benefits of such a consolidation; (d) the development of the Class Cost of Service ("CCOS") for the four sets of tariffed rates identified in this testimony; and (e) the resulting proposed revenue targets, rate design, and bill impacts.

Q. Is the Company proposing an alternative rate structure?

A. The tariff sheets included with the Company's direct filing were informed by the Commission's directive in the Bolivar acquisition docket that future rates for Bolivar not be consolidated with other rates until such time as the regulatory asset described in paragraph five of the Global Stipulation and Agreement has been fully recovered from Bolivar customers. However, to mitigate rate impacts, the Company is proposing an

alternative rate design that involves reallocating revenue within the wastewater modality to lessen the bill impact of the needed revenue increase.

Q. Please summarize the results present in your testimony.

A. The Company is proposing an overall revenue requirement of $17.6 million, which reflects a total adjusted rate base of $49.0 million. The Company has submitted its schedules and calculations to reflect rates designed to collect an increase of $8.1 million annually from its customers. The proposed rate design has been developed to adhere to the following principles of utility rate design: (a) rates must recover the overall cost incurred by the utility to provide reliable service; (b) rates should be shared equitably between customer classes based on the cost to serve and should have minimal cross-subsidization where possible; and (c) rate changes should be tempered by rate continuity concerns. A full summary of the revenue requirements the Company is proposing by tariff rate area is shown in Figure 1.

Figure 1: Summary of Proposed Revenue Requirement

Tariff Rate Area	Proposed Revenue Requirement	Existing Revenues	Proposed Revenue Increase / (Decrease)	Adjusted Rate Base
Missouri Water	$ 9,797,848	$ 4,202,519	$ 5,595,329	$ 27,411,394
Missouri Water Bolivar	4,320,931	1,926,171	2,394,760	9,237,729
Missouri Water - Wastewater	1,001,582	555,282	446,299	3,024,718
Missouri Water Bolivar - Wastewater	2,454,697	2,825,819	(371,122)	9,322,269
Total - Missouri Water	**$ 17,575,058**	**$ 9,509,791**	**$ 8,065,267**	**$ 48,996,110**

Per the presented rate schedules, the proposed revenue increases will be recovered through a proportional increase of each rate element to minimize inequities between customer classes.

Q. How is the remainder of your testimony organized?

A. In Section II, I explain the basis for consolidating the tariffs and discuss the benefits of consolidation. In Section III, I describe the derivation of the test year billing determinants that I used to develop the rate design. Section IV discusses the CCOS I

conducted to allocate the Company's cost of service among its customers. My proposed rate design is described in Section V. Finally, the Company's alternative rate proposal is described in Section VI.

II. CONSOLIDATION OF TARIFFS

Q. Please explain the method of consolidation that Liberty is proposing.

A. For rules and regulations and miscellaneous fees, the Company is seeking to consolidate all customers within each modality it serves (water and wastewater). For rates, the Company is seeking to consolidate all customers within each modality, with the exception of customers located in Bolivar, MO. Pursuant to the Commission's directive, there will continue to be separate rates for Bolivar customers. As such, I have developed four sets of tariff rates - one each for (1) water customers in Bolivar, (2) wastewater customers in Bolivar, (3) all water customers other than Bolivar, and (4) all wastewater customers other than Bolivar.

Q. Generally speaking, how does rate consolidation benefit customers?

A. Cost sharing and efficiencies that come from scale. Because the water industry has generally been far more fragmented in the past, it has been more susceptible to the rising cost of providing service at a clean, safe and environmentally conscious level. The rising cost associated with meeting standards defined in such legislation as the Clean Water Act and Safe Water Drinking Act are far more difficult to meet for smaller sized water companies. These costs, on top of the high capital cost already inherent in the industry, mean that smaller sized water companies without the economy of scale are at a financial disadvantage.

Q. Is this dynamic important for customers served by Liberty?

A. Very. The Company's proposal is to consolidate the rates among many small systems, many of which would struggle to support significant levels of needed investment. This means that, absent consolidation, going forward it could be more difficult to make investments required to maintain safe, reliable service; and when those investments were made, "rate shock," or sudden increases in utility rates, could be the result as "lumpy" investments are supported by relatively small numbers of customers. Having a larger customer base makes it much less of a burden to commit capital for necessary system upgrades. There are also secondary benefits, including greater transparency and reduced regulatory burdens.

Q. Is Liberty a particularly good candidate for consolidation?

A. Yes, it is a perfect candidate for rate consolidation. The Company has many more distinct operating systems and tariffs than is typical and, as I understand it, it has made and will continue to make significant investments in the integrity and efficiency of its systems moving forward. These factors create a basis for consolidation that is compelling.

III. TEST YEAR BILLING DETERMINANTS

Q. Please describe Liberty's tariff rate areas and customer classes.

A. Liberty currently has 20 sets of tariffed rates for its approximately 17,000 water and/or wastewater customers. Many of them have different rate design elements and charges, with many of the tariff rate areas serving a combination of residential, commercial, and/or industrial customers. The tariffed rates and the customers they serve are summarized below:

Figure 2: Summary of Tariff Rate Areas

Missouri Water Proposed Consolidated Tariff Rate Area	Service Area Entity	Service Type	Cust. Classes
Missouri Water	Holiday Hills	Water	Resi, Comm, Indu
	Timber Creek	Water	Resi, Comm
	Ozark	Water	Resi, Comm
	Noel	Water	Resi, Comm
	KMB	Water	Resi, Comm
	Midland Water	Water	Resi
	Bilyeu Ridge	Water	Resi
	Moore Bend	Water	Resi
	Riverfork	Water	Resi
	Taney County	Water	Resi, Comm
	Valley Woods	Water	Resi, Comm
	Franklin County	Water	Resi
	Empire	Water	Resi, Comm, Indu
	Lakeland Water	Water	Resi
	Whispering Hills	Water	Resi
	Oakbrier	Water	Resi
Missouri Water Bolivar	Bolivar	Water	Resi, Comm
Missouri Water - Wastewater	Timber Creek	Sewer	Resi, Comm
	Ozark	Sewer	Resi, Comm
	KMB	Sewer	Resi
	Valley Woods	Sewer	Resi
	Savers Farm	Sewer	Resi
	RD Sewer	Sewer	Resi
Missouri Water Bolivar - Wastewater	Bolivar	Sewer	Resi, Comm

Following consolidation, the Company will operate under two sets of water rates and two sets of wastewater rates.

Q Why is Bolivar not included in the rate consolidation proposal?

A. As noted above, a Commission order provides that future rates for Bolivar will not be consolidated with other rates until such time as certain regulatory assets associated with the acquisition have been fully recovered.[1]

[1] *Order Approving Stipulation and Agreement, Asset Transfer, and Certificates of Convenience and Necessity*, in Case Nos. WA-2020-0397 and SA-2020-0398 (December 8, 2021).

Q. Please summarize the number of customers and their usage in each of the four consolidated tariff rate areas.

A. Figure 3, below, describes customer counts and usage for each of the four consolidated tariff rate areas from the Company's test year, which is the twelve months ending December 31, 2022.

Figure 3: Summary of Test Year Billing Determinants

Tariff Area Rate	Service Type	Description	Units	Total	Resi	Comm	Indu
Missouri Water	Water	Total Customer Months	*Cust. Mo.*	**91,995**	83,269	8,319	407
		% of Total	*%*	**100%**	91%	9%	0%
		Total Consumption	*Gal (000s)*	**582,584**	350,190	125,637	106,757
		% of Total	*%*	**100%**	60%	22%	18%
		Consumption / Cust. Mo.	*Gal (000s)*	**6.33**	4.21	15.10	262.30
Missouri Water Bolivar	Water	Total Customer Months	*Cust. Mo.*	**55,771**	48,282	7,489	
		% of Total	*%*	**100%**	87%	13%	0%
		Total Consumption	*Gal (000s)*	**182,703**	94,855	87,848	-
		% of Total	*%*	**100%**	65%	35%	0%
		Consumption / Cust. Mo.	*Gal (000s)*	**5.02**	3.78	13.01	-
Missouri Water - Wastewater	Sewer	Total Customer Months	*Cust. Mo.*	**8,318**	8,198	120	-
		% of Total	*%*	**100%**	99%	1%	0%
		Total Consumption	*Gal (000s)*	**6,566**	5,141	1,425	-
		% of Total	*%*	**100%**	78%	22%	0%
		Consumption / Cust. Mo.	*Gal (000s)*	**0.79**	0.63	11.88	-
Missouri Water Bolivar - Wastewater	Sewer	Total Customer Months	*Cust. Mo.*	**54,664**	47,796	6,868	-
		% of Total	*%*	**100%**	87%	13%	0%
		Total Consumption	*Gal (000s)*	**157,684**	89,552	68,132	-
		% of Total	*%*	**100%**	70%	30%	0%
		Consumption / Cust. Mo.	*Gal (000s)*	**4.65**	3.70	11.24	-

Q. What are "customer months"?

A Customer count multiplied by twelve, for the number of months in a year. The measure is sometimes referred to as "equivalent bills."

Q. Please describe Liberty's current rate structures.

A. The Company's current tariff base rate structure is not uniform for most of the tariff rate areas. All tariffed rate areas include a monthly Customer Charge for service, which is a fixed payment made for each month of service regardless of customer consumption. The form of this charge varies across tariff rate areas: in some areas it is based on the customers' meter size, while in other areas this charge might include a certain number

of gallons used in that month. All tariff rate areas providing water service also contain some form of a volumetric Consumption Charge, which is based on the number of gallons a customer consumes in a given month. Most water tariff rate areas use a flat volumetric charge that encompasses all consumption in a given month, while some only charge for usage above a certain consumption point. Per the Company's current tariffed rates, the Customer Charge is also the Minimum Charge that any metered customer will pay per billing period.

Q. Did you use the customer count and usage data shown in Figure 3 to develop your proposed rates?

A. Yes.

Q. Where did you get the data?

A. It was provided to me by the Company.

Q. Is the data validated?

A. Yes. I understand that the Company's finance team validates the data on an ongoing basis. Of particular interest, avoiding over- or under-counting of customers or sales volumes is particularly important for rate design. Part of the Company's verification of these data is a review of customer counts and voided customer bills that result in the posting of multiple bills per month for the same customer. Totals were also checked against the Company's 2022 Annual Report filed with the Commission.

Q. Were adjustments made to these data?

A. Yes, there were two adjustments. The first adjustment concerns Bolivar water and wastewater service billing characteristics from the first two months of the test year (i.e., January and February of 2022). Due to the timing of Liberty's acquisition of Bolivar water and wastewater assets, there was no billing data available for each of these two

months, and therefore, an adjustment was necessary to accurately reflect customer count and consumption in those two months. The purpose of this adjustment was to determine reasonable assumption values to be inserted into these two months of missing data so as to accurately account for what a typical year would contain for Bolivar water and wastewater. Because taking the average of all months of available data would omit any potential seasonality, an average was taken only from 'Lower Band' consumption months as determined by the data available[2]. This average was used to generate consumption values for water service. Waste consumption for those months was then determined using a ratio of water to waste consumption by customer class of available data. A summary of the Bolivar water and wastewater adjustment can be found in Figure 4. When a full set of 12-month data is available, Liberty would insist on re-evaluating the results of the test year billing determinants in order to verify that the assumptions adopted here are producing accurate results, as this could create a difficulty in the rate design process.

[2] 'Lower Band' months in this adjustment were considered months of available data that contained less than 9% of the total Bolivar Consumption available for Residential Water service and less or equal to 8% for Commercial Water Service. These months were March, May and December for Residential Water service and March and December for Commercial Water Service.

Figure 4: Summary of Bolivar Test Year Adjustment

Customer Count

Description	Service Class	Cust. Class	Average: Feb-Apr (Applied to January)	Feb	Mar	Apr
Cust. Count - Resi	Water	Resi	**3,992**	3,995	3,991	3,991
Cust. Count - Comm	Water	Comm	**613**	602	614	623
Cust. Count - Resi	Waste	Resi	**4,009**	4,009	4,009	4,010
Cust. Count - Comm	Waste	Comm	**564**	556	561	575

Customer Consumption (000s of Gallons)

Description	Service Class	Cust. Class	Average: Low Band Months	Mar	May	Dec
Consump. - Resi	Water	Resi	13,053	12,206	13,597	13,354
Consump. - Comm	Water	Comm	5,495	5,223		5,768
Average Resi Water to Waste Ratio			96.93%			
Average Comm Water to Waste Ratio			79.24%			
Consump. - Resi	Waste	Resi	12,652			
Consump. - Comm	Waste	Comm	4,354			

Q. What was the second adjustment?

A. An adjustment to reflect a change in sales volumes in the Noel water service area, which was impacted by the closure of a large customer. As discussed by Liberty witness Antonio Penna Jr., one of this tariff rate's largest customers has since closed, and therefore, will not receive water service going forward. An adjustment was applied to remove the customer's consumption from the test year volumes data. [3]

IV. CLASS COST OF SERVICE

Q. Please describe the purpose of a Class Cost of Service Study.

A. A Class Cost of Service Study ("CCOS") is a process used to assign or allocate an appropriate portion of a regulated utility's overall revenue requirement to each of the utility's customer classes and their respective tariffs/rates. Utility rates are generally designed to collect an authorized revenue requirement, which is the total of the costs associated with providing service to its customers and must therefore be recovered in

[3] This Tyson plant consumed over 80 million gallons of water in the TY, which accounted for roughly 60% of the Noel Service Area usage.

order to make operating that utility financially viable. The CCOS determines how those costs should be allocated among the utility's customers.

Q. Please describe the steps generally followed in a CCOS.

A. A CCOS for a regulated water utility generally employs two main processes commonly known as Functionalization and Allocation. Through these processes, the total revenue requirement of the utility will first be allocated into appropriate functional cost categories, which are further described below. Once the costs have been assigned to functional categories, they are then allocated into each customer rate class for the development of rates and recovery. This methodology is further described in the American Water Works Association M1 Manual.

Q. Please list and provide a brief description of the CCOS Schedules provided in support of this testimony.

A. The submitted Schedules pertaining to the CCOS are as follows[4]:

- **Direct Schedule TO-2 CCOS Summary** – An overall summary of the results of the CCOS by each of the four tariff rate areas;
- **Direct Schedule TO-3 Rev Summary** – A summary of existing vs. proposed revenues by customer class for each of the four tariff rate areas;
- **Direct Schedules TO-5.1, TO-6.1, TO-7.1 and TO-8.1** – Summary schedules detailing the full results of the CCOS, one for each of the four tariff rate areas.

[4] As each of the four tariff rate areas necessitates a set of unique CCOS and rate design calculation schedules, or the sake of ease, all 5 series schedules refer to Missouri Water; all 6 series schedules refer to Missouri Water Bolivar; all 7 series schedules refer to Missouri Water – Wastewater; and, all 8 series schedules refer to Missouri Water Bolivar – Wastewater

- **Direct Schedules TO-5.2, TO-6.2, TO-7.2 and TO-8.2** – The functionalization of the Adjusted Test Year Rate Base, as laid out in Schedule 2, into functional cost categories for each of the four tariff rate areas;
- **Direct Schedules TO-5.3, TO-6.3, TO-7.3 and TO-8.3** – The allocation of the Functionalized rate base as derived in Schedule Functional Cost, to the customer rate classes for each of the four rate tariff rate areas;
- **Direct Schedules TO-5.4, TO-6.4, TO-7.4 and TO-8.4** – The functionalization of Operation & Maintenance ("O&M") expenses, depreciation expenses, tax expenses, and other revenue requirements into functional cost categories for each of the four tariff rate areas;
- **Direct Schedules TO-5.5, TO-6.5, TO-7.5 and TO-8.5** – Allocation of the revenue components described above and derived from Schedules 5.4/6.4/7.4/8.4 to the customer rate classes for each of the four tariff rate areas;
- **Direct Schedules TO-5.6, TO-6.6, TO-7.6 and TO-8.6**– Summary of the allocation factors used to separate Adjusted TY Rate Base into functional cost categories for each of the four tariff rate areas;
- **Direct Schedules TO-5.7, TO-6.7, TO-7.7 and TO-8.7 –** Development and summary of the allocation factors used to allocate functionalized costs to the customer rate classes for each of the four tariff rate area classes; and
- **Direct Schedules TO-5.8, TO-6.8, TO-7.8 and TO-8.8 –** Relevant operating characteristics for the Liberty-Missouri Water system for each of the four tariff rate areas.

Q. Please describe the Functional Cost Categories used in the development of this CCOS.

A. The four functional cost categories utilized in this CCOS are listed and described as follows:

- Base Cost – includes all costs incurred in order to cover the average customer use throughout a given year. These are costs that are not impacted by the peak requirements of the system and are only meant to represent the cost to serve an average customer. Generally, both capital and O&M expenses that pertain to supply, water treatment, distribution, and pumping will be included in this cost category.
- Extra Capacity – includes the costs that are incurred in order to meet customer peak use, meaning all use beyond the base or average customer use. This functional cost category will thus include capital and operational expenses associated with meeting customer use beyond the average use. This study follows the typical convention of having both a maximum day and a maximum hour functional cost category.
- Customer Costs – includes various sub-categories, including commercial, meter, and services. Each of these cost categories are for the costs associated with enabling customer access to the greater water system regardless of volumetric consumption; included in these categories are expenses for customer billing, meter reading, and other services.
- Private Fire Protection – includes the costs associated with fire protection and services. This cost category is primarily meant to include capital and O&M costs for fire hydrants.

Q. Please describe how the utility Revenue Requirement is assigned to Functional Cost Categories.

A. The revenue requirement is assigned to functional cost categories through allocation factors that are developed and assigned to each line item of capital expenses, operating expense, and other costs incurred to serve utility customers. These allocation factors are meant to assign an appropriate portion of each incurred cost to the applicable cost driver; this means that some costs will be assigned entirely to one functional cost categories, while others will be spread across multiple categories. A typical example of this is that meter reading costs will be assigned entirely to the Customer functional cost category. The costs that are assigned to multiple categories are those costs that might be associated with meeting the daily demand – those costs will be allocated to both the Base Cost and Extra Capacity Cost categories based on the relationship of average daily consumption and maximum required consumption. That is to say that the ratio of daily consumption greater than the average daily consumption will be assigned to Extra Capacity, while any further remainder will be assigned to Base Cost. All the Company's costs are assigned to one of these allocation factors and thus split into their respective functional cost buckets for the next step in the CCOS process.

Q. Please provide the results of the allocation of the Company's Revenue Requirement to each Functional Cost Category.

A. The results of allocating the revenue requirement into functional cost categories are shown in Figure 5.

Figure 5: Results of Functional CCOS

	Missouri Water		*Missouri Water Bolivar*		*Missouri Water - Wastewater*		*Missouri Water Bolivar - Wastewater*	
Functional Cost Category	Cost of Service	Percent of Total	Cost of Service	Percent of Total	Cost of Service	Percent of Total	Cost of Service	Percent of Total
Base Cost	$ 5,990,060	61.14%	$ 1,762,767	40.80%	$ 837,434	83.61%	$ 1,157,728	47.16%
Extra Capacity: Max Day	865,963	8.84%	357,195	8.27%	120,560	12.04%	226,682	9.23%
Extra Capacity: Max Hour	157,348	1.61%	41,850	0.97%	1,257	0.13%	(8,694)	-0.35%
Customer: Commercial	120,540	1.23%	327,699	7.58%	5,369	0.54%	95,635	3.90%
Customer: Meters	867,836	8.86%	238,607	5.52%	-	0.00%	-	0.00%
Customer: Services	1,659,435	16.94%	1,571,237	36.36%	36,963	3.69%	983,346	40.06%
Private Fire	136,666	1.39%	21,575	0.50%	-	0.00%	-	0.00%
Total	**$ 9,797,848**	**100.00%**	**$ 4,320,931**	**100.00%**	**$ 1,001,582**	**100.00%**	**$ 2,454,697**	**100.00%**

Q. Please describe the allocation process and the purpose it serves.

A. The purpose of the allocation process is to ensure that all the costs incurred by the Company are appropriately assigned to each customer rate class based on how much each customer rate class contributes to those costs being incurred. Liberty-Missouri Water has three (3) customer rate classes: Residential, Commercial, and Industrial. These customer rate classes are defined based on similarities shared between customers, i.e., similar characteristics to serve or equipment used to receive service.

Q. Please describe how the Functional Cost Categories are allocated to customer rate classes.

A. The costs that have been separated into functional cost categories are assigned to each customer class based on the underlying cost to serve each customer class, as determined by the following cost drivers:

- The total annual consumption as per the test year billing determinants;
- Peak rates of use by each customer rate class;
- Total amount of customer rate class bills per test year billing determinants;
- The number of equivalent meters; and
- The number of equivalent services.

The average and excess demands and capacity are used to allocate the Base Cost and Extra Capacity functional cost categories, and so on. The development of, and assignment of, each of these cost drivers to the customer rate classes is detailed in the 0.7 series of Direct Schedules (i.e., Direct Schedules 5.7, 6.7, 7.7 and 8.7).

Q. Please provide the results of the CCOS after Functional Costs have been allocated to customer classes.

A. The results of the CCOS are shown in Figure 6:

Figure 6. Results of Allocated CCOS

	Missouri Water		*Missouri Water Bolivar*		*Missouri Water - Wastewater*		*Missouri Water Bolivar - Wastewater*	
Customer Rate Class	Cost of Service	Percent of Total	Cost of Service	Percent of Total	Cost of Service	Percent of Total	Cost of Service	Percent of Total
Residential	$ 6,298,130	64.28%	$ 2,829,294	65.48%	$ 670,285	66.92%	$ 1,620,853	66.03%
Commercial	2,182,121	22.27%	1,491,636	34.52%	331,296	33.08%	833,845	33.97%
Industrial	1,317,596	13.45%	-	0.00%	-	0.00%	-	0.00%
Total	**$ 9,797,848**	**100.00%**	**$ 4,320,931**	**100.00%**	**$ 1,001,582**	**100.00%**	**$ 2,454,697**	**100.00%**

V. RATE DESIGN

Q. Please list and describe the Rate Design Schedules submitted in support of this testimony.

A. The schedules submitted pertaining to Rate Design are[5]:

- **Direct Schedules TO-4.1 and TO-4.2** – Summary schedules of typical assumed bill impacts for water and wastewater customers, respectively;
- **Direct Schedules TO-5.9, TO-6.9, TO-7.9 and TO-8.9** – Details the Test Year **Direct** Billing Determinants summary for each of the four tariff rate areas;
- **Direct Schedules TO-5.10, TO-6.10, TO-7.10 an TO-8.10** – Details the calculation of each tariff rate area proposed fixed charge;
- **Direct Schedules TO-5.11, TO-6.11, TO-7.11 and TO-8.11** – Details the calculation for each tariff rate area proposed volumetric charge; and
- **Direct Schedule TO-5.12, TO-6.12, TO-7.12 and TO-8.12** – Details the average bill impacts for all customer rate classes from present to proposed rates. This is done through each meter size of customers within a rate class to show the potential difference in bill impacts per the proposed rates[6];

[5] As each of the four tariff rate areas necessitates a set of unique CCOS and rate design calculation schedules, for the sake of ease, all 5 series schedules refer to Missouri Water; all 6 series schedules refer to Missouri Water Bolivar; all 7 series schedules refer to Missouri Water – Wastewater; and, all 8 series schedules refer to Missouri Water Bolivar – Wastewater.

[6] In order to make the bill impact schedule less cumbersome, an assumption was made for each indicative level of consumption as to the most common meter size for that consumption level. This ensures that only one customer charge is applied in the bill impact calculation.

Q. Please summarize the proposed revenue targets for each Liberty-customer rate class.

A. The Company's existing revenues and proposed revenues by customer class are shown in Figure 7:

Figure 7: Proposed vs. Existing Revenues by Customer Class

	Missouri Water			*Missouri Water Bolivar*			*Missouri Water - Wastewater*			*Missouri Water Bolivar - Wastewater*		
Customer Rate Class	Prop. Revenues	Current Revenues	Delta (%)	Prop. Revenues	Current Revenues	Delta (%)	Prop. Revenues	Current Revenues	Delta (%)	Prop. Revenues	Current Revenues	Delta (%)
Residential	$ 6,298,130	$ 3,094,187	103.5%	$ 2,829,294	$ 1,357,052	108.5%	$ 670,285	$ 504,198	32.9%	$1,620,853	$2,220,721	-27.0%
Commercial	2,182,121	834,536	161.5%	1,491,636	569,119	162.1%	331,296	51,084	548.5%	833,845	605,098	37.8%
Industrial	1,317,596	273,796	381.2%	-	-	0.0%	-	-	0.0%	-	-	0.0%
Total	**$ 9,797,848**	**$ 4,202,519**	**133.1%**	**$ 4,320,931**	**$ 1,926,171**	**124.3%**	**$ 1,001,582**	**$ 555,282**	**80.4%**	**$2,454,697**	**$2,825,819**	**-13.1%**

Q. Why are the increases from current to proposed revenues not the same for each of the groups and for each rate class?

A. The increases from current to proposed revenues reflect the fully evaluated cost to serve each of the tariff rate areas, down to the customer class level, and are therefore by nature going to differ from each other. Further, Bolivar water and wastewater rates being excluded from rate consolidation and therefore having their own cost of service essentially necessitates that their increase be unique, based on their own cost of service.

Q. Why are you proposing a reduction in the revenues to be collected through the Bolivar wastewater rates?

A. Simply put, the cost to serve Bolivar wastewater customers, particularly residential customers, is lower than the revenues that group of customers is currently producing. If rate consolidation for Bolivar wastewater was currently authorized, Liberty would certainly do so, as balancing large capital investment over a customer base is a leading objective of that rate design.

Q. Please describe the steps you took to design the Company's rates.

A. Through the CCOS, the fixed charges for serving customers are identified. Fixed charges, often referred to as "customer-related costs," are those costs that do not vary based on a customer's usage and include the costs of meters, services, etc. Fixed rates are set in order to recover the utility's fixed costs. To do so, I determined the Company's total fixed costs and the total amount of revenue that present rates would generate. I then increased the customer charges for all customers, pro rata, in order to generate enough revenue to recover the fixed costs, based on the test year billing determinants.

Q. Did you give any special consideration to any of the tariff rate areas?

A. Yes, the Company is not proposing any volumetric charges for non-Bolivar wastewater customers, primarily because the Company does not provide the water service for many of these customers, which limits the Company's ability to validate water consumption. Thus, the fixed rates for those customers were increased to recover the entire cost of service to serve them.

Q. Please summarize your proposed fixed charge rates.

A. My proposed fixed charge rates are shown in Figure 8, below.

Figure 8: Proposed Fixed Charge Rates by Tariff Rate Area

			Customer Charge ($/ Month)						
Tariff Rate Area	Service Type	Customer Class	5/8" Meter	3/4" Meter	1" Meter	2" Meter	3" Meter	4" Meter	6" Meter
Missouri Water	Water	Resi, Comm, Indu	$ 23.63	$ 32.04	$ 49.98	$ 127.86	$ 198.31	$ 313.60	$ 595.63
Missouri Water Bolivar	Water	Resi	$ 36.19	$ 36.19	$ 36.19	$ 36.19	$ 36.19	$ 36.19	$ 36.19
		Comm	$ 42.58	$ 42.58	$ 42.58	$ 42.58	$ 42.58	$ 42.58	$ 42.58
Missouri Water - Wastewater	Wastewater	Resi, Comm	$ 118.67	$ 118.67	$ 118.67	$ 118.67	$ 118.67	$ 118.67	$ 118.67
Missouri Water Bolivar - Wastewater	Wastewater	Resi	$ 24.64	$ 24.64	$ 24.64	$ 24.64	$ 24.64	$ 24.64	$ 24.64
		Comm	$ 27.26	$ 27.26	$ 27.26	$ 27.26	$ 27.26	$ 27.26	$ 27.26

Q. What was the next step?

A. By subtracting the amount of revenue the fixed charges would generate from the allocated revenue requirement, I was able to determine how much revenue would need

to be generated from the volumetric charges. Using that information, and the test year billing determinants that I described previously, I was able to calculate rates for each class of customer within each of the tariff rate areas, except non-Bolivar wastewater, which does not have a volumetric charge for reasons I describe above. Proposed volumetric rates are shown below.

Figure 9: Proposed Volumetric Charge Rates by Tariff Rate Area

Tariff Rate Area	Service Type	Customer Class	Proposed Volumetric Charge ($ / 1,000 Gal.)
Missouri Water	Water	Resi	$ 10.38
		Comm	$ 13.75
		Indu	$ 11.74
Missouri Water Bolivar	Water	Resi	$ 10.55
		Comm	$ 12.86
Missouri Water - Wastewater	Wastewater	Resi	
		Comm	
Missouri Water Bolivar - Wastewater	Wastewater	Resi	$ 4.42
		Comm	$ 9.19

Q. Have you developed a schedule(s) to show expected average customer bill impacts at the proposed rates as compared to the existing rates?

A. Yes. **Direct Schedule 4.1** provides a summary of assumed typical bill impacts for water customers, and **Direct Schedule 4.2** provides the same for wastewater customers. **Direct Schedules 5.12, 6.12, 7.12** and **8.12** provide more in-depth calculations of these typical bill impacts.

VI. ALTERNATIVE RATE PROPOSAL

Q. Please summarize the Company's alternative rate design proposal.

A. The alternative rate design is based on the same rate design that I describe previously, except that I have adjusted the amount of revenues that would be collected from each of the four tariff rate areas by increasing the amount of revenue that would be collected from Bolivar wastewater customers and decreasing the amount of revenue that would be collected from the other three tariff rate areas. I then adjusted the fixed and volumetric rates shown above pro rata in order to collect the appropriate amount of revenue from each group.

Q. What is the purpose of those adjustments?

A. As I described previously, rate continuity is an important consideration in rate design. Under my proposed rates, certain customers experience significant bill impacts, particularly residential customers in the non-Bolivar wastewater group. Under the proposed rates, customers in KMB, Valley Woods, and Savers Farms will see their monthly bills increase from $46.21/month to $118.67/month. Customers in this tariff service area will see bills based only a fixed charge, so the difference in monthly bills is the difference in that charge.

Q. Is that an unreasonable result?

A. Not necessarily. As is sometimes the case when designing rates, two of the core objectives conflict. In this instance, the CCOS I conducted indicates that the cost to serve customers in those areas is higher, so the principle of aligning rates with cost causality would indicate that their rates should be higher. That said, large increases are always a concern, particularly for residential customers. For that reason, the Company and I have developed an adjustment to mitigate the impact.

Q. Please describe the adjustment.

A. For reasons I discuss previously, the CCOS I conducted results in a rate decrease for wastewater customers in Bolivar. Specifically, the amount to be collected in rates from those customers decreases by $371,122. For the alternative rates, I assumed that instead of decreasing the Bolivar wastewater revenue requirement by that amount, the Bolivar wastewater rates would be held constant and instead, the proposed increase to the non-Bolivar wastewater revenue requirement would be decreased by $371,122.

Q. How does that affect the amount of revenue that will be collected in rates from each of the two tariff rate areas?

A. The impact is significant, mostly because non-Bolivar wastewater is a smaller tariff rate area than Bolivar wastewater. The adjustment is shown in Figure 10. As indicated there, the effect is to reduce the amount of revenue that rates would be designed to collect from the non-Bolivar wastewater customers by roughly 38%, from $987,098 to $615,976.

Figure 10: Adjustment to Develop Alternative Rates

	Missouri Water-Wastewater	*Missouri Water Bolivar - Wastewater*
Total current revenues	$555,282	$2,825,819
Other operating revenues	$14,484	$67,591
Current rate revenues	$540,798	$2,758,228
Proposed revenue target	$987,098	$2,387,106
Increase	$446,299	($371,122)
Adjustment	($371,122)	($371,122)
Adjusted revenue target	$615,976	$2,015,985

Q. Please explain the difference between current revenues and current rate revenues.

A. The Company collects a small amount of miscellaneous fees (i.e., reconnection fees, late charges), referred to here as non-tariff revenues, in the course of serving each of the four tariff rate areas. To account for these amounts, proposed rates are designed only to generate the required amount of tariff revenues. The non-tariff revenues collected during the test year are expected to remain constant. The magnitude of the revenues shown in Figure 10 is consistent for other customer groups. Overall, the non-tariff revenues represent roughly 3% of current revenues and will account for less than 2% of revenues if the Commission authorizes the Company's proposed rate increase.

Q. With that in mind, please summarize how much the proposed rates would increase revenues from the non-Bolivar wastewater customers?

A. As shown in Figure 10, current revenue from rates is $540,798. Under the proposed rates, that amount would increase to $987,091, an increase of roughly 83%. If the adjustment shown were applied, collections from the non-Bolivar wastewater customers would increase by $75,178, or roughly 14%.

Q. Is it fair to say that if the alternative rates are implemented, the Bolivar wastewater customers will pay more to benefit the non-Bolivar wastewater customers?

A. Yes. However, an adjustment such as the one shown above would, in my opinion, be reasonable.

Q. Please explain why.

A. Because rate design requires the balancing of interests. On the one hand, it would be ideal to set all the rates based on the cost to serve the customer groups. On the other, doing so creates a large rate increase for one group of customers. There is no definitive

guidance on how to balance those objectives. In my opinion, an adjustment like the one shown in Figure 10 would credibly balance those objectives.

Q. Please summarize how the change in target revenues would change rates.

A. Alternative rates for Bolivar wastewater and non-Bolivar wastewater are shown in Figure 11, below. The fixed charge and, thus, the monthly bill for non-Bolivar wastewater customers, decreases significantly, while each billing element and the overall bill for a Bolivar wastewater customer increases by a smaller amount. Residential rates are shown. The bill for the Bolivar wastewater customers assumes 5,000 gallons/month usage. No other changes would be assumed to be made under this alternative scenario.

Figure 11: Alternative Rates

		Missouri Water- Wastewater		*Missouri Water Bolivar - Wastewater*	
		Proposed	Indicative	Proposed	Indicative
Fixed	$/month	$ 118.67	$ 74.05	$ 24.64	$ 28.47
Volumetric					
Residential	$/1,000 gallons			$ 4.42	$ 5.11
Commerical	$/1,000 gallons			$ 9.19	$ 10.62
Bill	5,000 gallons	$ 118.67	$ 74.05	$ 37.91	$ 43.80

Q. Does this conclude your direct testimony?

A. Yes.

VERIFICATION

I, Thomas O'Neill, under penalty of perjury, on this 13th day of March 2024, declare that the foregoing is true and correct to the best of my knowledge and belief.

/s/ Thomas O'Neill