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MISSOURI PUBLIC SERVICE COMMISSION

COMMISSION STAFF DIVISION

WATER AND SEWER DEPARTMENT

REBUTTAL TESTIMONY

OF

MATTHEW J. BARNES

LIBERTY UTILITIES (MISSOURI WATER), LLC
D/B/A LIBERTY UTILITIES

CASE NO. WR-2018-0170

Jefferson City, Missouri
July 2018

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LIBERTY UTILITIES (MISSOURI WATER), LLC D/B/A LIBERTY UTILITIES

CASE NO. WR-2018-0170

Q. Please state your name and business address.

A. Matthew J. Barnes, P.O. Box 360, Jefferson City, Missouri, 65102.

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

A. I am employed by the Missouri Public Service Commission ("Commission") as a Utility Regulatory Auditor IV.

Q. Are you the same Matthew J. Barnes who sponsored direct testimony on rate design filed in this case on June 22, 2018?

A. Yes.

Q. What is the purpose of your Rebuttal Testimony?

A. The purpose of my Rebuttal Testimony is to explain four topics. The first is explain to the Commission an error Staff corrected to its rate design filed in its direct testimony on June 22, 2018. I will also explain the updates to Staff's rate design recommendation for Liberty Utilities (Missouri Water), LLC D/B/A Liberty Utilities ("Liberty" or "Company") as well as an update to Staff's alternative rate design recommendation. Finally, I will briefly explain Staff's understanding of Liberty's rate design proposal in this case.

Rate Design Error

Q. What was the error in Staff's rate design recommendation filed June 22, 2018?

A. The error was discovered in Staff's Silverleaf's rate design. As Staff was finalizing its testimony, it was discovered that there was an error in Staff's workpapers, which allowed the wrong charge for the 3/4-in. meter to be reflected in testimony. An incorrect factor used to calculate the relative incremental customer charges among different sizes of meters was used. The error caused the commodity charges to be higher than appropriate. This has since been corrected.

Rate Design Update and Staff's Updated Alternative Rate Design Proposal

Q. After correcting for the error, has Staff made any other updates to its rate design?

A. Yes. As Staff Witness Paul Harrison explains in his rebuttal testimony, Staff reconciled Contributions in Aid of Construction, or CIAC. This adjustment increased the amount of CIAC, which causes rate base to decrease. The decrease in rate base resulted in changes to interest expense, return on equity, income taxes, and the overall total cost of service. For more information, please see the rebuttal testimony of Staff Witness Paul Harrison.

Q. Staff proposed an alternative rate design in its direct testimony. Has that been updated as well?

A. Yes. Staff updated its alternative rate design proposal as a result of the change to CIAC. See Schedule MJB-r1.

Liberty's Rate Design Proposal

Q. On Page 8, line 11 through Page 9, line 16, Company Witness Jill Schwartz discusses consolidation of customer rates in this rate case. In particular, she proposes to consolidate the KMB and Noel water systems. What is Staff's response to this proposed consolidation?

A. Staff recommends the Commission maintain the current rate design structure. As mentioned in my direct testimony, there are benefits to District-Specific Pricing (DSP) versus Single-Tariff Pricing (STP). DSP takes the costs of providing service for each individual service area and develops rates based upon that service area's cost of service. Thus, the rates those ratepayers in a given service area pay cover costs associated with providing service to only that service area. The primary benefit of STP is that it spreads out costs to a larger customer base. This helps mitigate the impact of large capital expenditures that need to be made by the Company in any particular district. This mechanism works best; however, when there is a large customer base. However, neither the combined customer base of KMB and Noel, nor even all of the served population, is sufficiently large to provide this mitigation.

Q. Does Ms. Schwartz propose consolidating all of Liberty's water systems?

A. No. She proposes to consolidate the KMB and Noel water systems. The Silverleaf systems would maintain separate rates.

Q. What is Staff's concern with Liberty's proposal for consolidating the KMB and Noel water systems?

A. As mentioned in my direct testimony, DSP is appropriate in this case because each system is unique in that each system is relatively small customer-wise, and the costs to serve Liberty's customers vary among each system. The cost of service for each system

varies based on number of customers, different usage patterns, or the cost to replace or upgrade plant and infrastructure. For example, Noel is a small city that has 665 water customers, a majority of which are permanent residents. Noel is the only system in Liberty that serves industrial customers. Noel is a municipal system and brings with it special challenges, such as coordinating distribution system maintenance with the city's planned street work, other utilities' maintenance needs, street closures and traffic management, etc. Noel has a significantly higher number of water customers with 665 compared to KMB's water customers that range from 19 customers to 185. These smaller KMB systems with much shorter distribution systems are both simpler to operate and less challenging to maintain. KMB has a combination of permanent customers and time-share customers. KMB currently does not have any industrial customers in its service area and all of KMB's systems are in the neighboring Jefferson and Franklin Counties. All of these small, remote systems are served by contract operators. With the DSP approach, if there are capital projects, then only the customers that use the investment in their service area will pay for the investment. Liberty's service areas are not physically connected and are geographically located far apart from each other. Thus, capital investment in one service area does not provide benefit to customers in another service area.

Q. Did Liberty develop a higher customer and commodity charge for 5/8-in. metered customers verses 3/4-in. metered customers with her consolidation approach?

A. Yes. According Ms. Schwartz's Schedule JMS-2, the customer charge is $24.02 and $21.48 for a 5/8-in. and 3/4-in. meter customer, respectively. The commodity charge is $5.13 and $4.19 for a 5/8-in. and 3/4-in. meter customer, respectively.

Q. What does this imply?

A. This implies that when KMB and Noel are consolidated, the cost to serve 5/8-in. metered customers is more expensive than the cost to serve 3/4-in. metered customers.

Q. Should 5/8-in. meter customers pay more than 3/4-in. meter customers because of consolidation?

A. Typically, that is not the case. In order to set rates for the different size meters, a base meter rate must be in place. The customer charge is generally based on a 5/8-in. meter. Then, for each meter greater than 5/8-in., a factor is used to determine the customer equivalents to calculate the customer charge. The following illustrates the calculation of the Customer Charge and the role the factors play for each different size meters:

Customer Charge	Number	Factor	Customer Equivalents	Customer Charge
5/8" Meter	613	1	613.0	$ 23.35
3/4" Meter	20	1.4	28.0	$ 32.68
1" Meter	20	1.7	34.0	$ 39.69
2" Meter	8	5.3	42.4	$ 123.74
4" Meter	2	14.0	28.0	$ 326.85
6" Meter	2	21	42.0	$ 490.27
			787.4	

Q. What support do you have that the customer charge is typically based on a 5/8-in. meter?

A. According to *Principles of Water Rates, Fees, and Charges,*[1] a source commonly referenced when developing water utility rate designs:

> Typically the meter size, which is generally used as the *base* or *minimum*, is the smallest available. The 5/8-in. meter has traditionally been the most prevalent meter size found in many water utilities, and, until recently, has also been the size most often used for single-family residential customers.

[1] Page 383 through 385 of the Manual of Water Supply Practices, M1, Principles of Water Rates, Fees, and Charges, Seventh Edition. American Water Works Association.

The 5/8-in. meter sets the minimum threshold for the costs to be measured for larger-volume customers. The industry understanding is that due to being the smallest size, the 5/8-in. meter is cheaper and less costly to install on an individual meter basis.

Q. Did Liberty develop its rate design based on a 5/8-in. meter equivalent?

A. No. If Liberty would have based its rate design on a 5/8-in. meter equivalent, then the 3/4-in. customer charge would be higher than the 5/8-in. meter customer charge, which is typically seen in most rate designs. If the Commission accepts Liberty's rate design, 961 customers with a smaller 5/8-in. meter will be paying more than customers with a larger 3/4-in. meter regardless of usage, water conservation, or the geographic location of the customer. This would be unjust and unreasonable for the 5/8-in. metered ratepayers. For those reasons, Staff recommends the Commission not adopt Liberty's rate design proposal.

Q. Did Staff propose an alternative rate design if the Commission were to consider consolidating rates?

A. Yes. Should the Commission consider consolidating rates, Staff recommends consolidation of only the KMB water systems. Staff's consolidation of the KMB water systems also eliminates its concern that a 3/4-in. meter customer pays less than a 5/8-in. meter customer. Staff proposed making both meter sizes equivalent. Schedule MJB-r1 shows the rate impact of consolidating the KMB water systems. Consolidation of the KMB water systems would leave Liberty with three (3) water districts and two (2) sewer districts.

Q. Does this complete your Rebuttal Testimony?

A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In The Matter of the Application of Rate Increase for Liberty Utilities (Missouri Water), LLC d/b/a Liberty Utilities	)))	**Case No. WR-2018-0170**

AFFIDAVIT OF MATTHEW J. BARNES

State of Missouri)
) ss
County of Cole)

COMES NOW Matthew J. Barnes, and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Rebuttal Testimony*; and that the same is true and correct according to his best knowledge and belief. Further the Affiant sayeth not.

Matthew J. Barnes

Matthew J. Barnes

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 19th day of July, 2018.

Dianna L. Vaught

NOTARY PUBLIC

DIANNA L. VAUGHT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: June 28, 2019
Commission Number: 15207377

Staff's Alternative Water Rate Design

Residential Customer Charge

	Residential	Current Rate	Proposed Rate	Dollar Change	Percent Change
Cedar Hill	3/4" Meter	$ 8.68	$ 29.94	$ 21.26	244.92%
City of Scotsdale	5/8" Meter	$ 42.42	$ 29.94	$ (12.48)	-29.42%
Crest View Acres	5/8" Meter	$ 12.45	$ 29.94	$ 17.49	140.47%
High Ridge	5/8" Meter	$ 6.54	$ 29.94	$ 23.40	357.78%
Hillshine	5/8" Meter	$ 14.28	$ 29.94	$ 15.66	109.66%
Lakewood Hills	5/8" Meter	$ 13.53	$ 29.94	$ 16.41	121.28%
Warren Woods	5/8" Meter	$ 23.39	$ 29.94	$ 6.55	28.00%

Residential Commodity Charge

	Residential	Current Rate	Proposed Rate	Dollar Change	Percent Change
Cedar Hill	3/4" Meter	$ 1.84	$ 6.65	$ 4.81	261.46%
City of Scotsdale	5/8" Meter	$ 5.52	$ 6.65	$ 1.13	20.49%
Crest View Acres	5/8" Meter	$ 3.67	$ 6.65	$ 2.98	81.22%
High Ridge	5/8" Meter	$ 2.44	$ 6.65	$ 4.21	172.57%
Hillshine	5/8" Meter	$ 2.77	$ 6.65	$ 3.88	140.10%
Lakewood Hills	5/8" Meter	$ 3.51	$ 6.65	$ 3.14	89.48%
Warren Woods	5/8" Meter	$ 5.29	$ 6.65	$ 1.36	25.72%