Exhibit No.: _____
Issues: Depreciation
Witness: Dane A. Watson
Type of Exhibit: Direct Testimony
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

Dane A. Watson

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 Dane A. Watson. My business address is 101 E. Park Blvd, Suite 220, Plano, TX, 75074.

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

A. I am a Partner of Alliance Consulting Group. Alliance Consulting Group provides consulting and expert service to the utility industry.

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").

Q. Please describe your educational and professional background.

A. I hold a Bachelor of Science degree in Electrical Engineering from the University of Arkansas at Fayetteville and a Master's Degree in Business Administration from Amberton University. Since graduation from college in 1985, I have worked in the area of depreciation and valuation. I founded Alliance Consulting Group in 2004 and am responsible for conducting depreciation, valuation, and certain accounting-related studies for clients in various industries. My duties related to depreciation studies include the assembly and analysis of historical and simulated data, conducting field reviews, determining service life and net salvage estimates, calculating annual depreciation, presenting recommended depreciation rates to utility management for its consideration, and supporting such rates before regulatory bodies.

My prior employment from 1985 to 2004 was with Texas Utilities Electric Company and successor companies ("TXU"). During my tenure with TXU, I was responsible for, among other things, conducting valuation and depreciation studies for the domestic TXU companies. During that time, I served as Manager of Property Accounting Services and Records Management in addition to my depreciation responsibilities.

I have twice been Chair of the Edison Electric Institute ("EEI") Property Accounting and Valuation Committee and have been Chairman of EEI's Depreciation and Economic Issues Subcommittee. I am a Registered Professional Engineer in the State of Texas and a Certified Depreciation Professional. I am a Senior Member of the Institute of Electrical and Electronics Engineers ("IEEE") and served for several years as an officer of the Executive Board of the Dallas Section of IEEE as well as national and global IEEE offices. I served as President of the Society of Depreciation Professionals twice, most recently in 2015.

Q. Do you hold any special certification as a depreciation expert?

A. Yes. The Society of Depreciation Professionals ("SDP") has established national standards for depreciation professionals. The SDP administers an examination and has certain required qualifications to become certified in this field. I met all requirements and hold a Certified Depreciation Professional certification.

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

A. Yes. I have testified before the Commission in the following cases: ER-2021-0312, EO-2018-0013, GR-2018-0013 and GR-2024-0106 on behalf of The Empire District Electric Company and Liberty Utilities (Midstates Natural Gas) Corp. I have conducted

depreciation studies, filed written testimony, and appeared before numerous other state and federal agencies in my 39-year career in performing depreciation studies. A listing of my testimony appearances is found in **Direct Schedule DAW-1**.

II. PURPOSE

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

A. Alliance Consulting Group was retained by Liberty to conduct a depreciation rate study for its depreciable tangible assets subject to the Commission's jurisdiction. The purpose of my testimony is to sponsor and explain the recent depreciation study completed for the Company and to support and justify the recommended depreciation rate changes for the Company's facilities based on the results of the depreciation study.

Q. When was the last time that the Commission approved a change in the Company's comprehensive depreciation rates?

A. The Company's comprehensive depreciation rates were last approved in Case No. WR-2018-0170, nearly six years ago. As the Company has added various water and/or wastewater systems to its rate base, the Commission has approved depreciation rates for each system as the assets were acquired.

Q. Do you sponsor any schedules?

A. Yes. I am sponsoring the depreciation study conducted by Alliance Consulting Group for the Company. The depreciation study is attached to my testimony as **Direct Schedule DAW-2**.

III. OVERVIEW OF DEPRECIATION STUDY METHODOLOGY

Q. What definition of depreciation have you used for the purposes of conducting the depreciation study and preparing your testimony?

A. The term "depreciation," as used herein, is considered in the accounting sense; that is, a system of accounting that distributes the cost of assets, less net salvage (if any), over the estimated useful life of the assets in a systematic and rational manner. Depreciation is a process of allocation, not valuation. Depreciation expense is systematically allocated to accounting periods over the life of the properties. The amount allocated to any one specific accounting period does not necessarily represent the loss or decrease in value that will occur during that particular period. Thus, depreciation is considered an expense or cost, rather than a loss or decrease in value. Liberty accrues depreciation expense based on the total of all property included in each depreciable plant account. On retirement, the full cost of depreciable property, less the net salvage amount, if any, is charged to the depreciation reserve.

Q. Please describe your depreciation study approach.

A. I conduct a depreciation study in four phases as shown in my **Direct Schedule DAW-2**. The four phases are: Data Collection, Analysis, Evaluation, and Calculation. During the initial phase of the study, I collect historical data to be used in the analysis. After the data is assembled, I perform analyses to determine the life and net salvage percentage for the different property groups being studied. The information obtained from field personnel, engineers, and/or managerial personnel, combined with the study results, are then evaluated to determine how the results of the historical asset activity analysis, in conjunction with the Company's expected future plans, should be applied.

Using all of these resources, I then calculate the depreciation rate for each depreciable plant account for each function.

Q. What process have you undertaken to give effect to both historical data and the Company-specific expectations in developing your service life recommendations for the Company's depreciable plant?

A. To achieve a reasonable balance between these critical components of the life analysis, I evaluated the statistical historical data and then applied informed judgment to make the most appropriate service life selections. The objective in any depreciation study is to project the remaining cost (installation, material, and removal cost) to be recovered and the remaining periods in which to recover the costs. This necessarily requires that the service life selections reflect both the Company's historic experience and its current expectations of asset lives. In order to understand the Company's expectations regarding asset lives, I interviewed Company engineers working in both operations and maintenance to confirm the historical activity and indications, current and future plans, expectations and their applicability to the future surviving assets. The interview process provides important information regarding changes in materials, operation and maintenance, as well as the Company's current expectations regarding the service life of the assets currently in use. This information is then considered along with the historical statistical data to develop the most reasonable and representative expected service lives for the Company's assets. The result of all of this analysis is reflected in the service life recommendations set forth in my depreciation study (**Direct Schedule DAW-2**).

Q. What depreciation system did you use?

A. For existing assets, the straight-line method, Average Life Group ("ALG") procedure, and remaining-life system comprise the depreciation system that was employed to calculate the annual accrual for depreciation expense in the study. For any future new acquisitions, I recommend the straight-line method, ALG procedure, and whole-life system.

Q. How are depreciation rates developed under the ALG, remaining life system?

A. In the ALG system remaining life system, the annual depreciation expense for each account is computed by dividing the original cost of the asset, less allocated depreciation reserve, less estimated net salvage, by its respective remaining life. The resulting annual accrual amount of depreciable property within an account is divided by the original cost of the depreciable property in the account to determine the depreciation rate. The calculated remaining lives and annual depreciation accrual rates were based on attained ages of plant in service and the estimated service life and salvage characteristics of each depreciable group. The comparison of the current and recommended annual depreciation rates is shown in my **Direct Schedule DAW-2**, Appendix B. The remaining life calculations are discussed below and are shown in the study workpapers.

Q. How are depreciation rates developed under the ALG, whole life system?

A. In a whole life representation, the annual accrual rate is computed by the following equation,

$$\textit{Annual Accrual Rate} = \frac{\textit{(100\% - Net Salvage Percent)}}{\textit{Average Service Life}}$$

Those rates are proposed for new acquisitions that the Company may add in the future. Those rates are shown in **Direct Schedule DAW-2**, Appendix E.

IV. SERVICE LIVES

Q. What is the significance of an asset's useful life in your depreciation study?

A. An asset's useful life was used to determine the remaining life over which the remaining cost (original cost plus or minus net salvage, minus accumulated depreciation) can be allocated to normalize the asset's cost and spread it ratably over future periods.

Q. How did you determine the average service lives for each account?

A. The establishment of an appropriate average service life for each account within a functional group was determined by using actuarial analysis. I performed actuarial analysis on the combined data base, but the indications were erratic. As discussed earlier, I interviewed Company subject matter experts ("SMEs") to understand the operation and use of the Company's assets. Graphs of the chosen Iowa Curves used to determine the average service lives for each account are found in **Direct Schedule DAW-2** and my depreciation study workpapers.

Q. Does your depreciation study reflect the changes in the useful lives of the Company's depreciable assets?

A. Yes. My study strikes a reasonable balance between the historical statistical indications seen in the analysis and Company-specific expectations for the use of the assets to serve its customers.

Q. Have you prepared a summary of the life recommendations by account?

A. Yes. Figures 1 and 2 respectively below provide the proposed life for water and wastewater assets.

Figure 1: Liberty Missouri Water Life Recommendations

			Proposed	
				Iowa
Account	**Description**		**Life**	**Curve**
Water Accounts				
3031	Misc Intangible 10 Yr		10	SQ
3033	Misc Intangible		3	SQ
3034	Misc Intangible 4 Yr		4	SQ
3035	Misc Intangible		5	SQ
3036	Misc Intangible		6	SQ
3100	Supply - Land		NA	NA
3110	Supply - Structures and Improvements		30	R2
3120	Supply-Collect & Impound Reservoirs		60	R2
3140	Supply - Wells and Springs		70	R1
3160	Supply – Mains		70	R2
3210	Pumping - Structures & Improvements		30	R2
3230	Pumping Other Production Plant		10	R1
3250	Pumping - Electric Pumping Equipment		10	R1
3251	Pumping - Submersible Electric Pumping Equipment		10	R1
3252	Pumping - High Service or Booster Pumps		10	R1
3320	Water Treatment - Equipment		10	R4
3322	Water Treatment - Chemical Feeders		5	R5
3400	Transmission and Distribution Land		NA	NA
3410	T&D Structures and Improvements		30	R2
3420	T & D - Distribution Reservoirs and Standpipes		60	R2
3430	T & D - Transmission and Distribution Mains		70	R2
3450	T & D - Services		30	R1
3460	T & D - Meters		8	R4
3461	Plastic Meters		8	R4
3470	T & D - Meter Installations		40	R2
3480	T & D - Hydrants		50	R2
3890	General - Land		NA	NA
3900	General - Struct & Improvements		30	R2
3910	General - Office Furniture & Equipment		20	SQ
3911	General - Office Computer and Electronic Equipment		5	SQ
3920	General - Transportation Equipment		11	S3

3930	GEN - Stores Equip		20	SQ
3940	General - Tools, Shop and Garage Equip		10	SQ
3950	General - Laboratory Equipment		5	SQ
3960	General - Power-Operated Equipment		10	R2
3970	General - Communication Equipment		10	SQ
3980	General - Miscellaneous Equipment		10	SQ
3990	General - Other Tangible Plant		10	SQ

Figure 2: Liberty Missouri Wastewater Life Recommendations

			Proposed	
				Iowa
Account	**Description**		**Life**	**Curve**
Wastewater Accounts				
3500	Collection - Land & Land Rights		NA	NA
3510	Collection - Structures and Improvements		25	R2
3521	Collection - Sewers Forced		70	R2
3522	Collection - Sewers Gravity		70	R2
3530	Collection - Services		40	R2
3540	Collection - Flow Measuring Devices		30	R2
3610	Pumping - Structures and Improvements		25	R2
3620	Pumping – Receiving Wells		25	R2
3630	Electric Pumping		20	R2
3650	Pumping - Other Pumping Equipment		10	R2
3701	Treatment & Disposal - Oxidation Lagoon Land		NA	NA
3710	T&D Structures & Improvements		30	R2
3720	Treatment & Disposal - Equipment		30	R2
3730	Treatment & Disposal - Plant Sewers		30	R2
3740	Treatment & Disposal - Outfall Sewer Lines		70	R2
3900	General - Struct & Improvements		30	R2
3910	General - Office Furniture & Equipment		20	SQ
3911	General - Office Computer and Electronic Equipment		5	SQ
3920	General - Transportation Equipment		11	R3
3930	General - Stores Equipment		20	SQ
3940	General - Tools, Shop and Garage Equip		10	SQ
3950	General - Laboratory Equipment		5	SQ
3960	General - Power-Operated Equipment		10	R2
3970	General - Communication Equipment		10	SQ
3990	General - Other Tangible Plant		10	SQ

V. NET SALVAGE

Q. What is net salvage?

A. While discussed more fully in the study itself, net salvage is the difference between the gross salvage (what is received in scrap value for the asset when retired) and the removal cost (cost to remove and dispose of the asset). Salvage and removal cost percentages are calculated by dividing the current cost of salvage or removal by the original installed cost of the asset.

Q. Does Liberty have any net salvage reflected in its existing depreciation rates?

A. Yes. Both the Company's statistical data and input from Company engineers confirm that the net salvage reflected in the Company's current depreciation rates is no longer representative of the costs incurred to retire some of the Company's assets. These retirement costs continue to increase and require that net salvage rates be adjusted to reflect this reality, which I have done in my study.

Q. How did you determine the net salvage percentages for each asset group?

A. I examined the experience realized by the Company by observing the actual net salvage for various bands (or combinations) of years. Using averages (such as the three-year and five-year bands) allows the smoothing of the timing differences between when retirements, removal cost, and salvage are booked. By looking at successive average bands ("rolling bands"), an analyst can see trends in the data that would indicate the future net salvage in the account. This examination, in combination with the feedback of Company engineers related to any changes in operations or maintenance that would affect the future net salvage of the asset, allowed the selection of the best estimate of future net salvage for each account. The net salvage parameter is derived from historical data as a percent of retirements for various bands (i.e., groupings of years

such as the five-year average) for each account are shown in my **Direct Schedule DAW-2**, Appendix D. As with any analysis of this type, expert judgment was applied in order to select a net salvage percentage reflective of the future expectations for each account.

Q. Is this a reasonable method for determining net salvage rates?

A. Yes. The method used to establish appropriate net salvage percentages for each account was determined by using the same methodology that was approved by the Commission in prior cases that I have been involved in (as shown in **Direct Schedule DAW-1**). It is also a methodology commonly employed throughout the industry and is a method recommended in authoritative texts.

Q. What factors can cause plant assets to experience significant levels of negative net salvage?

A. Some plant assets can experience significant negative removal cost percentages due to the timing of the addition versus the retirement. For example, a Transmission and Distribution asset in Account 342 Hydrants with a current installed cost of $500 (2022) would have had an installed cost of $35.98[1] in 1972. A removal cost of $50 for the asset calculated (incorrectly) on current installed cost would only have a -10 percent removal cost ($50/$500). However, a correct removal cost calculation would show a negative 139 percent removal cost for that asset ($50/$35.98). Inflation from the time of installation of the asset until the time of its removal must be taken into account in the calculation of the removal cost percentage because the depreciation rate, which includes the removal cost percentage, will be applied to the original installed cost of

[1] Using the Handy-Whitman Bulletin No. 198, W-3, line 42, $35.98 = $500 x 95/1320.

assets. Other factors such as the synchronization of net salvage data can also affect the level of net salvage.

Q. You mentioned earlier that the change in net salvage continues. Please elaborate.

A. The primary reason for the change in net salvage rates is that gross salvage proceeds have declined for many plant accounts while the Company continues to experience an increase in removal cost for many plant accounts. More detail can be found in the Salvage Analysis section of **Direct Schedule DAW-2** and in Appendix D specifically.

Figure 3: Liberty Missouri Water Net Salvage Recommendations

Account	Description		Proposed Net Salvage %
Water Accounts			
3031	Misc Intangible 10 Yr		0%
3033	Misc Intangible		0%
3034	Misc Intangible 4 Yr		0%
3035	Misc Intangible		0%
3036	Misc Intangible		0%
3100	Supply - Land		NA
3110	Supply - Structures and Improvements		0%
3120	Supply-Collect & Impound Reservoirs		-5%
3140	Supply - Wells and Springs		-15%
3160	Supply - Mains		-5%
3210	Pumping - Structures & Improvements		0%
3230	Pumping- Other Production Plant		0%
3250	Pumping - Electric Pumping Equipment		0%
3251	Pumping - Submersible Electric Pumping Equipment		0%
3252	Pumping - High Service or Booster Pumps		0%
3320	Water Treatment - Equipment		0%
3322	Water Treatment - Chemical Feeders		0%
3400	Transmission and Distribution Land		NA
3410	T&D Structures and Improvements		0%
3420	T & D - Distribution Reservoirs and Standpipes		-5%
3430	T & D - Transmission and Distribution Mains		-5%
3450	T & D - Services		-5%
3460	T & D - Meters		-7.5%
3461	Plastic Meters		-7.5%

3470	T & D - Meter Installations		-7.5%
3480	T & D - Hydrants		-5%
3890	General - Land		0%
3900	General - Struct & Improvements		0%
3910	General - Office Furniture & Equipment		0%
3911	General - Office Computer and Electronic Equipment		0%
3920	General - Transportation Equipment		6%
3930	GEN - Stores Equip		0%
3940	General - Tools, Shop And Garage Equip		0%
3950	General - Laboratory Equipment		0%
3960	General - Power-Operated Equipment		6%
3970	General - Communication Equipment		0%
3980	General - Miscellaneous Equipment		0%
3990	General - Other Tangible Plant		0%

Figure 4: Liberty Missouri Wastewater Net Salvage Recommendations

Account	Description		Proposed Net Salvage %
Wastewater Accounts			
3500	Collection - Land & Land Rights		NA
3510	Collection - Structures and Improvements		0%
3521	Collection - Sewers Forced		-5%
3522	Collection - Sewers Gravity		-5%
3530	Collection - Services		-5%
3540	Collection - Flow Measuring Devices		0%
3610	Pumping - Structures and Improvements		0%
3620	Pumping – Receiving Wells		-20%
3630	Electric Pumping		-20%
3650	Pumping - Other Pumping Equipment		0%
3701	Treatment & Disposal - Oxidation Lagoon Land		NA
3710	T&D Structures & Improvements		0%
3720	Treatment & Disposal - Equipment		-20%
3730	Treatment & Disposal - Plant Sewers		-5%
3740	Treatment & Disposal - Outfall Sewer Lines		-5%
3900	General - Struct & Improvements		0%
3910	General - Office Furniture & Equipment		0%
3911	General - Office Computer and Electronic Equipment		0%
3920	General - Transportation Equipment		6%
3930	General - Stores Equipment		0%
3940	General - Tools, Shop and Garage Equip		0%

3950	General - Laboratory Equipment		0%
3960	General - Power-Operated Equipment		6%
3970	General - Communication Equipment		0%
3990	General - Other Tangible Plant		0%

VI. DEPRECIATION STUDY RESULTS

Q. What depreciation rates are being used to calculate depreciation expense in this case?

A. **Direct Schedule DAW-2**, Appendix A, shows the computation of the proposed depreciation rates.

Q. Have you prepared a summary of the rate changes by account?

A. Yes. A comparison of the annual depreciation accrual rates in the depreciation study compared with the rates currently in effect is shown in **Direct Schedule DAW-2**, Appendix B, which demonstrates the changes in depreciation expense for the various accounts when the proposed depreciation rates are applied to plant balances at December 31, 2022. In summary, the study supports my proposal of the following relative changes in annual depreciation expense:

Table 1- Summary of Depreciation Expense Change

Water	Increase	$683,130
Wastewater	Decrease	$(301,808)
Total	Increase	$381,322

These figures are based on plant balances at December 31, 2022, and are provided to show the relative change in annual accrual associated with the proposed rates as reflected in Appendix B of **Direct Schedule DAW-2**.

Q. Are the results of your depreciation study reflected in the test year ending December 31, 2022, Cost of Service Calculation?

A. Yes. The direct testimony of Company witness Cindy Wilson addresses how the proposed depreciation rates are reflected in the Company's cost of service calculation.

Q. What are the principal reasons for the $381 thousand difference in the amount of depreciation expense as of December 31, 2022?

A. For water accounts, most of the increase is related to a decrease in the life for services and meters. For wastewater accounts, most of the decrease is related to an increase in life for account 3720 treatment and disposal equipment. Also, both the Company's statistical data and input from Company engineers confirm that the net salvage reflected in the Company's current depreciation rates should be adjusted.

VII. CONCLUSION

Q. Please summarize the conclusions you have reached as a result of your analysis.

A. The depreciation study and analysis performed by me and under my supervision fully supports setting depreciation rates for the Company at the level I have indicated in my testimony and in **Direct Schedule DAW-2**. In this way, all customers are charged for their appropriate share of the capital expended for their benefit. The depreciation study of the Company depreciable property as of December 31, 2022, describes the extensive analysis performed and the resulting rates that are now appropriate for its respective property classes. The Company's depreciation rates should be set at the levels I recommend in order to recover the Company's total investment in property over the estimated remaining life of the assets.

Q. Does this conclude your direct testimony at this time?

A. Yes.

VERIFICATION

I, Dane A. Watson, 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/ Dane A. Watson