

FILED³

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Missouri Public
Service Commission

Exhibit No.: 105
Issues: Partial Disposition Agreement;
Revenue Requirement;
Rate Base;
Rate Case Expense;
USOA Compliance
Outside Services;
Witness: Paul R. Harrison
Sponsoring Party: MoPSC Staff
Type of Exhibit: Direct Testimony
Case No.: WR-2018-0170
Date Testimony Prepared: June 22, 2018

**MISSOURI PUBLIC SERVICE COMMISSION
COMMISSION STAFF DIVISION
WATER AND SEWER DEPARTMENT**

**DIRECT TESTIMONY
OF
PAUL R. HARRISON**

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

CASE NO. WR-2018-0170

*Jefferson City, Missouri
June 2018*

Exhibit No. 105
Date 8-16-18 Reporter TU
File No. WR-2018-0170

1 DIRECT TESTIMONY

2 OF

3 PAUL R. HARRISON

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

6 CASE NO. WR-2018-0170

7 Q. Please state your name and business address.

8 A. Paul R. Harrison, P. O. Box 360, Jefferson City, Missouri 65102.

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

10 A. I am a Regulatory Auditor with the Missouri Public Service Commission
11 (“PSC” or “Commission”).

12 **BACKGROUND OF WITNESS**

13 Q. Please describe your education, work background and testimony that you have
14 filed at the Commission.

15 A. Schedule PRH-d1 provides a detailed description of my education and work
16 background, lists the cases in which I participated and lists the formal and informal case
17 issues that I have completed during my tenure here at the Commission.

18 Q. Did you make an examination and analysis of the books and records of
19 Liberty Utilities (Missouri Water), LLC (“Liberty Utilities” or “Company”) in regard to the
20 issues raised in this case?

21 A. Yes, in conjunction with other members of Staff.

22 **EXECUTIVE SUMMARY**

23 Q. What were your primary responsibilities in this case?

1 A. As the Lead Auditor in this case, my primary area of responsibility, in
2 conjunction with other Staff members, was to review the Company's revenues, expenses and
3 rate base in order to develop a cost of service and determine Liberty Utilities' revenue
4 requirement. Staff examined information provided by the Company in response to Staff's data
5 requests, as well as the Company's general ledger, vendor operating contracts and bids,
6 Company workpapers, Liberty Utilities' current effective tariffs and Liberty Utilities'
7 PSC annual reports. In addition, Staff conducted several meetings with the Company in order
8 to obtain a better understanding of the operations of the Company.

9 Q. Who were the Staff members assigned to this case to develop Staff's cost of
10 service and what were their issues?

11 A. Staff witnesses Paul R. Harrison, David Murray, Jim Dittmer,
12 Stephen Moilanen, Brooke Richter and Debbie Duncan were assigned to this case
13 to develop the cost of service. The following is a list of the issues each were assigned
14 to review:

15 Staff witness Harrison: Payroll, Payroll Benefits, Payroll Taxes, 401k, Medical and
16 Dental Insurance, Worker's Compensation, Purchased Water, Purchased Power, Chemical
17 Expense, Rate Case Expense, Injuries and Damages, Current Income Taxes, Deferred Income
18 Taxes and Accumulated Deferred Income Taxes.

19 Staff witness Murray: Rate of Return for Staff's Revenue Requirement which
20 required specific recommendations on Capital Structure, Cost of Debt, and Return on Equity.

21 Staff Consultant witness Dittmer: Upstream Service Affiliates Adjustment and
22 Corporate Allocations.

1 Staff witness Moilanen: Annual additions and retirements as well as associated
2 Plant in Service balances and Depreciation Reserve balances; and, proposed depreciation rates
3 to be used by the Company on a going forward basis. Depreciation rates were included in the
4 Partial Disposition Agreement of this case and are awaiting approval by the Commission.

5 Staff witness Richter: Normalized and Annualized Revenues, Miscellaneous
6 Revenues, Outside Services/Contract Maintenance, Bad Debt Expense, Meter Reading
7 Expense, Transportation Expense, DNR Fees, and Property Taxes.

8 Staff witness Duncan: Rate Base, Other Rate Base Items, Customer Deposit Expense,
9 Lease Expense, Rent Expense, Contribution in Aid of Construction (CIAC) Offset,
10 Amortization Expense, Insurance Expense and PSC Assessment. These issues are addressed
11 in the Audit Department Memorandum that is attached to this testimony as Schedule PRH-d2.
12 The credentials for all witnesses are attached to this testimony as Appendix I.

13 Q. What topics are addressed in this piece of testimony?

14 A. I am sponsoring Staff's Auditing Memo (Schedule PRH-d2) and I will also
15 provide in my direct testimony Staff's Accounting Schedules Summary (Schedule PRH-d3),
16 which provides an overview of Staff's proposed revenue requirement by the current service
17 areas of Liberty Utilities. I am also sponsoring testimony on test year and update period, and
18 presenting Staff's positions on various issues including: an overview of the
19 Partial Disposition Agreement, rate case expense, NARUC USOA compliance, outside
20 services/contract maintenance and Staff's recommendation for a future rate case. All issues,
21 including those on which testimony is not provided here, are addressed in the Audit Staff's
22 Memorandum that is attached as Schedule PRH-d2.

1 **OVERVIEW OF THE PARTIAL DISPOSITION AGREEMENT**

2 Q. Did Staff conduct a full investigation of Liberty Utilities in response to the
3 Company's rate increase application?

4 A. Yes, as part of Staff's investigation, Staff met with the Company, OPC, and the
5 Interveners and provided to all parties the results of its investigation. After negotiations,
6 Staff and Liberty Utilities reached a *Partial Disposition Agreement* regarding the
7 resolution of certain issues of Liberty Utilities' rate increase request. Because there is no
8 agreement at this time on overall revenue requirement and the other issues mentioned in the
9 Audit Staff Memorandum, all parties have requested an evidentiary hearing on the unresolved
10 issues. Staff's position of these issues is addressed in the Audit Staff Memorandum which
11 is attached as Schedule PRH-d2.

12 Q. Please identify the issues that have not been resolved with the
13 *Partial Disposition Agreement* for this case.

14 A. The issues left unresolved between the parties include: (a) revenue
15 requirement, (b) return on equity, (c) capital structure, (d) rate base, (e) rate case expense,
16 (f) rate design and rate consolidation, and (g) compliance with § 393.140(4) RSMo,
17 4 CSR 240-50.030(1) and 4 CSR 204-61.020(1), the use of *The Uniform System of Accounts*.

18 **TEST YEAR AND UPDATE PERIOD**

19 Q. What is the test year and update period for this case?

20 A. Staff used a test year of the twelve months ending June 30, 2017, with an
21 update period through November 30, 2017, to develop its revenue requirement
22 recommendation in this case.

1 OVERVIEW OF STAFF'S RECOMMENDED REVENUE REQUIREMENT

2 Q. What is Staff's proposed revenue requirement in this case?

3 A. Based upon Staff's examination of Liberty Utilities books and records and
4 discussions with the Company's employees, Staff's recommended revenue requirement
5 calculation for Liberty Utilities through November 30, 2017, using a return on equity (ROE)
6 of 10.00%, is \$810,886 for water and \$179,323 for sewer for the eleven Liberty Utilities water
7 systems and three sewer systems. This revenue requirement amount involves an increase in
8 Liberty Utilities' current water and sewer rates of approximately 91.49% for water
9 and 69.08% for sewer service. The Staff Accounting Schedules for these systems are also
10 being filed with this testimony. All three of Silverleaf water systems have the same water
11 tariff rate, thus the three systems are combined into one Accounting Schedule. Both of
12 Silverleaf sewer systems have the same sewer tariff rate and are also combined into one
13 Accounting Schedule.

14 Q. What caused the water and sewer service rates to increase this much for
15 these systems?

16 A. The primary causes are the length of time since rates were last adjusted and
17 notable investments made in the systems. The Commission's last approved rate increase for
18 Liberty Utilities' KMB properties became effective on February 1, 2011, as a result of
19 Case Nos. WR-2010-0345 and SR-2010-0346. The Commission's last approved
20 rate increase for Liberty Utilities' Silverleaf properties became effective on April 2, 2007,
21 as a result of Case Nos. WR-2006-0425 and SR-2006-0426. Finally, the Commission's
22 last approved rate increase for Liberty Utilities' Noel properties became effective on
23 November 12, 2009, as a result of Case No. WR-2009-0395. Seven to eleven years have
24 passed without these systems having a rate case. Since then, Liberty Utilities has invested

1 approximately \$1,952,614 for water and \$621,830 for sewer improvements. The details for
2 the amount of the investments for each tariffed system are attached to this testimony as
3 Schedule PRH-d4. These system upgrades were needed to align with Department of
4 Natural Resource (DNR) standards and to improve quality of service for the
5 Liberty Utilities ratepayers.

6 **RATE CASE EXPENSE**

7 Q. What is the issue with rate case expense for this case?

8 A. Utility companies incur various expenses in the preparation and presentation
9 of a rate case before the Commission. Included in these costs are expenses for outside
10 counsel, expert witnesses, and miscellaneous expenses for items such as travel expenses and
11 copying costs. Staff submitted Data Request No. 0016 requesting:

12 1) a breakdown, by account charged, of the actual costs of the Company's last
13 rate case; 2) detailed rate case expense invoices for current case (i.e., detailed
14 legal fees from outside consultants, detailed invoices from expert witness fees
15 showing number of hours worked and the hourly rates, postage/federal express
16 and costs incurred by the company staff to attend case related activities in
17 Jefferson City); 3) a Company schedule showing expenses booked to account
18 928 related to the current rate case; and 4) any changes, since the last rate case
19 to policies and procedures employed by the Company to establish and control
20 the parameters for a reasonable level of rate case expense and an explanation
21 of these changes. Please continue to update rate case expense throughout this
22 case as data becomes available.

23 To date, Staff has received a spreadsheet with six expenditures for legal fees
24 totaling \$1,409. However, Staff has not received invoices or other detailed source documents
25 in order to determine rate case expense for this case. During a meeting with the Company on
26 March 28, 2018, Staff requested invoices and additional documentation for rate case expense
27 for this case, however as of the time Staff filed this testimony, Staff has not received the

1 additional information requested. Once Staff receives that documentation, Staff will update
2 rate case expense for this case.

3 **NARUC USOA COMPLIANCE**

4 Q. Please explain the issue concerning the National Association Regulatory
5 Utilities Commission (NARUC) Uniform System of Accounts (USOA).

6 A. Liberty Utilities is not maintaining its books and records in accordance with
7 the Commission's adopted version of the National Association Regulatory Utility
8 Commission, (NARUC) Uniform System of Accounts (USOA). The Missouri Public Service
9 Commission (MoPSC) adopted the 1973 version of the water NARUC USOA and
10 the 1976 version of sewer NARUC USOA; however Liberty Utilities has set its books and
11 records up according to the 1996 version of the NARUC USOA. The MoPSC has never
12 adopted the 1996 version. Using the incorrect version of the NARUC USOA causes
13 consistency and accuracy of accounting issues, because the underlying accounting data
14 required under the 1996 version of the USOA is somewhat different from the accounting data
15 required under the 1973 and 1976 USOA version. Staff recommends that Liberty Utility
16 maintain its books and records in accordance with the Commission's adopted version of the
17 National Association Regulatory Utility Commission, (NARUC) Uniform System
18 of Accounts (USOA).

19 **OUTSIDE SERVICES/CONTRACT MAINTENANCE**

20 Q. Are there any other issues that need to be addressed in your testimony?

21 A. Yes. Liberty Utilities uses outside contractors to perform water/wastewater
22 operator functions, meter reading, maintenance and operation duties for all of
23 Liberty Utilities systems except for Noel Water. The Company stated to Staff that routine

1 operation duties are provided by Noel employees; however, it would still use outside
2 operators for any type of non-routine maintenance such as main breaks. Contract maintenance
3 expenses are the most significant cost that Liberty Utilities has for ten of the eleven water and
4 all three sewer systems. Therefore, Staff recommends that Liberty Utilities perform a cost
5 benefit analysis, prior to its next rate case, in order to determine if it would be more cost
6 effective to hire and use in house employees instead of contracting the work out
7 to contractors.

8 **STAFF'S RECOMMENDATION FOR A FUTURE RATE CASE**

9 Q. Why is Staff recommending the Company file another rate case
10 within 18-24 months of the effective date in this proceeding?

11 A. Since Liberty Utilities was approved to acquire seven additional water systems
12 (Ozark International, Inc.) Case No. WM-2018-0023, in April of this year, accumulating more
13 than 900 additional customers, Staff is recommending the Commission order the
14 Company to file a rate case within 18-24 months after the effective date of rates in this matter.
15 This course of action is advisable because corporate allocations are a significant expense in
16 this case and this would also allow Liberty to demonstrate they are now in compliance
17 with § 393.140(4) RSMo, 4 CSR 240-50.030(1) and 4 CSR 204-61.020(1), the use of
18 *The Uniform System of Accounts*.

19 Q. Does this conclude your direct testimony?

20 A. Yes.

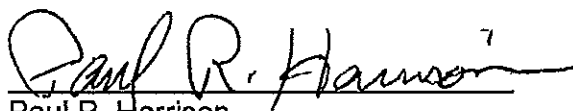
BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

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

AFFIDAVIT OF PAUL R. HARRISON

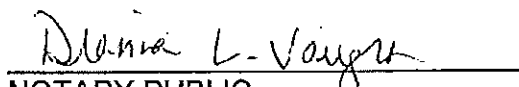
State of Missouri)
County of Cole) ss

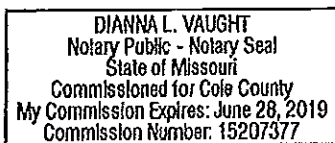
COMES NOW Paul R. Harrison and on his oath declares that he is of sound mind and lawful age; that he contributed to the attached *Direct Testimony*; and that the same is true and correct according to his best knowledge and belief. Further the Affiant sayeth not.


Paul R. Harrison

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 June, 2018.


NOTARY PUBLIC



Education, Background and Case Participation

Paul R. Harrison

I am a Utility Regulatory Auditor with the Missouri Public Service Commission (MoPSC or Commission). I have performed duties as a Utility Regulatory Auditor within the Auditing Department at the Commission since January 18, 2000. As a result of being assigned lead auditor in a significant number of rate cases, I have been responsible for the supervision of other Auditing Department employees in rate cases and other regulatory proceedings before the Commission.

I graduated from Park College, Kansas City, Missouri, where I earned Bachelor of Science degrees in both Accounting and Management with Magna Cum Laude honors in July 1995. I earned an Associate degree in Missile Technology from the Community College of the Air Force in June 1990. I attended and graduated with honors from; the Senior Non-Commission Officer (NCO) Academy, NCO Academy and Air Force Leadership School while on active duty in the USAF. I attended and received a certificate of completion of an H&R Block income tax training course in July 1996 and begin my own tax practice during that same year.

Prior to coming to work at the Commission, I was the manager for Tool Warehouse Inc. for four and one-half years. As the manager, I trained, supervised; and coordinated the daily activities of personnel assigned to the Tool Warehouse. I was responsible for the daily sales volume, performed break-even sales analysis and maintained corporate budgets. I created and; performed monthly inventory, generated inventory reports and, ordered all merchandise, (\$2.5 million), for the tool warehouse in accordance with Tool Warehouse policy and procedures. .

Prior to being the manager of the Tool Warehouse Inc, I was in the United States Air Force (USAF) for twenty-three years. During my career in the USAF, I held many different

duty positions with various levels of responsibility. I retired from active duty as the Superintendent of the 321st Strategic Missile Wing Mechanical Flight. In that capacity, I supervised 95 missile maintenance technicians and managed assets valued in excess of \$50 million.

My duties at the Commission include performing audits of the books and records of regulated public utilities under the jurisdiction of the MoPSC, in conjunction with other Commission Staff (Staff) members. In this capacity, I am required to prepare testimony and serve as a Staff expert witness on rate cases concerning the ratemaking philosophy and methodology of issues that I am assigned. As a senior auditor and the lead auditor on a number of formal and informal cases, I have participated in the supervision and instruction of auditors within the Utility Services Department.

I acquired my knowledge of the ratemaking philosophy and methodology of these topics through hands on experience and through on-the-job training working prior rate cases before this Commission. I acquired general knowledge of these topics through review of Staff work papers from prior rate cases brought before this Commission, through review of prior Commission decisions and Company's testimony with regard to these areas. In addition, I have reviewed the Commission's Annual Reports and the Company's Security and Exchange Commission (SEC) Annual Reports, Tariffs, work papers and responses to Staff's data requests addressing these topics in this case.

I have participated in approximately forty formal and forty-five informal rate case proceedings before the Commission. I was assigned as lead auditor on over seventy-five percent of these cases.

Additionally, my college coursework included accounting and auditing classes. Since commencing employment with the Commission, I have attended various in house training seminars and National Association of Regulatory Utility Commission (NARUC) training conferences.

The Schedule below lists the formal and informal rate cases along with the issues that I filed testimony and participated in before the Commission.

CASE PROCEEDING/PARTICIPATION

PAUL R. HARRISON

<u>COMPANY</u>	<u>CASE NO.</u>	<u>TESTIMONY/ISSUES</u>
SUMMARY OF FORMAL CASES		
The Empire District Electric Company	ER-2016-0023	August 2016 Surrebuttal Testimony-Pension & OPEBs; Riverton 12 Conversion / Construction Audit.
The Empire District Electric Company	ER-2016-0023	June 2016 Cost of Service Report-Pension & OPEBs; Riverton 12 Conversion / Construction Audit.
The Empire District Electric Company	ER-2014-0351	May 2015 Cost of Service Report-Pension & OPEBs; Jurisdictional Allocations; Fuel & Purchased Power; OFF-System Sales Revenue & Expense; Entergy Purchased Power Contract; Fly Ash Offset; Software Maintenance & CWC, Rate Base calculation of Fuel Coal, Fuel-Purchased Power; Fuel-Purchased Oil & Fuel-Purchased Gas. Lead Auditor
The Empire District Electric Company	ER-2012-0345	February 2013 Cost of Service Report-Pension & OPEBs; COR & State Flow-Through Income Taxes; Income Tax Current & Deferred Expense; ADIT; and Infrastructure & Tree Trimming Expense. Lead Auditor
Missouri American Water Company	WR-2011-0337 SR-2011-0338	February 2012 Surrebuttal Testimony-Unamortized Balance of the Security AAO; Roark Sewer Plant Operating Expenses and MAWC's Acquisitions.

<u>COMPANY</u>	<u>CASE NO.</u>	<u>TESTIMONY/ISSUES</u>
		Lead Auditor
Missouri American Water Company	WR-2011-0337 SR-2011-0338	January 2012 Rebuttal Testimony-Pension Tracker Mechanism and Acquisitions of Loma Linda, Aqua Missouri and Roark Water & Sewer. Lead Auditor
Missouri American Water Company	WR-2011-0337 SR-2011-0338	November 2011 Cost of Service Report- Pensions & OPEBS; Amortization of Regulatory Assets; Acquisitions; Plant in Service; Depreciation Reserve, Depreciation Expense, CIAC Amortization; Other Rate Base Items; Net Negative Salvage; Current & Deferred Income Taxes; ADIT; and Accounting Schedules. Lead Auditor
Missouri American Water Company	WR-2011-0336	August 2011 Memorandum-- Infrastructure System Replacement Surcharge (ISRS)-2011
The Empire District Electric Company	ER-2011-0004	February 2011 Surrebuttal Testimony-Infrastructure Remediation Costs; FAS 123 Accumulated Deferred Income Taxes
The Empire District Electric Company	ER-2011-0004	February 2011 Cost of Service Report-Current & Deferred Income Taxes; ADIT; and Infrastructure & Tree Trimming Expense
KCPL-GMO MPS & L&P Electric	ER-2010-0356	January 2011 Surrebuttal Testimony- Advanced Coal Credits ITC; KC Earnings Tax True-Up - Pensions & OPEBS; Current Income & Deferred Taxes Litigated- Advanced Coal Credit ITC
Kansas City Power & Light (KCPL)	ER-2010-0355	January 2011 Surrebuttal Testimony- Advanced Coal Credits ITC; KC Earnings True-Up - Pensions & OPEBS; Current Income & Deferred Taxes Litigated- Advanced Coal Credit ITC
Kansas City Power & Light (KCPL)	ER-2010-0355	December 2010 Rebuttal Testimony- Regulatory Plan Amortization Impact on Income Taxes

COMPANY	CASE NO.	TESTIMONY/ISSUES
KCPL-GMO MPS & L&P Electric	ER-2010-0356	November 2010 Cost of Service Report- Pensions & OPEBS; Current & Deferred Income Taxes; Advanced Coal Credits ITC; KC Earnings Tax and Regulatory Plan Amortization Impact on Income Taxes
Kansas City Power & Light (KCPL)	ER-2010-0355	November 2010 Cost of Service Report- Pensions & OPEBS; Current & Deferred Income Taxes; Advanced Coal Credits ITC; KC Earnings Tax and Regulatory Plan Amortization Impact on Income Taxes
The Empire District Electric Company	ER-2010-0130	April 2010 Surrebuttal Testimony – Bad Debt Expense; Infrastructure Rule Expense; State Income Tax Flow Through Prior to 1994 – Tax Timing Differences Lead Auditor
The Empire District Electric Company	ER-2010-0130	April 2010 Rebuttal Testimony – State Income Tax Flow-Through Prior to 1994 – Tax Timing Differences Lead Auditor
The Empire District Electric Company	ER-2010-0130	February 2010 Cost of Service Report- Allocations; Pensions & OPEBS; DSM Program; Amortization Rate Base & Expense; Revenues; Bad Debt; Banking Fees; Infrastructure & Tree Trimming Expense; Employee Benefits; Lease Expense; O&M Expenses New Plant; Carrying Cost New Plant; Current & Deferred Income Taxes. Lead Auditor
The Empire District Gas Company	GR-2009-0434	October 2009 Cost of Service Report- Allocations/Rents; Right-of-Way Clearing; AAO-MGP Costs; Franchise Fees; Reconciliation; Current & Deferred Income Taxes. Lead Auditor
Kansas City Power & Light (KCPL)	ER-2009-0089	April 2009 Surrebuttal- Non-Talent Assessment Severance Costs True-Up - Pensions & OPEBS; Current & Deferred Income Taxes
KCPL-GMO MPS & L&P Electric	ER-2009-0090	April 2009 Surrebuttal-Cost of Removal-Income Taxes, Regulatory Asset Amortization. True-Up - Pensions & OPEBS; Income & Deferred

COMPANY	CASE NO.	TESTIMONY/ISSUES
		<p>Taxes</p> <p>Lead Auditor</p>
Kansas City Power & Light (KCPL)	ER-2009-0089	<p>March 2009</p> <p>Cost of Service Report- Pensions & OPEBS; Non-Talent Assessment Severance Costs; Officer Expenses; Meals & Entertainment Expense; Employee Relocation Expense; Lobbying Expense; Lease Expenses; Non-Operating Cost Adjustment; Current & Deferred Income Taxes</p>
KCPL-GMO MPS & L&P Electric	ER-2009-0090	<p>March 2009</p> <p>Cost of Service Report- Pensions & OPEBS; Miscellaneous Adjustments; SJLP Merger Transition Costs; Employee Relocation Expense; Lease Expenses; Current & Deferred Income Taxes</p> <p>Lead Auditor</p>
KCPL-GMO L&P Steam	HR-2009-0092	<p>March 2009</p> <p>Cost of Service Report- Pensions & OPEBS; Miscellaneous Adjustments; Current & Deferred Income Taxes</p> <p>Lead Auditor</p>
Missouri American Water Company	WR-2008-0311	<p>October 2008</p> <p>Surrebuttal- Belleville Lab Allocations; Compensation for Services MAWC Provided to AWR</p> <p>Litigated- Corporate Allocations</p> <p>True-Up - Corporate Allocations; Income & Deferred Taxes</p> <p>Lead Auditor</p>
Missouri American Water Company	WR-2008-0311	<p>August 2008</p> <p>Cost of Service Report- Case Reconciliation; Corporate Allocations & Expenses; Belleville Lab Allocations; Compensation for Services MAWC Provided to AWR; Current & Deferred Income Taxes</p> <p>Lead Auditor</p>
Laclede Gas Company		<p>Separate Docket</p> <p>Investigation of Affiliated Transactions, Corporate Allocations & Appropriate Time Charges Between Laclede's Regulated & Unregulated Subsidiaries</p>

COMPANY	CASE NO.	TESTIMONY/ISSUES
Missouri Gas Utility	GR-2008-0060	February 2008 Cost of Service Report- Revenue Requirement Run (EMS) Merger & Acquisition Costs (Start-Up Costs); Corporate Allocations; Current & Deferred Income Taxes Lead Auditor
Missouri Gas Energy	GU-2007-0480	July 2008 Rebuttal- AAO Manufactured Gas Plant Litigated- Manufactured Gas Plant Lead Auditor
Missouri Gas Energy	GU-2007-0480	September 2007 Memorandum – AAO Manufactured Gas Plant Lead Auditor
Laclede Gas Company	GR-2007-0208	May 2007 Direct – Affiliated Operations; HVAC & Home Sale Inspection; Injuries & Damages; Insurance; 401 (k) Expenses; Pensions & OPEBS; Non-Qualified Pension Plan Expenses; Current & Deferred Income Taxes True-UP – Current & Deferred Income Taxes
Missouri Gas Energy	GR-2006-0422	November 2006 Rebuttal- Environmental Response Fund, Manufactured Gas Plant Litigated- Manufactured Gas Plant
Missouri Gas Energy	GR-2006-0422	October 2006 Direct– Revenues; Purchased Gas Adjustments; Bad Debt Expense; ECWR AAO Bad Debt: Rent; Pensions & OPEBS; Income Taxes; Franchise Taxes; Manufactured Gas Plant, and Case Reconciliation Litigated- Emergency Cold Weather Rule True-Up - Revenues; Bad Debt Expense; Pensions & OPEBS; Income Taxes
The Empire Electric Company	ER-2006-0315	July 2006

<u>COMPANY</u>	<u>CASE NO.</u>	<u>TESTIMONY/ISSUES</u>
		Rebuttal- Storm Damage Tracker
The Empire Electric Company	ER-2006-0315	June 2006 Direct- Tree Trimming Expense and Construction Over-Run Costs
Missouri Pipeline & Missouri Gas Company LLC	GC-2006-0378	November 2006 Memorandum-- Plant in Service, Depreciation Reserve, Depreciation Expense, Transactions & Acquisition Costs and Current & Deferred Income Taxes
New Florence Telephone	TC-2006-0184	October 2006 Memorandum-- Plant in Service; Depreciation Reserve; Depreciation Expense; Plant Overage; and Materials & Supplies
Cass County Telephone	TC-2005-0357	July 2006 Memorandum-- Plant in Service; Depreciation Reserve; Depreciation Expense; Plant Overage; Plant Held for Future Use and Missouri Universal Service Fund
Cass County Telephone & New Florence Telephone Fraud Investigation Case	TO-2005-0237	May 2006 Memorandum-- Fraud Investigation case involving Cass County Telephone and New Florence Telephone
Missouri Gas Energy	GR-2004-0209	June 2004 Surrebuttal - Revenues and Bad Debt Expense True-Up - Revenues; Bad Debt Expense; Current & Deferred Income Taxes
Missouri Gas Energy	GR-2004-0209	May 2004 Rebuttal - Revenues; Bad Debt Expense; and Manufactured Gas Plant Litigated- Manufactured Gas Plant
Missouri Gas Energy	GR-2004-0209	April 2004 Direct – Revenues; Purchased Gas Adjustments; Bad Debt Expense; Medical Expense; Rents; Incentive Compensation and Current & Deferred Income Taxes
Union Electric Company d/b/a AmerenUE (Gas)	GR-2003-0517	October 2003 Direct – Corporate Allocations; UEC Missouri Gas Allocations; CILCORP Allocations; Rent Expense; Maintenance of General Plant Expense; Lease Agreements; and Employee Relocation Expense

COMPANY	CASE NO.	TESTIMONY/ISSUES
Union Electric Company d/b/a AmerenUE (Electric)	EC-2002-1	June 2002 Surrebuttal - Coal Inventory; Venice Power Plant Fire; Tree Trimming Expense; and Automated Meter Reading Service
Laclede Gas Company	GR-2002-356	June 2002 Direct - Payroll; Payroll Taxes; 401k Pension Plan; Health Care Expenses; Pension Plan Trustee Fees; Incentive Compensation and Clearing Account: True- Up – Payroll; Payroll Taxes; and Clearing Accounts
Union Electric Company d/b/a AmerenUE (2 nd period, 3 rd EARP) (Electric)	EC-2002-1025	April 2002 Direct - Revenue Requirement Run; Plant in Service; Depreciation Reserve; Other Rate Base items; Venice Power Plant Fire expenditures; Tree Trimming Expense; and Coal Inventory
2 nd Complaint Case, Union Electric Company d/b/a AmerenUE (Electric) New Test Year ordered by The Commission.	EC-2002-1	March 2002 Direct - Materials and Supplies; Prepayments; Fuel Inventory; Customer Advances for Construction; Customer Deposits; Plant in Service; Depreciation Reserve; Venice Power Plant Fire Expenditures; Tree- Trimming Expense; Automated Meter Reading Expense; Customer Deposit Interest Expense; Year 2000 Computer Modification Expense; Regulatory Advisor's Consulting Fees; and Property Taxes Deposition – April 11, 2002
1 st Complaint Case, Union Electric Company d/b/a AmerenUE (Electric)	EC-2002-1	July 2001 Direct - Materials and Supplies; Prepayments; Fuel Inventory; Customer Advances for Construction; Customer Deposits; Plant in Service; Depreciation Reserve; Power Plant Maintenance Expense; Tree- Trimming Expense; Automated Meter Reading Expense; Customer Deposit Interest Expense; Year 2000 Computer Modification Expense; Computer Software Expense; Regulatory Advisor's Consulting Fees; Board of Directors Advisor's Fees and Property Taxes. Deposition – November 27 2001
Union Electric Company d/b/a AmerenUE (2 nd period, 2 nd EARP) (Electric)	EC-2001-431	February 2001 Coal Inventory

<u>COMPANY</u>	<u>CASE NO.</u>	<u>TESTIMONY/ISSUES</u>
Union Electric Company d/b/a Ameren UE (Gas)	GR-2000-512	August 2000 Direct - Cash Working Capital; Advertising Expense; Missouri PSC Assessment; Dues and Donations; Automated Meter Reading Expenses; Computer System Software Expenses (CSS); Computer System Software Expenses (Y2K); Computer System Software Expenses (EMPRV); Generation Strategy Project Expenses; Regulatory Advisor's Consulting fees and Board of Directors Advisor's fees.
SUMMARY OF INFORMAL CASES		
Ridge Creek Water	WR-2017-0042	April - 2017 Small Informal rate case - All Cost of Service items to include Rate Base; Revenues; Expenses; and Current & Deferred Taxes. Lead Auditor
Raccoon Creek Sewer	SR-2016-0202	May- 2017 Memorandum-- Cost of Service; Corporate Allocations; Corporate Payroll & Benefits; Outside Services; Revenues & Expenses; Net Rate Base; Rents; Current Income Taxes .
Rogue Creek Water & Sewer	WO-2016-0139	April - 2017 Investigatory Docket-- concerning the conduct of the court-appointed receiver for MPB & PCB Sewer
MPB & PCB Receiver Investigation	WO-2016-0139	March - 2017 Investigatory Docket-- concerning the conduct of the court-appointed receiver for MPB & PCB Sewer
Hillcrest Water & Sewer	WR-2016-0064 SR-2016-0065	May-2016 Rebuttal Testimony—Corporate Payroll & Benefits; Corporate Allocations; Audit Costs & Tax Preparation Fees Lead Auditor Litigated
Hillcrest Water & Sewer	WR-2016-0064 SR-2016-0065	April-2016 Direct Testimony— Corporate Payroll & Benefits; Corporate Allocations; Audit Costs & Tax Preparation Fees Lead Auditor Litigated

COMPANY	CASE NO.	TESTIMONY/ISSUES
Hillcrest Water & Sewer	WR-2016-0064 SR-2016-0065	<p align="center">March-2016</p> <p>Memorandum-- Cost of Service; Corporate Allocations; Corporate Payroll & Benefits; Outside Services; Revenues & Expenses; Net Rate Base; Rents; Current Income Taxes .</p> <p>Lead Auditor</p>
Missouri American Water Company Acquisition of Hickory Hills Water & Sewer	WA-2016-0019	<p align="center">November 2015</p> <p>Memorandum - Hickory Hills Acquisition by MAWC, Development of Rate Base; Revenues & Expenses; Determination of Regulatory Asset in order for Receiver to recover Court Ordered Receiver Fees.</p> <p>Lead Auditor</p>
Raytown Water Company	WR-2015-0246	<p align="center">November 2015</p> <p>Memorandum-- Cost of Service; Incentive Compensation; Affiliated Transactions; Tank Painting & Maintenance; City Permit Fees; EIERA Insurance Costs; Outside Services; Transportation & Communication Expense; Board of Directors Fees; City ROW-City of Raytown Permit/Degradation Fees; CIAC; Meter Change-out Program; PSC Assessment-Rate Case Expense; Uniform Expense; Tower Tenant Revenues; Purchased Water; Rent; Current & Deferred Income Taxes .</p> <p>Lead Auditor</p>
Ridge Creek Water Company	WA-2015-0182	<p align="center">October 2015</p> <p>Memorandum – Certificate of Convenience & Necessarily Concerning review of Feasibility Study and Development of Rate Base; Expenses & Revenues</p> <p>Lead Auditor</p>
Smithview/Kuhle H2O Water	WA-2015-0000	<p align="center">September 2015</p> <p>Memorandum – Review of Financial Ability to operate the system and or sale of the Assets</p> <p>Lead Auditor</p>
Empire District Electric Company	EO-2015-0172	<p align="center">March 2015</p> <p>Memorandum – Sale of 35-Miles of 161kV Transmission Line to Westar Energy</p> <p>Lead Auditor</p>

COMPANY	CASE NO.	TESTIMONY/ISSUES
Missouri American Water Company Acquisition of Anna Meadows	WA-2015-0019	<p align="center">January 2015</p> <p>Memorandum - Anna Meadows Acquisition & Certificate of Convenience & Necessarily Concerning review of Feasibility Study and Development of Rate Base; Expenses & Revenues</p> <p>Lead Auditor</p>
Hickory Hills Water & Sewer Receivership Case	WR-2014-0167 SR-2014-0166	<p align="center">November 2014</p> <p>Memorandum - Small Informal rate case – All Cost of Service items to include Rate Base; Revenues; Expenses; and Current & Deferred Taxes.</p> <p>Lead Auditor</p>
Missouri American Water Company Acquisition of Benton County Sewer District No. 1	SA-2015-0065	<p align="center">April 2016</p> <p>Memorandum – Benton County Acquisition & Certificate of Convenience & Necessarily Concerning review of Feasibility Study and Development of Rate Base; Expenses & Revenues.</p> <p>Lead Auditor</p>
MPB & PBC Sewer Systems Receivership Case	SR-2014-0067 SR-2014-0068 SO-2014-0052	<p align="center">September 2014</p> <p>Memorandum -- Small Informal rate case – All Cost of Service items to include Rate Base; Revenues; Expenses; and Current & Deferred Taxes</p> <p align="center">September 2013</p> <p>Memorandum -- Interim Rates – Special Surcharge; Cost of Service in order to determine if rates are sufficient to cover expenses or if this utility needs an emergency infusion of cash to provide safe and adequate service for the ratepayers.</p> <p>Lead Auditor</p>
Roy-L Water & Sewer Utilities	WR-2013-0543 SR-2013-0544	<p align="center">June 2014</p> <p>Small Informal rate case – All Cost of Service items to include Rate Base; Revenues; Expenses; and Current & Deferred Taxes.</p> <p>Lead Auditor</p>

COMPANY	CASE NO.	TESTIMONY/ISSUES
Rogue Creek Utilities, Inc. Receivership Case	WR-2013-0436 SR-2013-0435	<p style="text-align: center;">February 2014</p> <p>Memorandum - Small Informal rate case -- All Cost of Service items to include Rate Base; Revenues; Expenses; and Current & Deferred Taxes.</p> <p style="text-align: center;">May 2013</p> <p>Memorandum -- Interim Rates -- Special Surcharge; Cost of Service in order to determine if rates are sufficient to cover expenses or if this utility needs an emergency infusion of cash to provide safe and adequate service for the ratepayers.</p> <p>Lead Auditor</p>
Missouri American Water Company & Tri-State Water Acquisition Case	WO-2013-0517	<p style="text-align: center;">September 2013</p> <p>Memorandum -- Determination of net rate base to include Plant in Service; Depreciation Reserve; Other Rate Base Items including CIAC and Revenues & Expenses</p> <p>Lead Auditor</p>
Summit Natural Gas of Missouri, Inc.	GA-2013-0404	<p style="text-align: center;">April 2013</p> <p>Memorandum-- Summit Natural Gas of Missouri, Inc. Certificate of Convenience & Necessarily Concerning review of Feasibility Study and Development of Revenues; Expenses & Revenues.</p> <p>Lead Auditor</p>
Raytown Water Company	WR-2012-0405	<p style="text-align: center;">July 2012</p> <p>Memorandum-- Cost of Service; Payroll & Benefits; Incentive Compensation; Plant-In-Service, Depreciation Reserve & Other Rate Base Items: Affiliated Transactions; Tank Painting; City Permit Fees; EIARA Insurance Costs; PSC Assessment & Rate Case Expense; Outside Services; Transportation & Communication Expense; Dues & Donations, Lobbying Expense; Advertising Expense; Board of Directors Fees; DNR Fees; Education Expense; Software & IT Expenses; Office Expense & Lease Equipment; Franchise Taxes; Current & Deferred Income Taxes .</p> <p>Lead Auditor</p>

COMPANY	CASE NO.	TESTIMONY/ISSUES
Summit Natural Gas of Missouri, Inc.	GA-2010-0012	<p style="text-align: center;">June 2012</p> <p>Memorandum-- Summit Natural Gas of Missouri, Inc. Certificate of Convenience & Necessarily Concerning review of Feasibility Study and Development of Rate Base; Expenses & Revenues.</p> <p>Lead Auditor</p>
Rogue Creek Water & Sewer	<p>WR-2012-0000</p> <p>SR-2012-0000</p>	<p style="text-align: center;">April 2012</p> <p>Earnings Investigation - To Determine if the Utility was Earning Sufficient Revenues to Recover its Cost of Providing Service To Ratepayers.</p>
Missouri American Water Company & Saddlebrooke Acquisition	WA-2012-0066	<p style="text-align: center;">April 2012</p> <p>Memorandum-- Saddlebrooke Acquisition & Certificate of Convenience & Necessarily Concerning review of Feasibility Study and Development of Rate Base; Expenses & Revenues.</p> <p>Lead Auditor</p>
Missouri American Water Company & Roark Water Acquisition Case	<p>WO-2011-0213</p> <p>SO-2011-0214</p>	<p style="text-align: center;">March 2011</p> <p>Memorandum-- Determination of net rate base to include Plant in Service; Depreciation Reserve; Other Rate Base Items including CIAC and Revenues & Expenses</p> <p>Lead Auditor</p>
Tri-State Water Company	WR-2011-0037	<p style="text-align: center;">March 2011</p> <p>Memorandum-- Cost of Service; Rate Case Expense; Medical; Insurance; Communications Expense; Transportation Expense; Office Expense; Miscellaneous maintenance expenses; Rate Base and Current & Deferred Income Taxes</p> <p>Lead Auditor</p>
Raytown Water Company	WR-2010-0304	<p style="text-align: center;">February 2011</p> <p>Memorandum-- Cost of Service; Affiliated Transactions; Tank Painting; Hydrant Maintenance; City Permit Fees; EIARA Insurance Costs; I&D & Workers Comp; CIAC; Board of Directors Fees; DNR Fees; Education Expense; Software & IT Expenses; Office Expense & Lease Equipment; Franchise Taxes; Current & Deferred Income Taxes .</p> <p>Lead Auditor</p>

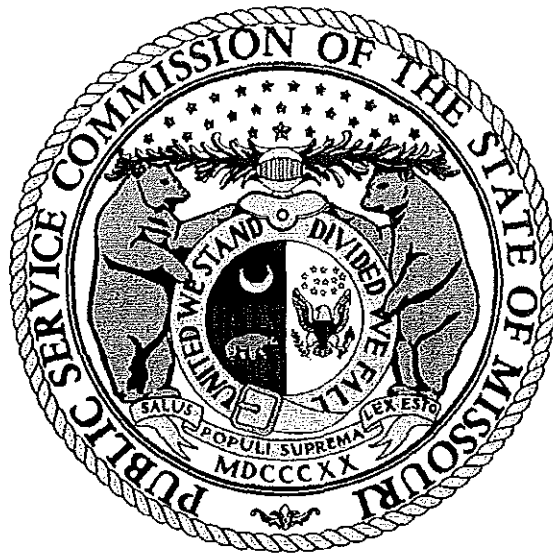
COMPANY	CASE NO.	TESTIMONY/ISSUES
Noel Water Company	WR-2009-0395	<p align="center">August 2009</p> <p>Memorandum-- Cost of Service; All Revenues & Expenses related to Noel Water Company; Plant in Service; Depreciation Reserve & other Rate Base Items.</p> <p>Lead Auditor</p>
Tri-State Water Company	WR-2009-0058	<p align="center">May 2008</p> <p>Memorandum-- Cost of Service; Payroll; rent expense; miscellaneous maintenance expenses; Rate Base and Current & Deferred Income Taxes.</p> <p>Lead Auditor</p>
Big Island Water & Sewer	<p>WA-2006-0480</p> <p>SA-2006-0482</p>	<p align="center">January 2007</p> <p>Direct - Certificate of Necessitate Application Case: Cost of Service; All Revenues & Expenses related to Big Island Water & Sewer; Plant in Service; Depreciation Reserve & other Rate Base Items.</p> <p>Lead Auditor</p>
Aqua Missouri Water and Sewer	<p>QS-2005-0008</p> <p>QW-2005-009</p> <p>QS-2005-0010</p> <p>QW-2005-0011</p>	<p align="center">October 2006</p> <p>Memorandum-- Cost of Service - All Revenues & Expenses related to Aqua MO Water & Sewer; Plant in Service; Depreciation Reserve & other Rate Base Items.</p> <p>Lead Auditor</p>
Lake Region Water and Sewer Certificate Case	WA-2005-0463	<p align="center">October 2006</p> <p>Memorandum-- Certificate of Necessitate Application Case</p> <p>Lead Auditor</p>
Tri-State Utility Inc.	WA-2006-0241	<p align="center">May 2006</p> <p>Memorandum-- Certificate of Necessitate Application Case</p> <p>Lead Auditor</p>

<u>COMPANY</u>	<u>CASE NO.</u>	<u>TESTIMONY/ISSUES</u>
Osage Water Company Environmental Utilities Missouri American Water	WO-2005-0086	February 2005 Memorandum-- Rate Base; Cost of Service; Income Statement Items; Pre-Post Sale of OWC, Sale of EU Assets to MAWC
North Suburban Water & Sewer	WF-2005-0164	December 2004 Memorandum-- Sale of All Stocks of Lake Region Water & Sewer to North Suburban Water & Sewer, Value of Rate Base Assets, Acquisition Premium Lead Auditor
Mill Creek Sewer	SR-2005-0116	December 2004 Memorandum-- Cost of Service; All Revenues & Expenses related to Mill Creek Sewer; Plant in Service; Depreciation Reserve & other Rate Base Items. Lead Auditor
Roark Water and Sewer	WR-2005-0153 SR-2005-0154	September 2004 Memorandum-- Cost of Service; All Revenues & Expenses related to Roark Water & Sewer; Plant in Service; Depreciation Reserve & other Rate Base Items. Lead Auditor
Osage Water Company	WT-2003-0583 SR-2003-0584	December 2003 Memorandum-- Cost of Service; All Revenues & Expenses related to Osage Water; Plant in Service; Depreciation Reserve & other Rate Base Items
SUMMARY OF NON-CASE RELATED AUDITS		
<p>March 2013 – Hickory Hills Water and Sewer’s investigation concerning value of assets and cost of service in order to determine the possibility of annexing this small utility with the city of California Missouri.</p>		
<p>March 2012 – Assisted and trained several small utility companies (RDE Utilities, Rogue Creek Utilities and Smithview H2O Water) in the appropriate manner in which the Commission’s Annual Report should be completed and filed.</p>		

COMPANY	CASE NO.	TESTIMONY/ISSUES
		<p>January 2006 – Environmental Utilities and Osage Water Company Audit concerning provision of service to Eagle Woods Subdivision and disconnect notice</p>
		<p>November 2004 - Internal Audit of Public Service Commission (PSC) Fixed Assets, physical inventory control process and location of assets</p>

MISSOURI PUBLIC SERVICE COMMISSION

AUDITING DEPARTMENT



**REVIEW AND AUDIT OF
LIBERTY UTILITIES (MISSOURI WATER), LCC (WATER)
D/B/A LIBERTY UTILITIES**

CASE NO. WR-2018-0170

JUNE 22, 2018

Auditing Department
Review and Audit of
Liberty Utilities Water And Sewer

On December 15, 2017, Liberty Utilities filed an informal rate increase request with the Missouri Public Service Commission ("Commission"). The Company's request seeks an annual rate increase of \$995,844 in its water revenues and an annual increase of \$196,617 in its sewer revenues. The Commission's last approved rate increase for Liberty Utilities' KMB properties became effective on February 1, 2011, as a result of Case Nos. WR-2010-0345 and SR-2010-0346. The Commission's last approved rate increase for Liberty Utilities' Silverleaf properties became effective on April 2, 2007, as a result of Case Nos. WR-2006-0425 and SR-2006-0426. The Commission's last approved rate increase for Liberty Utilities' Noel properties became effective on November 12, 2009, as a result of Case No. WR-2009-0395.

Liberty Utilities currently serves 1,954 water customers and 416 sewer customers, located within its 14 certificated service areas with 11 different sets of tariff rates. However, because Liberty Utilities provided significantly different responses concerning the number of customers it serves in response to DR0007 and DR0052, these customer numbers are subject to revision. Liberty Utilities consists of eleven water systems and three sewer systems. Liberty Utilities' KMB water systems include seven of these systems: Cedar Hills, Crestview, High Ridge Manor, Hillshine Community, Lakeview Hills, Town of Scotsdale, and Warren Woods. Each of these systems has its own tariff rates for its water service. Liberty Utilities' KMB sewer system includes Cape Rock Village which has its own sewer tariff rates. Liberty Utilities' Silverleaf water systems include Holiday Hills, Ozark Mountain, and Timber Creek. All three of Silverleaf water systems have the same water tariff rate. Liberty Utilities' Silverleaf sewer systems include Ozark Mountain and Timber Creek. Both of these sewer systems are under one sewer tariff rate. And finally, Noel Water has its own tariff rates for water services it provides to its customers. As a result, there are nine water tariffs and two sewer tariffs. For the purposes of this rate case, Staff conducted its audit based upon the tariffed operations. Most of the Liberty Utilities water and sewer tariffs specify a monthly minimum base rate and a usage charge per 1,000 gallons of usage for each additional 1,000 gallons of usage thereafter. In addition, some of Liberty Utilities' customers' water and sewer rates are unmetered and are charged a flat monthly rate.

Based upon Staff's examination of Liberty Utilities' books and records, along with discussions with the Company's employees, Staff's recommended revenue requirement calculation for Liberty Utilities, using a return on equity (ROE) of 10.00%, (discussed in more detail below), is \$810,886 water and \$179,323 for sewer. Attached with this Memorandum is Audit Staff's Summary Accounting Schedules PRH-d2. In addition, all relevant workpapers related to Audit Staff's review and audit of Liberty Utilities' financial operations were provided to all parties to this case.

TEST YEAR AND UPDATE PERIOD

Staff used a test year period in this case consisting of the 12-months ending June 30, 2017, with an update period for known and measurable changes through November 30, 2017, in order to develop its revenue requirement recommendation in this case. Staff's annualized revenues and expenses amounts are based on data provided by Liberty Utilities during the course of Staff's audit and updated this data through November 30, 2017.

From reviewing Liberty Utilities workpapers, it appears that the Company used the same time period for the test year as Staff, however, instead of making adjustments for known and measurable changes up through November 30, 2017, the Company updated their cost of service by recording all of their revenues and expenses for their case as of the 12-months ended November 30, 2017 unadjusted. It appears as if the Company just moved the test year from 12-months ended June 30, 2017 to 12-months ended November 30, 2017. Staff did not accept this approach and instead used its standard practice of adjusting test year amounts in order to develop its recommended revenue requirements in this case.

Staff Witness: Paul R. Harrison

RATE OF RETURN AND CAPITAL STRUCTURE

The Commission's Financial Analysis Unit provided the Audit Staff with a rate of return recommendation. The recommendation is a capital structure that consists of 42.83% common equity and 57.17% long term-debt, and a recommended allowed return on equity (ROE) of 10% with a cost of debt of 4.65%. This results in an after-tax rate of return (ROR) of 6.94%.

Staff Witness: David Murray

INVESTIGATION RESULTS

The Audit Staff has concluded its audit investigation of the Liberty Utilities' books and records for purposes of determining the need for a rate increase. Based upon Staff's audit of the Company's books and records for the test year and update period, Staff is recommending a revenue increase for all of these operating systems.

To establish a cost of service, Staff developed eleven individual Accounting Schedules corresponding to each water or sewer tariff, and then combined the schedules into a Total Water Schedule, a Total Sewer Schedule, and Total Company Accounting Schedule. Rate base and expense levels for Liberty Utilities' systems are presented in Staff's workpapers and accounting schedule attached to this Memorandum.

Liberty Utilities is not maintaining its books and records in accordance with the Commission's adopted version of the National Association Regulatory Utility Commission, (NARUC) Uniform System of Accounts (USOA). The Missouri Public Service Commission (MoPSC) adopted the 1973 version of the water NARUC USOA and the 1976 version of sewer NARUC USOA; however Liberty Utilities has set its books and records up according to the 1996 version of the NARUC USOA. The MoPSC has never adopted the 1996 version. Using the incorrect version of the NARUC USOA causes consistency and accuracy of accounting issues, because the underlying accounting data required under the 1996 version of the USOA is somewhat different from the accounting data required under the 1973 and 1976 USOA version. In the recommendation section below, Staff recommends that Liberty Utilities maintain its books and records in accordance with the Commission's adopted version of the National Association Regulatory Utility Commission, (NARUC) Uniform System of Accounts (USOA).

Staff Witness: Paul R. Harrison

Liberty Utilities did not keep the seven KMB water operating systems books and records separate for each system. Liberty Utilities acquired the KMB properties during calendar year 2010 and consolidated all of the rate base and expenses for the KMB water properties into one entity. It appears that the Company kept the rates that they charged the customers separate per its tariff. In the KMB Water utilities' last rate case, Staff developed rates for seven different properties based on the amount of rate base, current revenues and expenses produced by each operating system. Therefore, the Company should have kept the books and records separate for each one of these systems in order to determine the cost of service revenue requirement for this

case. To develop the revenue requirement for each of these systems, it was necessary for Staff to develop an allocation process to separate these seven systems' rate base and expenses back to a stand-alone basis. Staff separated these systems by developing an allocation factor based on a three factor method, total rate base, total cost of service and customer numbers that all parties agreed upon in the last KMB rate case, WR-2010-0345. Once these allocation factors were developed they were applied to the total KMB water rate base and expense for each account to separate these system's rate base and expense back to a stand-alone basis.

Staff Witness: Paul R. Harrison

Upstream Service Affiliates Adjustment

Missouri water and sewer divisions owned by Liberty Utilities received corporate ownership and administrative services during the test year from the following upstream service affiliates:

- Algonquin Power & Utilities ("APUC")
- Liberty Utilities (Canada) Corp ("LUC")
- Liberty Algonquin Business Services ("LABS")
- Liberty Utilities Service Corp ("LUSC")
- LABS – operating out of Joplin/Empire ("ELABS")

Liberty Utilities – Midstates Gas operations filed a Missouri retail general base rate case in September 2017. Staff attempted to analyze expenses from the upstream service affiliates noted above that also serve Missouri Midstates Gas operations. Staff presented the results of its Midstates Gas affiliates' audit and recommendations in its Staff Report filed in the Midstates Gas case on March 2, 2018 (Case No. GR-2018-0013). Staff is utilizing relationships, or ratios, from its Midstates Gas audit to develop its Missouri water and sewer divisions affiliates adjustments. More specifically, for each of the noted upstream service affiliates Staff undertook the following calculations to derive each Missouri water and sewer division's affiliate adjustment:

MidStates Gas Service Affiliate's Test Year Actual Expense
Staff's MidStates Gas Test Year Upstream Service Affiliate Adjustment
Calculated Percentage: $\text{Affiliate Gas Adjustment} / \text{Test Year Actual Expense}$
Missouri Water/Sewer Division – Test Year Actual Expense
Missouri Water/Sewer Division Adjustment (Gas % X Water/Sewer TY Actual)

The test year for both the Midstates Gas and Liberty Utilities water and sewer divisions used the twelve months ending June 30, 2017. The rationale and support for the affiliates'

adjustment being posted in this water and sewer divisions' rate case can be observed within the Staff Report filed within Case No. GR-2018-0013.

Staff Consultant Witness: Jim Dittmer

RATE BASE

Staff included in its individual cost of service calculations all capital improvements completed by the Company and in service as of November 30, 2017, for ten of Liberty Utilities operating systems. The other system, Noel Water, had capital improvements made to its well that were in service by the construction cutoff date for this case, February 28, 2018. Therefore, these costs are being included in Noel Water's rate base as part of this update. As a result of updating plant in service for Noel Water up to February 28, 2018, Staff is updating all of Noel Water's other rate base items to February 28, 2018. Based upon Staff's review of MoPSC Annual Reports, the Company's general ledger, the Company's workpapers, and a random sampling of invoices and payments made by the Company since its last rate cases, the Liberty Utilities water systems net rate base is approximately \$3,347,107. The Liberty Utilities sewer systems net rate base is approximately \$911,882. These amounts are subject to change if Staff receives additional information in this case.

Staff Witnesses: Stephen Moilanen/Debbie Duncan

Customer Deposits

Staff's inclusion for customer deposits in rate base reflects a rolling 13-month average ending June 30, 2017. Customer deposits are funds received from the utility company's customers as security against potential loss arising from failure to pay for utility service. Until refunded, customer deposits represent a source of funds available to the company, and are included as an offset to the rate base investment.

Interest is accrued on these customer deposits based on the rate specified in the tariffs. The tariff stated interest rate for this Company is 6% compounded annually payable on all deposits. When a customer becomes eligible for a return of his or her deposit, the amount

refunded includes the accumulated interest. Staff has included an annualized level of interest expense for customer deposits in its cost of service.

Staff Witness: Debbie Duncan

Accumulated Deferred Income Taxes (ADIT)

Liberty Utilities deferred tax reserve represents, in effect, a prepayment of income taxes by customers prior to payment by Liberty Utilities. For example, Liberty Utilities is allowed to deduct depreciation expense on an accelerated basis for income tax purposes; depreciation expense used for income taxes paid by Liberty Utilities is considerably higher than depreciation expense used for ratemaking purposes. This results in what is referred to as a “book-tax timing difference,” and creates a deferral of income taxes to the future. The net credit balance in the deferred tax reserve represents a source of cost-free funds to Liberty Utilities. Therefore, Liberty Utilities’ rate base is reduced by the deferred tax reserve balance to avoid having customers pay a return on funds that are provided cost-free to the Company. Generally, deferred income taxes associated with all book-tax timing differences that are created through the ratemaking process should be reflected in rate base. Staff has taken this approach in calculating the deferred income tax rate base offset amount in this case.

Staff Witness: Paul R. Harrison

REVENUES

Metered and Unmetered Sales to Residential, Commercial, and Industrial Customers

The Company provided Staff with the amount of gallons of water sold for each system by meter size and by month for 2015, 2016, and 2017. The Company also provided Staff with the number of customers for each system by meter size and by month for 2015, 2016, and 2017. Staff annualized and normalized the amount of gallons of water sold and customer numbers for each individual system.

According to the utilities’ water tariffs, there is a monthly customer charge and a commodity rate applied to the customer’s usage. For the Noel Water service territory there is a minimum customer charge, which includes the first 1,000 gallons of usage. There is a commodity charge for usage over 1,000 gallons. For Scotsdale (KMB) there is a minimum customer charge which includes the first 10,000 gallons of usage. There is a commodity charge for usage over 10,000 gallons. Based on this information Staff was able to use three years’

worth of available data provided by the Company to calculate an annualized level of revenue. Staff's annualized level of revenue for each water system is: \$236,468 for Holiday Hills, \$72,943 for Ozark Mountain, \$43,163 for Timber Creek, and \$367,223 for Noel. KMB water is broken out between seven different systems. Staff's annualized level of revenue is \$35,271 for Cedar Hill, \$17,550 for Crestview Acres, \$17,105 for High Ridge Manor, \$9,733 for Hillshine Manor, \$42,234 for Lakewood Hills, \$19,269 for Town of Scotsdale and \$10,360 for Warren Woods.

Timber Creek, Ozark Mountain, and KMB- Cape Rock Village are the only systems that have sewer revenues as well. Staff's sewer revenue for Timber Creek and Ozark Mountain was determined by using the monthly customer charge for each meter size, and also the separate commodity rate for the monthly usage. The annualized sewer revenue amount included in Staff's revenue requirement is: \$59,948 for Timber Creek and \$142,192 for Ozark Mountain. Staff's sewer revenue for KMB- Cape Rock Village was determined by using the fixed monthly customer charge for Single family and Multi-family dwellings. The annualized sewer revenue amount included in Staff's revenue requirement is \$56,237 for KMB- Cape Rock Village.

Staff Witness: Brooke Richter

Other Water and Wastewater Revenues

Another source of revenue for Liberty Utilities is miscellaneous revenues, consisting of accounts: 471 Re-connect Fees, 471.1 Establishment Fees, 471.4 Service Charges, 471.5 Service Calls (the Company has stated in DR 27.1 that this account is made up of late payment fees), 474 Other Water Revenues, and 536.4 Other Wastewater Revenues. Staff reviewed the Company's general ledger and corresponding workpapers regarding these miscellaneous revenue accounts. Staff has included the Company's updated miscellaneous revenues amounts for the 12 months ending November 30, 2017.

Staff Witness: Brooke Richter

OPERATING EXPENSES

Staff developed three income statement spreadsheets; one for Silverleaf's three water systems and Noel Water, one for KMBs seven water systems, and one for KMB and Silverleaf's sewer system. The income statement spreadsheets include the most recent 35-months (2015, 2016, and 11-months ended November 30, 2017) of data from Liberty Utilities' general ledger. Staff used this spreadsheet to normalize and annualize a significant number of

Liberty Utilities' expense items that are included in this case. This spreadsheet is provided with Staff's workpapers. In addition, Staff developed workpapers to normalize and annualize various other expense items in its cost of service. These other expenses are discussed below and the workpapers were provided to the other parties of this case.

Staff Witness: Paul R. Harrison/Debbie Duncan

Payroll, Payroll Tax, and 401(K)

Currently, Liberty Utilities has three full time employees that work out of its Noel, Missouri office. These employees are a water/wastewater operator, a field service representative, and a customer service representative. These three employees devote practically all of their time to Noel Water. In addition to these three employees, Liberty Midstates - MO's payroll expense includes the wages and salaries paid to the employees who work in each of the eleven rate districts, and corporate allocated wages and salaries that represent work performed that directly or indirectly benefits Liberty Midstates - MO and its ratepayers in each rate district. Staff has annualized payroll expense for the test year ending June 30, 2017, and has included all known and measurable changes through the November 30, 2017, update period. Staff calculated payroll taxes based on Staff's annualized base salary and the current tax rates. In addition, Liberty Utilities has a 401k plan for its employees. Liberty Utilities is matching up to 4% of each employee's pay for the Company 401k plan. Therefore, Staff has calculated the Company's (4%) match on Staff's annualized payroll and included it into its cost of service for each of Liberty Utilities operating systems.

Staff Witness: Paul R. Harrison

Outside Services

Staff has reviewed the contracts for outside services provided in response to DR 29 and subsequent DRs. Staff has also reviewed the general ledger, accounts 636.0 and 636.1 for water, and 736.1 and 736.2 for sewer. These contract personnel perform water/wastewater operator functions, meter reading, and maintenance and operation duties for all of Liberty Utilities systems except for Noel Water. The Company stated to Staff that main routine operation duties are provided by Noel Water employees; however, they would still use outside operators for any type of non-routine maintenance such as main breaks. Therefore, Staff has included an

annualized and normalized level of all outside services in each of Liberty Utilities operating systems including Noel Water.

Staff Witness: Brooke Richter

Insurance Expense

Insurance expense is the cost of protection obtained from third parties by utilities against the risk of financial loss associated with unanticipated events or occurrences. Utilities, like non-regulated entities, routinely incur insurance expense in order to minimize their liability (and, potentially, that of their customers) associated with unanticipated losses. Each of Liberty Utilities systems has incurred an insurance expense and Staff has included a normalized level of this expense in its cost of service.

Staff Witness: Debbie Duncan

PSC Assessment

The operations of the Missouri Public Service Commission are funded by assessments levied upon regulated utility companies. The funding required from each utility is evaluated each year and mailed to the utilities in July. Staff annualized the PSC assessment expense to reflect the most current assessment issued on July 1, 2017. Staff's annualized PSC assessment expense is \$7,760.

Staff Witness: Debbie Duncan

Rate Case Expense

Utility companies incur various expenses in the preparation and presentation of a rate case before the Commission. Included in these costs are expenses for outside counsel, expert witnesses, and miscellaneous expenses for items such as travel expenses and copying costs. Staff submitted Data Request No. 0016 requesting:

- 1) a breakdown, by account charged, of the actual costs of the Company's last rate case; 2) detailed rate case expense invoices for current case (i.e., detailed legal fees from outside consultants, detailed invoices from expert witness fees showing number of hours worked and the hourly rates, postage/federal express and costs incurred by the company staff to attend case related activities in Jefferson City); 3) a Company schedule showing expenses booked to account 928 related to the current rate case; and 4) any changes, since the last rate case to policies and procedures employed by the Company to establish and control the parameters for a reasonable level of rate case expense and an explanation of these changes.

Please continue to update rate case expense throughout this case as data becomes available.

To date, Staff has received a spreadsheet with six expenditures for legal fees totaling \$1,409. However, Staff has not received invoices or other detailed source documents in order to determine rate case expense for this case. During a meeting with the Company on March 28, 2018, Staff requested invoices and additional documentation for rate case expense for this case. Once Staff receives that documentation, we will update rate case expense for this case.

Staff Witness: Paul R. Harrison

Meter Reading Expense

The meter reading is performed by outside contractors for all of Liberty Utilities operating systems on a monthly basis except for Noel Water. Noel Water's meter reading is performed by in-house personnel and is included in Liberty Utilities payroll expense. Staff has included an annualized and normalized amount for meter reading expense in Noel Water payroll and for the outside contractors that perform these services.

Staff Witness: Brooke Richter

Missouri Department of Natural Resources Fees

Staff has reviewed invoices and Missouri Department of Natural Resources annual permits that were received in response to Staff DR No. 36. Staff has also reviewed account 775.8 licenses and fees in the general ledger. Staff included the annualized amount of \$3,000 for Timber Creek (sewer), Ozark Mountain (sewer), and KMB- Cape Rock Village.

Staff Witness: Brooke Richter

Materials and Supplies

Normally, Staff and the utility include a 13-month average of materials and supplies in rate base during a rate case. However, Liberty Utilities expenses its materials and supplies for gas, water and sewer because most, if not all, of their maintenance and operations activities are done by contractors. Based on discussions with the Company and a review of its general ledger, Staff has determined it to be appropriate to include a normalized level of material and supplies in expense and has excluded it from rate base.

Staff Witness: Paul R. Harrison

Health Care Costs

Liberty Utilities offers its employee a benefits package including medical, dental, vision, life insurance, long-term disability and short-term disability. Staff has annualized each of these employee benefits' costs, based upon all known and measurable changes that have occurred through the update period, ending November 30, 2017. These annualized benefits are included in Staff's cost of service for this case.

Staff Witness: Paul R. Harrison

Property Taxes

Staff has reviewed all receipts paid for 2015 and 2016 property tax assessments and real estate taxes provided in the response to Staff DR No. 30. Staff is including the last known and measurable payments, the 2016 receipts, for property tax expense.

Staff Witness: Brooke Richter

Franchise Taxes

Under Senate Bill 19, the corporate franchise tax rate was reduced each year until the 2016 tax year, which begins January 1, 2016, at which time the Missouri Corporate franchise tax rate was reduced to zero and eliminated. The Company provided Staff with the updated Staff DR Response No. 30 stating, "Franchise tax would have been paid with the combined Missouri Corporate Income Tax Return MO-1120. Missouri Water LLC Franchise Tax liability has been 0 since 2016. No receipts were issued." Since Senate Bill 19 reduced Missouri's franchise tax to zero and the Company stated there has been no franchise taxes since 2016, Staff is not including any amount allocated towards franchise taxes in the cost of service for recovery.

Staff Witness: Brooke Richter

Transportation Expense

Staff has reviewed the Company's workpapers and general ledger account 650.0 (transportation expense). Staff has included the Company's transportation expense updated through November 30, 2017.

Staff Witness: Brooke Richter

Bad Debt Expense

Staff has reviewed the Company's workpapers and general ledger account 670.0 (bad debt expense). Staff has also reviewed DR responses 72, 77, and 79. Since the Company has not written off any of its bad debt, and has no intentions of collecting any of its past due bad debt, Staff is not including any amount accrued towards bad debt expense in the cost of service for recovery. Therefore, the test year amount the Company included in their workpapers has been removed from Staff's cost of service. In the future, Staff would review and reconsider including an amount for bad debt expense in the cost of service if the Company hires a collection agency to attempt to collect some of its bad debt, and begins to write off its bad debt.

Staff Witness: Brooke Richter

Depreciation Expense

The Audit Staff incorporated in its cost of service calculation depreciation rates that were supplied by the Commission's Engineering Analysis Unit. Based upon these depreciation rates, the Audit Staff included a \$315,364 annualized level of depreciation expense on the water systems and an \$111,812 annualized level for the sewer systems.

Staff Witness: Stephen Moilanen

Cost of Removal – Net Salvage

Staff submitted DR No. 0033 requesting historical salvage and cost of removal amounts for the last three years, if available, ending December 31, 2017. The Company responded "Liberty Utilities (Missouri Water) LLC does not record cost of removal. Cost of removal expenses is absorbed in the Acquisition Cost of Asset."

Normally, cost of removal and gross salvage is tracked and recorded separately on a company's books and records because a utility's depreciation rate for each plant account incorporates an estimated net salvage value (which is the cost of removal less gross salvage value) into the depreciation rate.

It is inappropriate to include cost of removal and/or gross salvage into the original cost of an asset that has been added to plant because cost of removal and gross salvage are administered at the end of an asset's useful life. Instead, average net salvage is estimated for each plant account and is incorporated into the depreciation rate in such a way that net salvage costs for an

asset are administered evenly over the useful life of the asset. At the end of an asset's useful life, actual net salvage values (whether positive or negative) are then applied to depreciation reserve.

In addition, Liberty Utilities' current method of including net salvage in the acquisition cost of an asset means that net salvage is included as a part of rate base. This is not appropriate because the original cost of an asset is included in the revenue requirement calculation during a rate case, and net salvage costs do not occur until the end of an asset's useful life.

To compensate for the inclusion of net salvage in the acquisition costs of new property, Staff has made adjustments to plant based on the ordered net salvage percentages currently in place for the water and sewer systems. Since net salvage is incorporated into the ordered depreciation rate, Liberty would have already recovered the estimated net salvage costs through depreciation expense. Adjustments were also applied to depreciation reserve to account for net salvage debits/credits, based on the ordered net salvage percentage.

Staff Witness: Stephen Moilanen

Current and Deferred Income Tax

As a result of the Tax Cuts and Jobs Act (TCJA), the federal corporate income tax has been reduced from 35 percent to 21 percent, effective January 1, 2018. Staff has calculated the federal income tax expense amount for Liberty Utilities water and sewer using a 21 percent tax rate in its calculations for the cost of service for Liberty Utilities Water and Sewer revenue requirements for this case. Other financial impacts of the TCJA, including an amortization of the excess deferred income taxes, may be incorporated into the water and sewer revenue requirements in this case at a later point if such impacts can be reasonably quantified at that time.

Current income tax for this case has been calculated by Staff consistent with the methodology used in all rate cases in Missouri. Certain adjustments are made to net income to compute the current income tax expense. These adjustments begin by taking adjusted net income and either adding to or subtracting from net income various timing differences to obtain net taxable income for ratemaking purposes. The adjustments are the result of various book versus tax timing differences and their implementation under separate tax methods: flow-through versus normalization. The resulting net taxable income for ratemaking is then multiplied by the appropriate federal and state tax rates to obtain the current provision for income taxes. A federal tax rate of 21 percent and a state income tax rate of 6.25 percent were used in calculating Liberty

Utilities current income tax liability. The resulting composite tax rate is 25.4475%. The difference between the calculated current income tax provision and the per book income tax provision is the current income tax provision adjustment.

A tax timing difference in determining current taxable income occurs when the timing used in reflecting a cost (or revenue) for financial reporting purposes is different than the timing required by the Internal Revenue Service (IRS). Current income tax reflects timing differences consistent with the timing required by the IRS. The tax timing differences used in calculating taxable income for computing current income tax are as follows:

- Add Back to Operating Income Before Taxes:
 - Book Depreciation Expense
 - Contribution in Aid of Construction
- Subtractions from Operating Income:
 - Interest Expense -- Weighted Cost of Debt X Rate Base
 - Tax Straight-Line Depreciation
 - Tax Depreciation-Excess

Deferred Income Tax Expense

When a tax timing difference is reflected for ratemaking purposes consistent with the timing used in determining taxable income for the calculation of current income tax payable to the IRS, the timing difference is given “flow-through” treatment.

When a current year timing difference is deferred and recognized for ratemaking purposes consistent with the timing used in calculating pre-tax operating income in the financial statements, then that timing difference is given “normalization” treatment for ratemaking purposes. Deferred income tax expense for a regulated utility reflects the tax impact of “normalizing” tax timing differences for ratemaking purposes. IRS rules for regulated utilities require normalization treatment for the timing difference related to accelerated depreciation.

For most utilities, it is necessary to break out a utility’s tax depreciation into two separate components: tax straight-line depreciation and excess tax depreciation. Tax straight-line depreciation is different from book straight-line depreciation due to the different tax basis of property allowed under the tax code. Excess tax depreciation differs from straight-line book depreciation due to the higher depreciation rates allowed in the early years of an asset’s life under the current tax code. Most tax basis differences were eliminated for assets placed into service after 1986 due to the Tax Reform Act enacted that year.

Staff's standard deferred income tax adjustment consists of three components:

1. IRS Schedule M timing differences: Contributions in aid of construction and advances for construction. These amounts are normalized consistent with Staff's calculation in normal rate case filing.

2. The tax timing difference between tax straight-line depreciation expense and tax depreciation expense: This treatment is consistent with the normalization calculation in normal rate case filing.

3. Excess deferred income taxes resulting from the 1986 Tax Reform Act, which created excess deferred tax amounts associated with depreciation timing differences: As such, an amortization has been created to amortize excess deferred taxes created from the change in tax rates back to customers.

Normally a combination of the above three components make up the amounts recorded as deferred income tax expense.

Staff Witness: Paul R. Harrison

Audit Staff Recommendations for Liberty Utilities

1) Liberty Utilities shall maintain its books and records in accordance with the Commission's adopted version of the National Association Regulatory Utility Commission (NARUC) Uniform System of Accounts (USOA). The Missouri Public Service Commission (MoPSC) adopted the 1973 version of the water NARUC USOA and the 1976 version of sewer NARUC USOA.

2) Liberty Utilities shall keep its books and records separate for each of its tariffed water and sewer operating systems.

3) Liberty Utilities shall reflect its cost of removal and salvage accruals on its financial books and records in a manner consistent with the approved USOAs for these utilities.

4) Liberty Utilities shall attempt to collect their delinquent bad debt and write off the uncollectible amount, before it seeks recovery of bad debt expense in rates.

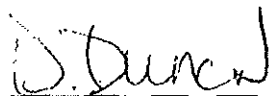
**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

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 DEBORAH DUNCAN

State of Missouri)
) ss
County of Cole)

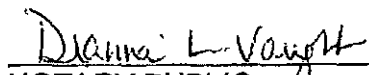
COMES NOW Deborah Duncan and on her oath declares that she is of sound mind and lawful age; that she contributed to the attached *Direct Testimony*; and that the same is true and correct according to her best knowledge and belief. Further the Affiant sayeth not.



Deborah Duncan

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 June, 2018.



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

**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 DAVID MURRAY, CFA

State of Missouri)
) ss
County of Cole)

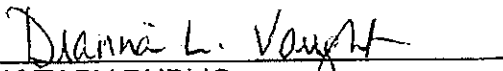
COMES NOW David Murray, CFA, and on his oath declares that he is of sound mind and lawful age; that he contributed to the attached *Direct Testimony*; and that the same is true and correct according to his best knowledge and belief. Further the Affiant sayeth not.



David Murray, CFA

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 21st day of June, 2018.



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


**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 BROOKE RICHTER

State of Missouri)
) ss
County of Cole)

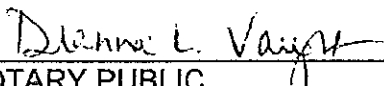
COMES NOW Brooke Richter and on her oath declares that she is of sound mind and lawful age; that she contributed to the attached *Direct Testimony*; and that the same is true and correct according to her best knowledge and belief. Further the Affiant sayeth not.



Brooke Richter

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 17th day of June, 2018.



NOTARY PUBLIC

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

Account #	Plant Account Description	Noel - Water		HH/TC/OM - Water		Lakewood - Water		Cedar Hill - Water		Scotsdale - Water	
		Plant	Depr. Res.	Plant	Depr. Res.	Plant	Depr. Res.	Plant	Depr. Res.	Plant	Depr. Res.
INTANGIBLE PLANT											
301.000	Organization	\$0	\$0	\$0	\$0	\$9,955	\$9,985	\$7,960	\$7,984	\$4,883	\$4,698
302.000	Franchises and Consents	\$0	\$0	\$0	\$0	\$1,155	\$1,155	\$924	\$924	\$567	\$567
303.000	Miscellaneous Intangible Plant	\$0	\$0	\$0	\$0	\$3,363	\$2,251	\$2,688	\$1,800	\$1,649	\$1,104
	TOTAL INTANGIBLE PLANT	\$0	\$0	\$0	\$0	\$14,473	\$13,391	\$11,573	\$10,708	\$7,099	\$6,569
SOURCE OF SUPPLY PLANT											
310.000	Land and Land Rights - SSP	\$9,800	(\$489)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
311.000	Structures and Improvements - SSP	\$0	\$0	\$33,905	\$6,782	\$0	\$0	\$0	\$0	\$0	\$0
314.000	Wells and Springs	\$142,663	\$61,593	\$316,563	\$139,127	\$31,302	\$980	\$13,210	\$213	\$15,353	\$481
316.000	Supply Mains	\$0	\$0	\$6,028	\$2,120	\$0	\$0	\$0	\$0	\$0	\$0
317.000	Other Water Source Plant	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	TOTAL SOURCE OF SUPPLY PLANT	\$152,463	\$61,109	\$356,496	\$148,029	\$31,302	\$980	\$13,210	\$213	\$15,353	\$481
PUMPING PLANT											
320.000	Land and Land Rights - PP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
321.000	Structures and Improvements - PP	\$365,383	\$12,772	\$523,568	\$131,097	\$67,210	(\$3,598)	\$53,740	(\$2,619)	\$32,966	(\$1,732)
322.000	Boiler Plant Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
323.000	Other Power Production Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
324.000	Steam Pumping Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
325.100	Electric Pumping Equipment	\$508,614	\$100,863	\$576,906	\$701,129	\$35,990	\$38,515	\$28,777	\$30,793	\$17,653	\$18,839
325.200	High Service or Booster Pump Equipment	\$72,775	\$13,241	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
326.000	Diesel Pumping Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
327.000	Hydraulic Pumping Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
328.000	Other Pumping Equipment	\$0	\$0	\$54,607	\$51,074	\$6,423	\$9,257	\$5,136	\$7,399	\$3,151	\$4,541
	TOTAL PUMPING PLANT	\$946,772	\$126,876	\$1,105,081	\$886,300	\$109,623	\$44,186	\$87,653	\$35,543	\$53,770	\$21,693
WATER TREATMENT PLANT											
330.000	Land and Land Rights - WTP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
331.000	Structures and Improvements - WTP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
332.000	Water Treatment Equipment	\$24,927	\$11,928	\$52,930	\$18,678	\$541	\$497	\$433	\$399	\$766	\$244
	TOTAL WATER TREATMENT PLANT	\$24,927	\$11,928	\$52,930	\$18,678	\$541	\$497	\$433	\$399	\$766	\$244
TRANSMISSION & DIST. PLANT											
340.000	Land and Land Rights - TDP	\$856	(\$43)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
341.000	Structures and Improvements - TDP	\$0	\$0	\$20,103	\$4,173	\$0	\$0	\$0	\$0	\$0	\$0
342.000	Distribution Reservoirs and Standpipes	\$342,421	\$185,211	\$638,951	\$324,723	\$9,171	\$7,302	\$7,333	\$5,838	\$4,498	\$3,580
343.000	Transmission and Distribution Mains	\$563,546	\$307,654	\$1,388,053	\$430,258	\$110,581	\$26,572	\$88,417	\$21,246	\$54,238	\$13,034
344.000	Fire Mains	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
345.000	Services	\$3,600	\$0	\$37,984	\$1,785	\$3,969	\$327	\$3,173	\$262	\$1,947	\$162
346.000	Meters	\$56,968	\$37,679	\$164,712	\$18,586	\$36,584	\$45,566	\$29,251	\$36,435	\$17,944	\$22,349
347.000	Meter Installations	\$65,139	\$46,313	\$0	\$0	\$8,905	\$6,108	\$7,120	\$4,882	\$4,368	\$2,994
348.000	Hydrants	\$34,232	\$14,957	\$48,338	\$10,433	\$4,751	\$1,277	\$3,793	\$1,022	\$2,331	\$629
349.000	Other Transmission & Distribution Plant	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	TOTAL TRANSMISSION & DIST. PLANT	\$1,066,762	\$591,771	\$2,296,141	\$789,458	\$173,961	\$87,194	\$139,093	\$69,635	\$85,326	\$42,748
GENERAL PLANT											
374.000	Land and Land Rights - GP	\$0	\$0	\$0	\$0	\$860	\$0	\$688	\$0	\$422	\$0
374.100	Land and Land Rights - Shared Services	\$2,404	\$0	\$2,379	\$0	\$326	\$0	\$261	\$0	\$160	\$0
390.000	Structures and Improvements - GP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
390.100	Structures & Improvements - Shared Svcs	\$99,521	\$22,809	\$98,468	\$21,337	\$13,501	\$2,925	\$10,795	\$2,339	\$6,622	\$1,435
391.000	Office Furniture and Equipment	\$22,879	(\$4,965)	\$31,980	\$20,992	\$1,334	\$295	\$1,067	\$235	\$654	\$145
391.100	Office Computer Equipment	\$1,656	\$169	\$5,707	\$1,972	\$1,014	\$1,287	\$811	\$1,029	\$497	\$632
391.200	Off. Furniture & Equipment - Shared Svcs	\$12,444	\$2,749	\$12,313	\$2,573	\$1,688	\$352	\$1,350	\$282	\$828	\$173
391.210	Office Computer Equipment - Shared Svcs	\$9,450	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
392.000	Transportation Equipment	\$10,499	\$562	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
392.100	Transportation Equipment - Shared Svcs	\$0	\$2,931	\$10,388	\$2,630	\$1,424	\$361	\$1,139	\$288	\$699	\$177
393.000	Stores Equipment	\$14,655	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
394.000	Tools, Shop and Garage Equipment	\$1,556	(\$3,100)	\$10,231	(\$1,719)	\$1,690	\$1,158	\$1,351	\$831	\$829	\$569
394.100	Tools, Shop & Garage Eq. - Shared Svcs	\$0	\$198	\$1,539	\$178	\$211	\$25	\$169	\$19	\$104	\$12
395.000	Laboratory Equipment	\$25,717	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
396.000	Power Operated Equipment	\$5,386	\$23,559	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
397.000	Communication Equipment	\$0	\$1,188	\$4,857	\$291	\$820	\$137	\$656	\$104	\$402	\$65
398.000	Miscellaneous Equipment	\$3,385	\$753	\$2,360	\$724	\$324	\$99	\$259	\$80	\$159	\$48
399.000	Other Tangible Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
399.000	Other Tangible Equipment	\$3,779	\$2,268	\$3,739	\$2,298	\$513	\$315	\$410	\$252	\$251	\$155
399.100	Other Tangible Equipment	\$459	\$380	\$454	\$359	\$62	\$50	\$50	\$39	\$31	\$24
399.300	Other Tangible Equipment	\$5,281	\$4,345	\$5,225	\$4,113	\$716	\$564	\$523	\$451	\$351	\$277
399.400	Other Tangible Equipment	\$43,589	\$37,138	\$43,128	\$34,699	\$5,913	\$4,758	\$4,728	\$3,804	\$2,900	\$2,333
399.500	Other Tangible Plant - Shared Svcs	\$262,459	\$152,700	\$259,682	\$138,764	\$35,605	\$19,026	\$28,469	\$15,212	\$17,464	\$9,332
	TOTAL GENERAL PLANT	\$524,119	\$243,784	\$492,450	\$229,211	\$66,001	\$31,347	\$52,776	\$24,965	\$32,373	\$15,377
	TOTAL PLANT & DEPRECIATION RESERVE	\$2,715,043	\$1,035,468	\$4,303,098	\$2,071,676	\$395,901	\$177,555	\$304,738	\$141,513	\$194,187	\$87,117
	NET PLANT IN SERVICE	\$1,679,575		\$2,231,422		\$218,346		\$163,225		\$107,070	
	CIAC	(\$4,547)		(\$840,134)		(\$456)		(\$723)			
	CIAC Amortization	\$2,995		\$296,023		\$538		\$614			
	Customer Advances	(\$7,296)		\$0							
	Customer Deposits	(\$2,433)		(\$1,773)		(\$817)		(\$653)		(\$401)	
	Deferred Income Taxes	(\$280,274)		(\$386,357)		(\$26,464)		(\$21,156)		(\$12,978)	
	TOTAL RATE BASE	\$1,348,020		\$1,299,181		\$190,747		\$141,307		\$93,691	
	Total Weighted Rate of Return, Including Income Tax	6.79%		6.75%		6.79%		6.79%		6.79%	
	Required Return excluding Income Taxes	\$94,233		\$88,201		\$12,950		\$9,593		\$6,361	

WR-2018-0170
 Liberty Utilities/Rate Base
 Source: EMS Run Ending Balance 11-30-17

Account #	Plant Account Description	Crestview Acres - Water		High Ridge - Water		Hilshine - Water		Warren Woods - Water		Total Water	
		Plant	Depr. Res.	Plant	Depr. Res.	Plant	Depr. Res.	Plant	Depr. Res.	Plant	Depr. Res.
INTANGIBLE PLANT											
301.000	Organization	\$3,824	\$3,836	\$3,162	\$3,171	\$2,496	\$2,504	\$3,128	\$3,138	\$35,408	\$35,516
302.000	Franchises and Consents	\$444	\$444	\$367	\$367	\$290	\$290	\$363	\$363	\$4,110	\$4,110
303.000	Miscellaneous Intangible Plant	\$1,292	\$865	\$1,068	\$715	\$813	\$564	\$1,057	\$707	\$11,961	\$8,006
	TOTAL INTANGIBLE PLANT	\$5,560	\$5,145	\$4,597	\$4,253	\$3,629	\$3,358	\$4,548	\$4,208	\$51,479	\$47,632
SOURCE OF SUPPLY PLANT											
310.000	Land and Land Rights - SSP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9,800	(\$489)
311.000	Structures and Improvements - SSP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$33,905	\$6,782
314.000	Wells and Springs	\$12,024	\$376	\$9,942	\$311	\$7,849	\$245	\$9,837	\$307	\$558,743	\$203,638
316.000	Supply Mains	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,028	\$2,120
317.000	Other Water Source Plant	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	TOTAL SOURCE OF SUPPLY PLANT	\$12,024	\$376	\$9,942	\$311	\$7,849	\$245	\$9,837	\$307	\$608,476	\$212,051
PUMPING PLANT											
320.000	Land and Land Rights - PP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
321.000	Structures and Improvements - PP	\$25,818	(\$1,772)	\$17,059	(\$1,311)	\$16,853	(\$931)	\$21,121	(\$1,393)	\$1,123,718	\$131,095
322.000	Boiler Plant Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
323.000	Other Power Production Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
324.000	Steam Pumping Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
325.100	Electric Pumping Equipment	\$13,825	\$14,796	\$11,431	\$12,232	\$9,025	\$9,658	\$11,310	\$12,104	\$1,163,531	\$938,979
325.200	High Service or Booster Pump Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$72,775	\$13,241
326.000	Diesel Pumping Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
327.000	Hydraulic Pumping Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
328.000	Other Pumping Equipment	\$2,467	\$3,557	\$2,040	\$2,942	\$1,611	\$2,319	\$2,019	\$2,910	\$77,454	\$86,999
	TOTAL PUMPING PLANT	\$47,110	\$17,081	\$30,530	\$13,863	\$27,489	\$11,146	\$34,450	\$13,621	\$2,437,478	\$1,170,314
WATER TREATMENT PLANT											
330.000	Land and Land Rights - WTP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
331.000	Structures and Improvements - WTP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
332.000	Water Treatment Equipment	\$208	\$191	\$172	\$158	\$136	\$125	\$170	\$157	\$79,783	\$32,377
	TOTAL WATER TREATMENT PLANT	\$208	\$191	\$172	\$158	\$136	\$125	\$170	\$157	\$79,783	\$32,377
TRANSMISSION & DIST. PLANT											
340.000	Land and Land Rights - TDP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$856	(\$43)
341.000	Structures and Improvements - TDP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$20,103	\$4,173
342.000	Distribution Reservoirs and Standpipes	\$3,523	\$7,805	\$2,913	\$2,320	\$2,300	\$1,830	\$2,882	\$2,295	\$1,013,992	\$535,904
343.000	Transmission and Distribution Mains	\$42,478	\$10,208	\$35,123	\$8,439	\$27,729	\$6,662	\$34,749	\$8,349	\$2,342,914	\$832,422
344.000	Fire Mains	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
345.000	Services	\$1,525	\$126	\$1,261	\$102	\$995	\$83	\$1,247	\$103	\$55,701	\$2,450
346.000	Meters	\$14,053	\$17,506	\$11,620	\$14,475	\$9,174	\$11,427	\$11,496	\$14,321	\$351,802	\$218,346
347.000	Meter Installations	\$3,421	\$2,348	\$2,828	\$1,941	\$2,233	\$1,532	\$2,798	\$1,919	\$96,812	\$68,037
348.000	Hydrants	\$1,825	\$492	\$1,509	\$406	\$1,191	\$321	\$1,493	\$401	\$99,469	\$29,938
349.000	Other Transmission & Distribution Plant	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	TOTAL TRANSMISSION & DIST. PLANT	\$66,825	\$33,485	\$55,254	\$27,683	\$43,622	\$21,855	\$54,665	\$27,388	\$3,981,649	\$1,691,227
GENERAL PLANT											
374.000	Land and Land Rights - GP	\$330	\$0	\$273	\$0	\$216	\$0	\$270	\$0	\$3,059	\$0
374.100	Land and Land Rights - Shared Services	\$125	\$0	\$104	\$0	\$82	\$0	\$102	\$0	\$5,943	\$0
390.000	Structures and Improvements - GP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
390.100	Structures & Improvements - Shared Svcs	\$5,186	\$1,124	\$4,288	\$929	\$3,385	\$734	\$4,243	\$919	\$246,009	\$54,551
391.000	Office Furniture and Equipment	\$512	\$114	\$424	\$93	\$335	\$74	\$419	\$92	\$59,604	\$17,075
391.100	Office Computer Equipment	\$390	\$495	\$322	\$408	\$254	\$324	\$319	\$404	\$10,970	\$6,720
391.200	Ofc Furniture & Equipment - Shared Svcs	\$649	\$136	\$536	\$112	\$423	\$88	\$531	\$111	\$30,762	\$6,576
391.210	Office Computer Equipment - Shared Svcs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9,450	\$0
392.000	Transportation Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$448	\$113	\$10,947	\$675
392.100	Transportation Equipment - Shared Svcs	\$547	\$139	\$452	\$115	\$357	\$90	\$0	\$0	\$15,006	\$6,731
393.000	Stores Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$531	\$365	\$15,186	\$365
394.000	Tools, Shop and Garage Equipment	\$649	\$399	\$537	\$29	\$424	\$291	\$66	\$7	\$17,333	(\$1,535)
394.100	Tools, Shop & Garage Eq - Shared Svcs	\$81	\$10	\$67	\$8	\$53	\$6	\$0	\$0	\$2,224	\$456
395.000	Laboratory Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$25,717	\$0
396.000	Power Operated Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$258	\$42	\$5,644	\$23,601
397.000	Communication Equipment	\$315	\$51	\$260	\$42	\$206	\$32	\$0	\$0	\$7,516	\$1,905
398.000	Miscellaneous Equipment	\$124	\$38	\$103	\$32	\$81	\$25	\$107	\$32	\$5,897	\$1,831
399.000	Other Tangible Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
399.000	Other Tangible Equipment	\$197	\$121	\$163	\$100	\$129	\$79	\$161	\$99	\$9,342	\$5,787
399.100	Other Tangible Equipment	\$24	\$19	\$20	\$15	\$16	\$12	\$20	\$15	\$1,335	\$913
399.300	Other Tangible Equipment	\$275	\$216	\$228	\$180	\$180	\$142	\$225	\$177	\$13,054	\$10,465
399.400	Other Tangible Equipment	\$2,272	\$1,828	\$1,878	\$1,512	\$1,483	\$1,193	\$1,858	\$1,495	\$107,749	\$88,760
399.600	Other Tangible Plant - Shared Svcs	\$13,677	\$7,309	\$11,309	\$5,043	\$8,928	\$4,771	\$11,189	\$5,979	\$648,782	\$359,136
	TOTAL GENERAL PLANT	\$25,353	\$11,999	\$20,964	\$9,618	\$16,552	\$7,861	\$20,742	\$9,850	\$1,251,330	\$584,012
TOTAL PLANT & DEPRECIATION RESERVE											
		\$152,080	\$68,277	\$121,459	\$55,886	\$99,277	\$44,590	\$124,412	\$55,531	\$8,410,195	\$3,737,613
NET PLANT IN SERVICE											
		\$83,803		\$65,573		\$54,687		\$68,881		\$4,672,582	
	CIAC	(\$452)		(\$11,449)		(\$2,606)		(\$1,433)		(\$862,200)	
	CIAC Amortization	\$439		\$8,207		\$2,159		\$910		\$311,885	
	Customer Advances									(\$7,296)	
	Customer Deposits	(\$314)		(\$259)		(\$205)		(\$257)		(\$7,112)	
	Deferred Income Taxes	(\$10,164)		(\$8,404)		(\$6,635)		(\$8,320)		(\$760,752)	
	TOTAL RATE BASE	\$73,312		\$53,668		\$47,400		\$59,781		\$3,347,107	
	Total Weighted Rate of Return, Including Income Tax	6.79%		6.79%		6.79%		6.79%		6.79%	
	Required Return excluding Income Taxes	\$4,977		\$3,644		\$3,218		\$4,059		\$227,235	

WR-2016-0170
 Liberty Utilities Water
 Source: EMS Run updated to 11-30-17

Account#	Description	Noel Water	NH/TC/OM Water	Lakewood Water	Cedar Hill Water	Scotsdale Water
ANNUALIZED REVENUES						
	Annualized Rate Revenues	\$367,223	\$352,572	\$42,235	\$35,270	\$19,269
	Miscellaneous Revenues	\$2,641	\$3,764	\$2,419	\$1,934	\$1,185
	TOTAL ANNUALIZED REVENUES	\$369,864	\$356,336	\$44,654	\$37,204	\$20,455
SOURCE OF SUPPLY EXPENSES						
601.000	Labour-Engineering	\$0	\$0	\$0	\$0	\$0
601.100	Labour-Operations-Source of Supply	\$133,865	\$32,302	\$4,430	\$3,541	\$2,172
610.000	Purchases Water-Ops-SOS	\$280	\$424	\$41	\$32	\$20
615.000	Purchases Power-Ops-SOS	\$102,924	\$58,536	\$3,173	\$2,537	\$1,556
615.000	Purchases Power-Ops-T&D	\$6,172	\$12,178	\$818	\$654	\$401
615.000	Purchases Power	\$3,123	\$0	\$0	\$0	\$0
618.000	Chemicals-Ops-WT	\$9,064	\$2,231	\$0	\$0	\$0
	TOTAL SOURCE OF SUPPLY EXPENSES	\$255,428	\$105,621	\$8,462	\$6,764	\$4,149
WATER TREATMENT EXPENSES						
636.000	Contract Service-Other-Ops-SOS	\$7,046	\$8,316	\$1,918	\$1,533	\$940
636.000	Contract Service-Other	\$14,824	\$45,665	\$36,297	\$61,031	\$10,220
636.100	Contractual Services-Outside Oper-Ops-SOS	\$1,500	\$92,972	\$0	\$0	\$0
	TOTAL WATER TREATMENT EXPENSES	\$23,390	\$146,953	\$38,215	\$62,564	\$11,160
CUSTOMER ACCOUNTS EXPENSE						
620.000	Materials and Supplies	\$17,372	\$17,753	\$1,174	\$1,213	\$576
670.000	Bad Debt Expense	\$0	\$0	\$0	\$0	\$0
675.000	Licenses and Fees	\$462	\$1,861	\$65	\$52	\$32
675.000	DNR Fees	\$2,577	\$2,599	\$669	\$694	\$426
620.200	Billing Supplies and Postage	\$4,274	\$4,452	\$833	\$666	\$608
	TOTAL CUSTOMER ACCOUNTS EXPENSE	\$24,705	\$26,665	\$2,941	\$2,625	\$1,442
ADMIN. & GENERAL EXPENSES						
604.000	Group Benefits	\$5,104	\$5,012	\$676	\$540	\$331
604.100	401K Match	\$5,355	\$1,292	\$177	\$142	\$407
604.200	Health Care/ESFP Expense	\$28,189	\$27,500	\$3,738	\$2,587	\$1,833
604.400	Group Life	\$480	\$534	\$64	\$51	\$31
634.200	IU US Allocation - Admin	\$0	\$1,668	\$197	\$158	\$97
634.300	LABS US BS Non Lab - HAR	\$525	\$189	\$69	\$56	\$34
634.700	IU Canada Allocation - Admin	\$2,207	\$2,115	\$304	\$244	\$149
634.900	APUC Allocation - Admin	\$7,511	\$8,101	\$1,012	\$809	\$496
636.800	LABS NonLabor Allocations NARDC	\$9,395	\$10,293	\$1,264	\$1,010	\$620
636.900	LABS Corporate Service Non-Labor Allocation	\$4,962	\$5,335	\$669	\$535	\$328
637.100	LABS US CS Non Labor - HAR	\$124	\$120	\$16	\$13	\$8
637.200	IU Corp US Admin Allocation	\$389	\$233	\$51	\$41	\$25
637.300	IU Region Labor	\$4,300	\$4,002	\$546	\$436	\$268
637.300	IU Region Admin Allocation	\$950	\$918	\$126	\$100	\$62
650.000	Transportation Expenses	\$3,621	\$67	\$9	\$7	\$4
650.000	Transportation Expenses-OPS-SOS	\$99	\$0	\$0	\$0	\$0
656.000	Insurance-Vehicle-ADMIN	\$390	\$380	\$50	\$40	\$25
657.000	Insurance-General Liability	\$2,906	\$2,843	\$385	\$308	\$189
658.000	Workers Compensation	\$1,303	\$1,267	\$172	\$138	\$85
666.000	Regulatory Commission Expense	\$2,366	\$2,845	\$310	\$248	\$153
675.000	Travel	\$1,124	\$493	\$65	\$52	\$31
675.000	Meals and Entertainment	\$267	\$138	\$77	\$61	\$38
675.000	Telephone Expense	\$13,721	\$7,729	\$45	\$36	\$22
675.000	Bank Charges	\$16,650	\$15,602	\$2,049	\$1,638	\$1,005
675.000	Misc. General Expenses	\$0	\$0	\$0	\$0	\$0
	TOTAL ADMIN. & GENERAL EXPENSES	\$111,938	\$98,652	\$12,071	\$9,650	\$6,742
DEPRECIATION EXPENSE						
403.000	Depreciation Expense, Dep. Exp.	\$150,283	\$121,220	\$12,428	\$9,701	\$6,096
	TOTAL DEPRECIATION EXPENSE	\$150,283	\$121,220	\$12,428	\$9,701	\$6,096
AMORTIZATION EXPENSE						
403.000	Amortization of Regulatory Assets	\$0	\$109	\$0	\$0	\$0
	TOTAL AMORTIZATION EXPENSE	\$0	\$109	\$0	\$0	\$0
OTHER OPERATING EXPENSES						
408.000	Property Taxes	\$11,914	\$6,902	\$1,673	\$1,337	\$820
408.000	Payroll Taxes	\$10,570	\$2,860	\$463	\$370	\$227
408.000	Gross Receipts Tax	\$0	\$0	\$0	\$0	\$0
408.000	Missouri Franchise Taxes	\$0	\$0	\$0	\$0	\$0
403.001	Transportation Depr Clearing	\$0	\$0	\$0	\$0	\$0
403.500	Kansas City Income Taxes Paid	\$0	\$0	\$0	\$0	\$0
0.000	Customer Deposit Expense	\$145	\$106	\$49	\$39	\$24
	TOTAL OTHER OPERATING EXPENSES	\$22,630	\$9,868	\$2,185	\$1,746	\$1,071
	TOTAL OPERATING EXPENSES	\$588,374	\$509,028	\$76,302	\$93,050	\$30,160
	Interest Expense	\$38,269	\$33,948	\$4,984	\$3,692	\$2,448
	Return on Equity	\$59,449	\$55,644	\$8,170	\$6,053	\$4,013
	Income Taxes	\$20,293	\$25,414	\$2,769	\$2,067	\$1,370
	TOTAL INTEREST RETURN & TAXES	\$118,011	\$115,006	\$15,943	\$11,812	\$7,831
	TOTAL COST OF SERVICE	\$704,385	\$624,034	\$92,245	\$104,862	\$37,991
	Less: Miscellaneous Revenues	\$2,641	\$3,764	\$2,419	\$1,934	\$1,185
	COST TO RECOVER IN RATES	\$701,744	\$620,270	\$89,826	\$102,928	\$36,805
	INCREMENTAL INCREASE IN RATE REVENUES	\$334,521	\$267,698	\$47,591	\$67,658	\$17,536
	PERCENTAGE OF INCREASE	00.64%	75.13%	100.56%	181.86%	85.73%

WR-2018-0170
 Liberty Utilities Water
 Source: EIMS Fun updated to 11-30-17

Account#	Description	Crestview Acres Water	Warren Woods Water	Hillside Water	High Ridge Water	Total Water
ANNUALIZED REVENUES						
	Annualized Rate Revenues	\$17,550	\$10,360	\$9,732	\$17,106	\$571,317
	Miscellaneous Revenues	\$929	\$760	\$606	\$768	\$15,007
	TOTAL ANNUALIZED REVENUES	\$18,479	\$11,120	\$10,336	\$17,874	\$586,324
SOURCE OF SUPPLY EXPENSES						
601.000	Labour-Engineering	\$0	\$0	\$0	\$0	\$0
601.100	Labour-Operations-Source of Supply	\$1,701	\$1,393	\$1,111	\$1,407	\$181,922
610.000	Purchases Water-Ops-SOS	\$16	\$13	\$10	\$13	\$849
615.000	Purchases Power-Ops-SOS	\$1,219	\$998	\$796	\$1,008	\$172,747
615.000	Purchases Power-Ops-T&D	\$314	\$257	\$205	\$260	\$20,949
615.000	Purchases Power	\$0	\$0	\$0	\$0	\$3,123
618.000	Chemicals-Ops-WT	\$0	\$0	\$0	\$0	\$11,295
	TOTAL SOURCE OF SUPPLY EXPENSES	\$3,250	\$2,661	\$2,122	\$2,688	\$390,855
WATER TREATMENT EXPENSES						
636.000	Contract Service-Other-Ops-SOS	\$737	\$603	\$481	\$609	\$22,183
636.000	Contract Service-Other	\$17,863	\$5,822	\$9,326	\$28,813	\$229,681
636.100	Contractual Services Outside Oper-Ops-SOS	\$0	\$0	\$0	\$0	\$94,472
	TOTAL WATER TREATMENT EXPENSES	\$18,600	\$6,425	\$9,807	\$29,422	\$346,336
CUSTOMER ACCOUNTS EXPENSE						
670.000	Materials and Supplies	\$451	\$369	\$294	\$373	\$39,575
670.000	Bad Debt Expense	\$0	\$0	\$0	\$0	\$0
675.000	Licenses and Fees	\$25	\$21	\$16	\$21	\$2,554
675.000	DNR Fees	\$334	\$273	\$218	\$276	\$8,266
670.200	Printing Supplies and Postage	\$460	\$262	\$209	\$414	\$11,918
	TOTAL CUSTOMER ACCOUNTS EXPENSE	\$1,210	\$925	\$737	\$1,084	\$62,313
ADMIN. & GENERAL EXPENSES						
604.000	Group Benefits	\$260	\$212	\$169	\$215	\$12,519
604.100	401K Match	\$68	\$56	\$44	\$56	\$7,541
604.200	Health Care/ESPP Expense	\$1,436	\$1,187	\$937	\$1,187	\$68,994
604.400	Group Life	\$25	\$20	\$16	\$20	\$1,221
634.200	IU US Allocation - Admin	\$76	\$62	\$49	\$63	\$2,307
634.300	LARS US BS Non Lab - NAR	\$27	\$22	\$17	\$22	\$961
634.700	IU Canada Allocation - Admin	\$117	\$96	\$76	\$97	\$5,405
634.900	APUC Allocation - Admin	\$389	\$318	\$254	\$321	\$18,890
636.800	IABS NonLabor Allocations NARUC	\$485	\$397	\$317	\$401	\$23,781
636.900	IABS Corporate Service Non-Labour Allocation	\$257	\$210	\$168	\$212	\$12,464
637.100	IABS US CS Non Labor - NAR	\$6	\$5	\$4	\$5	\$296
637.200	IU Corp US Admin Allocation	\$20	\$16	\$13	\$16	\$784
637.300	IU Region Labor	\$210	\$172	\$137	\$173	\$10,244
637.300	IU Region Admin Allocation	\$46	\$40	\$32	\$40	\$2,316
650.000	Transportation Expenses	\$3	\$3	\$2	\$3	\$3,716
650.000	Transportation Expenses-OPS-SOS	\$0	\$0	\$0	\$0	\$99
656.000	Insurance-Vehicle-ADMIN	\$19	\$16	\$13	\$16	\$933
657.000	Insurance-General Liability	\$148	\$121	\$96	\$122	\$7,118
658.000	Workers Compensation	\$66	\$54	\$43	\$55	\$3,183
666.000	Regulatory Commission Expense	\$119	\$97	\$78	\$99	\$6,216
675.000	Travel	\$25	\$20	\$16	\$21	\$1,827
675.000	Meals and Entertainment	\$29	\$24	\$19	\$24	\$673
675.000	Telephone Expense	\$17	\$14	\$11	\$14	\$21,609
675.000	Bank Charges	\$782	\$644	\$514	\$651	\$39,540
675.000	Misc. General Expenses	\$0	\$0	\$0	\$0	\$0
	TOTAL ADMIN. & GENERAL EXPENSES	\$4,637	\$3,806	\$3,025	\$3,833	\$252,637
DEPRECIATION EXPENSE						
403.000	Depreciation Expense, Dep. Exp.	\$4,772	\$3,906	\$3,119	\$3,839	\$315,364
	TOTAL DEPRECIATION EXPENSE	\$4,772	\$3,906	\$3,119	\$3,839	\$315,364
AMORTIZATION EXPENSE						
403.000	Amortization of Regulatory Assets	\$0	\$0	\$0	\$0	\$109
	TOTAL AMORTIZATION EXPENSE	\$0	\$0	\$0	\$0	\$109
OTHER OPERATING EXPENSES						
408.000	Property Taxes	\$642	\$526	\$419	\$533	\$24,764
408.000	Payroll Taxes	\$178	\$146	\$116	\$147	\$15,017
408.000	Gross Receipts Tax	\$0	\$0	\$0	\$0	\$0
408.000	Missouri Franchise Taxes	\$0	\$0	\$0	\$0	\$0
403.001	Transportation Depr Clearing	\$0	\$0	\$0	\$0	\$0
403.500	Kansas City Income Taxes Paid	\$0	\$0	\$0	\$0	\$0
0.000	Customer Deposit Expense	\$19	\$15	\$12	\$16	\$410
	TOTAL OTHER OPERATING EXPENSES	\$839	\$687	\$547	\$694	\$40,191
	TOTAL OPERATING EXPENSES	\$33,308	\$18,410	\$19,357	\$41,560	\$1,409,549
	Interest Expense	\$1,916	\$1,562	\$1,239	\$1,402	\$87,460
	Return on Equity	\$3,140	\$2,560	\$2,030	\$2,299	\$143,358
	Income Taxes	\$1,057	\$873	\$693	\$785	\$55,341
	TOTAL INTEREST RETURN & TAXES	\$6,113	\$4,995	\$3,962	\$4,486	\$286,159
	TOTAL COST OF SERVICE	\$39,421	\$23,405	\$23,319	\$46,046	\$1,695,708
	Less: Miscellaneous Revenues	\$929	\$760	\$606	\$768	\$15,007
	COST TO RECOVER IN RATES	\$38,492	\$22,645	\$22,713	\$45,278	\$1,680,701
	INCREMENTAL INCREASE IN RATE REVENUES	\$20,942	\$12,285	\$12,981	\$28,172	\$809,344
	PERCENTAGE OF INCREASE	113.33%	110.48%	125.57%	157.81%	91.32%

SR-2018-0171

Liberty Utilities/Rate Base

Source: EMS Run Ending Balance 11-30-17

Account #	Plant Account Description	TC/OM - Sewer		Cape Rock - Sewer		Total Sewer	
		Plant	Depr. Res.	Plant	Depr. Res.	Plant	Depr. Res.
INTANGIBLE PLANT							
301.000	Organization - IP	\$0	\$0	\$3,000	\$3,025	\$3,000	\$3,025
302.000	Franchises - IP	\$0	\$0	\$0	\$0	\$0	\$0
303.000	Miscellaneous Intangible Plant - IP	\$0	\$0	\$0	\$0	\$0	\$0
	TOTAL PLANT INTANGIBLE	\$0	\$0	\$3,000	\$3,025	\$3,000	\$3,025
COLLECTION PLANT							
350.000	Land and Land Rights - CP	\$0	\$0	\$8,800	\$0	\$8,800	\$0
350.100	Land and Land Rights - Shared Services	\$0	\$0	\$0	\$0	\$0	\$0
351.000	Structures and Improvements	\$403,589	\$9,874	\$0	\$0	\$403,589	\$9,874
352.100	Collection Sewers, Force - CP	\$10,497	\$4,789	\$0	\$0	\$10,497	\$4,789
352.200	Collection Sewers, Gravity - CP	\$481,146	\$134,336	\$56,676	\$4,062	\$537,822	\$138,398
353.000	Services to Customers - CP	\$0	\$0	\$3,400	\$28	\$3,400	\$28
354.000	Flow Measuring Devices - CP	\$9,295	\$4,419	\$13,137	\$294	\$22,432	\$4,713
355.000	Flow Measuring Installations - CP	\$2,909	\$132	\$0	\$0	\$2,909	\$132
	TOTAL COLLECTION PLANT	\$907,436	\$153,550	\$82,013	\$4,384	\$989,449	\$157,934
SYSTEM PUMPING PLANT							
362.000	Receiving Wells - SPP	\$10,661	\$8,150	\$0	\$0	\$10,661	\$8,150
363.000	Electric Pumping Equipment - SPP	\$262,207	\$351,806	\$151,400	\$107,113	\$413,607	\$458,919
	TOTAL SYSTEM PUMPING PLANT	\$272,868	\$359,956	\$151,400	\$107,113	\$424,268	\$467,069
TREATMENT & DISPOSAL PLANT							
372.000	Treatment & Disposal Equipment - TDP	\$621,995	\$345,420	\$87,132	\$44,583	\$709,127	\$390,003
372.100	Oxidation Lagoons	\$0	\$0	\$0	\$0	\$0	\$0
373.000	Plant Sewers - TDP	\$15,772	\$8,520	\$8,104	\$0	\$23,876	\$8,520
374.000	Outfall Sewer Lines - TDP	\$3,892	\$948	\$0	\$0	\$3,892	\$948
	TOTAL TREATMENT & DISPOSAL PLANT	\$641,659	\$354,888	\$95,236	\$44,583	\$736,895	\$399,471
GENERAL PLANT							
374.000	Land and Land Rights - GP	\$0	\$0	\$338	\$0	\$338	\$0
390.000	Structures and Improvements - GP	\$1,057	\$0	\$1,301	\$0	\$2,358	\$0
390.100	Structures & Improvements - Shared Svcs	\$43,772	\$9,493	\$13,992	\$3,035	\$57,764	\$12,528
391.000	Office Furniture & Equipment	\$7,990	\$1,334	\$19,663	\$1,480	\$27,653	\$2,814
391.100	Office Computer Equipment	\$0	\$0	\$0	\$0	\$0	\$0
391.200	Ofc Furniture & Equipment-Shared Svcs	\$5,473	\$1,144	\$1,750	\$366	\$7,223	\$1,510
391.210	Ofc Computer Equipment-Shared Svcs	\$0	\$0	\$0	\$0	\$0	\$0
392.000	Transportation Equipment	\$0	\$0	\$0	\$0	\$0	\$0
392.100	Transportation Equipment-Shared Svcs	\$4,618	\$1,170	\$1,476	\$374	\$6,094	\$1,544
393.000	Stores Equipment	\$0	\$0	\$3,527	\$2,627	\$3,527	\$2,627
394.000	Tools, Shop & Garage Equipment	\$2,341	\$38	\$1,913	\$44	\$4,254	\$82
394.100	Tools, Shop & Garage Eq-Shared Svcs	\$684	\$79	\$219	\$25	\$903	\$104
396.000	Power Operated Equipment	\$0	\$0	\$0	\$0	\$0	\$0
397.000	Communication Equipment	\$0	\$0	\$0	\$0	\$0	\$0
398.000	Misc. Equipment	\$1,049	\$323	\$335	\$103	\$1,384	\$426
399.000	Other Tangible Plant	\$1,662	\$1,023	\$531	\$327	\$2,193	\$1,350
399.100	Other Tangible Plant-Severs	\$202	\$160	\$65	\$51	\$267	\$211
399.300	Other Tangible Plant-Network HW	\$2,323	\$1,830	\$742	\$585	\$3,065	\$2,415
399.400	Other Tangible Plant - PC-SW	\$19,172	\$15,437	\$6,129	\$4,935	\$25,301	\$20,372
399.600	Other Tangible Plant - PC-SW	\$115,436	\$61,734	\$36,901	\$19,734	\$152,337	\$81,468
	TOTAL GENERAL PLANT	\$205,779	\$93,765	\$88,882	\$33,686	\$294,661	\$127,451
	TOTAL PLANT & DEPRECIATION RESERVE	\$2,027,742	\$962,159	\$420,531	\$192,791	\$2,448,273	\$1,154,950
	NET PLANT IN SERVICE	\$1,065,583		\$227,740		\$1,293,323	
	CIAC	(\$223,340)				(\$223,340)	
	CIAC Amortization	\$71,880				\$71,880	
	Customer Advances					\$0	
	Customer Deposits					\$0	
	Deferred Income Taxes	(\$200,273)		(\$29,708)		(\$229,981)	
	TOTAL RATE BASE	\$713,850		\$198,032		\$911,882	
	Total Weighted Rate of Return, Including Income Tax	6.79%		6.79%		6.79%	
		\$48,463		\$13,444		\$61,908	

SR-2018-0171

Liberty Utilities Sewer

Source: EMS Run updated to 11-30-17

Account #	Description	TC/OM Sewer	Cape Rock Sewer	Total Sewer Sewer
ANNUALIZED REVENUES				
	Annualized Rate Revenues	\$202,143	\$56,238	\$258,381
	Miscellaneous Revenues	\$0	\$1,220	\$1,220
	TOTAL ANNUALIZED REVENUES	\$202,143	\$57,458	\$259,601
SOURCE OF SUPPLY EXPENSES				
701.000	Labour-Engineering	\$0	\$0	\$0
701.100	Salaries and Wages-Operations	\$14,359	\$7,568	\$21,927
715.100	Purchases Power-Ops-Collect	\$14,295	\$2,832	\$17,127
715.500	Purchases Power-Ops-T&D	\$6,210	\$1,974	\$8,184
737.400	LU Region Labor	\$0	\$710	\$710
	TOTAL SOURCE OF SUPPLY EXPENSES	\$34,864	\$13,034	\$47,898
COLLECTION MAINT. EXPENSES				
718.500	Chemicals-Ops-Treat&Disp	\$13,814	\$0	\$13,814
720.000	Materials & Supplies	\$0	\$0	\$0
735.500	Contract Serv-Test-Ops-T&D	\$2,418	\$0	\$2,418
736.100	Contract Serv-Other-Ops-Collect	\$90	\$0	\$90
736.100	Contract Services-Other	\$53,645	\$1,637	\$55,282
736.200	Contract Serv-Outside Oper-Ops-Collect	\$66,078	\$18,378	\$84,456
	TOTAL WATER TREATMENT EXPENSES	\$135,045	\$20,015	\$156,060
CUSTOMER ACCOUNTS EXPENSE				
720.800	Materials & Supplies	\$119	\$37	\$156
	TOTAL CUSTOMER ACCOUNTS EXPENSE	\$119	\$37	\$156
ADMIN. & GENERAL EXPENSES				
704.000	Group Benefits	\$2,163	\$701	\$2,864
704.100	401K Match	\$303	\$574	\$877
704.200	Health Care/ESPP Expense	\$11,800	\$3,990	\$15,790
704.400	Group Life	\$210	\$87	\$297
750.000	Transportation Expenses	\$29	\$10	\$39
756.000	Insurance-Vehicle-ADMIN	\$166	\$52	\$218
757.000	Insurance-General Liability	\$1,228	\$395	\$1,623
758.000	Workers Compensation	\$549	\$174	\$723
775.000	Licenses and Fees	\$72	\$6	\$78
775.000	Travel	\$158	\$66	\$224
775.000	Meals and Entertainment	\$60	\$103	\$163
775.000	Telephone Expense	\$58	\$18	\$76
737.100	LABS US Bus Labor Alloc	\$220	\$68	\$288
737.200	LABS US Corp Admin Alloc	\$52	\$16	\$68
737.300	LU Corp US Admin Alloc	\$163	\$51	\$214
737.400	LU Region Admin Allocation	\$2,372	\$734	\$3,106
767.800	Regulatory Commission Expense	\$1,046	\$502	\$1,548
775.800	Licenses and Fees	\$2,680	\$73	\$2,753
775.800	DNR Fees	\$6,000	\$3,000	\$9,000
	TOTAL ADMIN. & GENERAL EXPENSES	\$29,329	\$10,620	\$39,949
DEPRECIATION EXPENSE				
403.000	Depreciation Expense, Dep. Exp.	\$81,722	\$30,090	\$111,812
	TOTAL DEPRECIATION EXPENSE	\$81,722	\$30,090	\$111,812
OTHER OPERATING EXPENSES				
408.000	Property Taxes	\$2,266	\$1,942	\$4,208
408.000	Payroll Taxes	\$788	\$1,428	\$2,216
408.000	Gross Receipts Tax	\$0	\$0	\$0
408.000	Missouri Franchise Taxes	\$0	\$0	\$0
	TOTAL OTHER OPERATING EXPENSES	\$3,054	\$3,370	\$6,424
	TOTAL OPERATING EXPENSES	\$285,133	\$77,166	\$362,299
	Interest Expense	\$18,653	\$5,175	\$23,828
	Return on Equity	\$30,574	\$8,481	\$39,055
	Income Taxes	\$10,437	\$2,895	\$13,332
	TOTAL INTEREST RETURN & TAXES	\$59,664	\$16,551	\$76,215
	TOTAL COST OF SERVICE	\$344,797	\$93,717	\$438,514
	Less: Miscellaneous Revenues	\$0	\$1,220	\$1,220
	COST TO RECOVER IN RATES	\$344,797	\$92,497	\$437,294
	INCREMENTAL INCREASE IN RATE REVENUES	\$142,654	\$36,259	\$178,913
	PERCENTAGE OF INCREASE	70.57%	63.11%	68.92%

WR-2018-0171 (SR-2018-0171)
 Liberty Utilities (Missouri Water)
 Water & Sewer Rate Base Improvements
 Schedule PRH-S3

	Beg Date	Beginning Balance Net Rate Base	Ending Balance Net Rate Base	End Date	Difference
Cedar Hills	5/31/2010	\$16,284	\$163,111	11/30/2017	\$146,827
Crestview Acres	5/31/2010	\$23,886	\$83,792	11/30/2017	\$59,906
High Ridge Manor	5/31/2010	(\$2,584)	\$62,333	11/30/2017	\$64,917
Hillshine Manor	5/31/2010	\$15,125	\$54,238	11/30/2017	\$39,113
Lakewood Hills	5/31/2010	\$74,083	\$218,029	11/30/2017	\$143,946
Scotsdale	5/31/2010	\$46,997	\$107,066	11/30/2017	\$60,069
Warren Woods	5/31/2010	\$30,998	\$68,356	11/30/2017	\$37,358
Total KMB		\$204,789	\$756,925		\$552,136
Noel	6/30/2009	\$763,026	\$1,678,023	2/28/2018	\$914,997
HH, OM & TC	9/30/2005	\$1,201,829	\$1,687,310	11/30/2017	\$485,481
OM & TC Sewer	9/30/2005	\$447,339	\$914,124	11/30/2017	\$466,785
Cape Rock Sewer	5/31/2010	\$72,694	\$227,739	11/30/2017	\$155,045
Total Water		\$1,952,614			
Total Sewer		\$621,830			