

MISSOURI PUBLIC SERVICE COMMISSION

STAFF REPORT

COST OF SERVICE

APPENDIX 1

Staff Credentials

LAKE REGION WATER & SEWER COMPANY

CASE NO. WR-2013-0461

*Jefferson City, Missouri
November 2013*

APPENDIX 1
STAFF CREDENTIALS
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SHANA ATKINSON

Educational and Employment Background and Credentials

I am currently employed as a Utility Regulatory Auditor I for the Missouri Public Service Commission (Commission). I accepted the position of Utility Regulatory Auditor I in December 2008.

In May 2007, I earned a Bachelor of Science in Accountancy and a Master of Accountancy degree from the University of Missouri-Columbia. My accounting degree required an understanding of financial concepts, including the cost of capital.

On June 21, 2010, I was awarded the Certified Rate of Return Analyst (CRRA) professional designation by the Society of Utility and Regulatory Financial Analysts (SURFA). This designation is awarded based upon experience and successful completion of a written examination, which I completed during my attendance at a SURFA conference in April 2010.

In addition to my Summary of Case Participation, I have developed rate of return recommendations for numerous small water and sewer rate cases and have assisted as needed in small water and sewer certificate cases.

SUMMARY OF CASE PARTICIPATION

SHANA ATKINSON

Date Filed	Issue	Case Number	Exhibit	Case Name
2/4/2013	Rate of Return Capital Structure	ER-2012-0345	Surrebuttal	Empire District Electric Company
1/16/2013	Rate of Return Capital Structure	ER-2012-0345	Rebuttal	Empire District Electric Company
11/30/2012	Rate of Return Capital Structure	ER-2012-0345	Cost of Service Report	Empire District Electric Company
8/20/2012	Rate of Return Capital Structure	ER-2012-0345	Interim Rebuttal	Empire District Electric Company
5/6/2011	Rate of Return Capital Structure	ER-2011-0004	True-Up Direct	Empire District Electric Company
4/28/2011	Rate of Return Capital Structure	ER-2011-0004	Surrebuttal	Empire District Electric Company
4/18/2011	Rate of Return Capital Structure	ER-2011-0004	Rebuttal	Empire District Electric Company
2/23/2011	Rate of Return Capital Structure	ER-2011-0004	Cost of Service Report	Empire District Electric Company
4/23/2010	Rate of Return Capital Structure	ER-2010-0130	Surrebuttal	Empire District Electric Company
4/02/2010	Rate of Return Capital Structure	ER-2010-0130	Rebuttal	Empire District Electric Company
2/26/2010	Rate of Return Capital Structure	ER-2010-0130	Cost of Service Report	Empire District Electric Company

SUMMARY OF CASE PARTICIPATION

SHANA ATKINSON

Date Filed	Issue	Case Number	Exhibit	Case Name
1/13/2010	Rate of Return Capital Structure	WR-2010-0111	Cost of Service Report	Lake Region Water & Sewer Company
1/13/2010	Rate of Return Capital Structure	SR-2010-0110	Cost of Service Report	Lake Region Water & Sewer Company
10/20/2009	Rate of Return Capital Structure	GR-2009-0434	Cost of Service Report	Empire District Gas Company

Deborah Ann Bernsen

Education:

Master's Degree in Public Administration
University of Missouri-Columbia, Columbia, MO-1990

Bachelor of Science Degree in Business Administration
University of Missouri-Columbia, Columbia, MO-1975

Professional Certifications:

Certified Internal Auditor – November 2004

Professional Experience:

Missouri Public Service Commission, Jefferson City, MO
Management Analyst-1978
Consumer Services Specialist-1976-1978
Graduate internship, Commissioner Assistant-1976

Appointed to Missouri Public Service Commission Retail Electric Competition Task Force to study retail electric competition -1999

Member and Chair for 3 years of NARUC Staff Subcommittee under the Committee of Finance and Technology and Accounting

Instructed at Michigan State University in the Regulatory Studies Program

Led Staff Audits, as well as provided oversight for the use of outside consultants providing services for the Commission Staff.

TESTIMONY SUMMARY

DEBORAH ANN BERNSEN

DATE FILED	ISSUES	CASE NUMBER	FILING TYPE	COMPANY NAME
10/07/1983	Management Efficiency	TR-83-253	Rebuttal	Southwestern Bell Telephone Company
1983	Customer Service	GR-83-225	Direct	Gas Service Company
07/03/1985	Management Efficiency; Rate of Return Adjustment	ER-85-128 & EO-85-185	Direct	Kansas City Power & Light
11/17/1989	Capital Deployment	TR-89-196	Rebuttal	Contel of Missouri, Inc.
10/07/1992	Affiliated Transactions	WR-92-207 & SR-92-208	Surrebuttal	Missouri Cities Water Company
05/02/2000	Customer Service	EM-2000-292	Rebuttal	Utilicorp United Inc./St. Joseph Light and Power
06/26/2001	Customer Service	WM-2001-309	Rebuttal	Missouri-American Water Company, et al
12/06/2001	Customer Service Call Center Reporting	EC-2002-265	Direct	UtiliCorp United Inc. d/b/a Missouri Public Service
12/06/2001	Call Center Reporting	ER-2001-672	Direct	UtiliCorp United Inc. d/b/a Missouri Public Service
06/24/2002	Alternative Regulation Plan - Quality of Service	EC-2002-1	Surrebuttal	Union Electric Company d/b/a AmerenUE
03/17/2003	Quality of Service	GM-2003-0238	Rebuttal	Southern Union Company d/b/a Missouri Gas Energy
10/03/2003	Customer Service	WR-2003-0500 & WC-2004-0168	Direct	Missouri-American Water Company
05/2004	Customer Service; Rate of Return Adjustment	GR-2004-0209	Direct & Rebuttal	Missouri Gas Energy
09/2006	Performance Measures	EO-2006-0314	Rebuttal	Kansas City Power and Light

Kimberly K. Bolin
Utility Regulatory Auditor V

EDUCATION

Bachelors of Business Administration
Central Missouri State University, Warrensburg, MO – May 1993

PROFESSIONAL EXPERIENCE

Missouri Public Service Commission
Utility Regulatory Auditor V
January 2008-Present
Utility Regulatory Auditor IV
November 2006 – January 2008
Utility Regulatory Auditor III
March 2006 – November 2006
Accountant I
April 2005 – February 2006

Missouri Office of the Public Counsel
Public Utility Accountant
September 1994 – April 2005

Missouri Department of Revenue, Taxation
Tax Processing Technician
July 1993 – August 1994

I graduated from Central Missouri State University in Warrensburg, Missouri, with a Bachelor of Science in Business Administration, major emphasis in Accounting, in May 1993. Before coming to work at the Missouri Public Service Commission, I was employed by the Missouri Office of the Public Counsel as a Public Utility Accountant from September 1994 to April 2005. I commenced employment with the Missouri Public Service Commission in April 2005.

I am responsible for performing audits and examinations of the books and records of public utilities operating within the state of Missouri. Please refer to Schedule KKB 1, for a list of the cases in which I have filed testimony before the Missouri Public Service Commission.

**CASE PARTICIPATION
OF
KIMBERLY K. BOLIN**

<u>Company Name</u>	<u>Case Number</u>	<u>Testimony/Issues</u>	<u>Contested or Settled</u>
Empire District Electric Company	ER-2012-0345	<p><u>Direct</u> - Overview of Staff's Filing <u>Report on Cost of Service</u> – SWPA Hydro Reimbursement, Joplin Tornado AAO Asset, SPP Revenues, SPP Expenses, Regulatory Plan Amortization Impacts, SWPA Amortization, Tornado AAO Amortization <u>Rebuttal</u> – Unamortized Balance of Joplin Tornado AAO, Rate Case Expense, True-Up and Uncontested Issues <u>Surrebuttal</u> – Unamortized Balance of Joplin Tornado AAO, SPP Transmission Expense, True-Up, Advanced Coal Investment Tax Credit</p>	Settled
Missouri-American Water Company	WR-2011-0337	<p><u>Direct</u> – Overview of Staff's Filing <u>Report on Cost of Service</u> - True-Up Recommendation, Tank Painting Tracker, Tank Painting Expense <u>Rebuttal</u> - Tank Painting Expense, Business Transformation <u>Surrebuttal</u> – Tank Painting Tracker, Acquisition Adjustment</p>	Settled
Missouri-American Water Company	WR-2010-0131	<p><u>Report on Cost of Service</u> - Pension/OPEB Tracker, Tank Painting Tracker, Deferred Income Taxes, FAS 87 Pension Costs, FAS 106 – Other Post-Employment Benefits, Incentive Compensation, Group Insurance and 401(k) Employer Costs, Tank Painting Expense, Dues and Donations, Advertising Expense, Promotional Items, Current and Deferred Income Tax Expense</p>	Settled
Empire District Gas Company	GR-2009-0434	<p><u>Report on Cost of Service</u> – Prepaid Pension Asset, Pension Tracker Asset/Liability, Unamortized Accounting Authority Order Balances, Pension Expense, OPEBs, Amortization of Stock Issuance Costs, Amortization of Accounting Authority Orders <u>Direct</u> – Overview of Staff's Filing</p>	Settled

**CASE PARTICIPATION
OF
KIMBERLY K. BOLIN**

<u>Company Name</u>	<u>Case Number</u>	<u>Testimony/Issues</u>	<u>Contested or Settled</u>
Laclede Gas Company	GT-2009-0056	<u>Surrebuttal Testimony</u> – Tariff	Contested
Missouri-American Water Company	WR-2008-0311 & SR-2008-0312	<u>Report on Cost of Service</u> – Tank Painting Tracker, Lobbying Costs, PSC Assessment <u>Direct</u> – Overview of Staff's Filing <u>Rebuttal</u> – True-Up Items, Unamortized Balance of Security AAO, Tank Painting Expense, Fire Hydrant Painting Expense <u>Surrebuttal</u> – Unamortized Balance of Security AAO, Cedar Hill Waste Water Plant, Tank Painting Expense, Fire Hydrant Painting Expense	Settled
Missouri Gas Utility, Inc.	GR-2008-0060	<u>Report on Cost of Service</u> – Plant-in Service/Capitalization Policy, Plant-in Service/Purchase Price Valuation, Depreciation Reserve, Revenues, Uncollectible Expense	Settled
Laclede Gas Company	GR-2007-0208	<u>Direct</u> - Test Year and True-Up, Environmental costs, AAOs, Revenue, Miscellaneous Revenue, Gross receipts Tax, Gas Costs, Uncollectibles, EWCR, AMR, Acquisition Adjustment	Settled
Kansas City Power and Light Company	ER-2006-0314	<u>Direct</u> - Gross Receipts Tax, Revenues, Weather Normalization, Customer Growth/Loss Annualization, Large Customer Annualization, Other Revenue, Uncollectible (Bad Debt) Expense, Payroll, A&G Salaries Capitalization Ratio, Payroll Taxes, Employer 401 (k) Match, Other Employee Benefits <u>Surrebuttal</u> - Uncollectible (Bad Debt) Expense, Payroll, A&G Salaries Capitalization Ratio, Other Employee Benefits	Contested
Missouri Gas Energy	GR-2006-0204	<u>Direct</u> - Payroll, Incentive Compensation, Payroll Taxes, Employee Benefits, Lobbying, Customer & Governmental Relations Department, Collections Contract	Settled

**CASE PARTICIPATION
OF
KIMBERLY K. BOLIN**

WHILE EMPLOYED WITH THE OFFICE OF THE PUBLIC COUNSEL

<u>Company Name</u>	<u>Case Number</u>	<u>Testimony/Issues</u>	<u>Contested or Settled</u>
Missouri Gas Energy	GU-2005-0095	<u>Rebuttal</u> - Accounting Authority Order <u>Surrebuttal</u> - Accounting Authority Order	Contested
The Empire District Electric Company	ER-2004-0570	<u>Direct</u> - Payroll	Settled
Missouri American Water Company & Cedar Hill Utility Company	SM-2004-0275	<u>Direct</u> - Acquisition Premium	Settled
Missouri Gas Energy	GR-2004-0209	<u>Direct</u> - Safety Line Replacement Program; Environmental Response Fund; Dues & Donations; Payroll; Customer & Governmental Relations Department Disallowance; Outside Lobbyist Costs <u>Rebuttal</u> - Customer Service; Incentive Compensation; Environmental Response Fund; Lobbying/Legislative Costs <u>True-Up</u> - Rate Case Expense	Contested
Osage Water Company	ST-2003-0562 / WT-2003-0563	<u>Direct</u> - Payroll <u>Rebuttal</u> - Payroll; Lease Payments to Affiliated Company; alleged Legal Requirement of a Reserve	Case Dismissed
Missouri American Water Company	WR-2003-0500	<u>Direct</u> - Acquisition Adjustment; Water Treatment Plant Excess Capacity; Retired Treatment Plan; Affiliated Transactions; Security AAO; Advertising Expense; Customer Correspondence	Settled
Empire District Electric	ER-2002-424	<u>Direct</u> - Dues & Donations; Memberships; Payroll; Security Costs <u>Rebuttal</u> - Energy Traders' Commission <u>Surrebuttal</u> - Energy Traders' Commission	Settled

**CASE PARTICIPATION
OF
KIMBERLY K. BOLIN**

WHILE EMPLOYED WITH THE OFFICE OF THE PUBLIC COUNSEL

<u>Company Name</u>	<u>Case Number</u>	<u>Testimony/Issues</u>	<u>Contested or Settled</u>
Laclede Gas Company	GR-2002-356	<u>Direct</u> - Advertising Expense; Safety Replacement Program and the Copper Service Replacement Program; Dues & Donations; Rate Case Expense <u>Rebuttal</u> - Gas Safety Replacement Program / Deferred Income Taxes for AAOs	Settled
Missouri-American Water Company	WO-2002-273	<u>Rebuttal</u> - Accounting Authority Order <u>Cross-Surrebuttal</u> - Accounting Authority Order	Contested
Environmental Utilities	WA-2002-65	<u>Direct</u> - Water Supply Agreement <u>Rebuttal</u> - Certificate of Convenience & Necessity	Contested
Warren County Water & Sewer	WC-2002-160 / SC-2002-155	<u>Direct</u> - Clean Water Act Violations; DNR Violations; Customer Service; Water Storage Tank; Financial Ability; Management Issues <u>Surrebuttal</u> - Customer Complaints; Poor Management Decisions; Commingling of Regulated & Non-Related Business	Contested
Laclede Gas Company	GR-2001-629	<u>Direct</u> - Advertising Expense; Safety Replacement Program; Dues & Donations; Customer Correspondence	Settled
Gateway Pipeline Company	GM-2001-585	<u>Rebuttal</u> - Acquisition Adjustment; Affiliated Transactions; Company's Strategic Plan	Contested
Empire District Electric	ER-2001-299	<u>Direct</u> - Payroll; Merger Expense <u>Rebuttal</u> - Payroll <u>Surrebuttal</u> - Payroll	Settled
Osage Water Company	SR-2000-556 / WR-2000-557	<u>Direct</u> - Customer Service	Contested

**CASE PARTICIPATION
OF
KIMBERLY K. BOLIN**

WHILE EMPLOYED WITH THE OFFICE OF THE PUBLIC COUNSEL

<u>Company Name</u>	<u>Case Number</u>	<u>Testimony/Issues</u>	<u>Contested or Settled</u>
St. Louis County Water Company	WR-2000-844	<u>Direct</u> - Main Incident Expense	Settled
Missouri American Water Company	WR-2000-281/ SR-2000-282	<u>Direct</u> - Water Plant Premature Retirement; Rate Case Expense <u>Rebuttal</u> - Water Plant Premature Retirement <u>Surrebuttal</u> - Water Plant Premature Retirement	Contested
Laclede Gas Company	GR-99-315	<u>Direct</u> - Advertising Expense; Dues & Donations; Miscellaneous Expense; Items to be Trued-up	Contested
St. Joseph Light & Power	HR-99-245	<u>Direct</u> - Advertising Expense; Dues & Donations; Miscellaneous Expense; Items to be Trued-up <u>Rebuttal</u> - Advertising Expense <u>Surrebuttal</u> - Advertising Expense	Settled
St. Joseph Light & Power	ER-99-247	<u>Direct</u> - Merger Expense; Rate Case Expense; Deferral of the Automatic Mapping/Facility Management Costs <u>Rebuttal</u> - Merger Expense; Rate Case Expense; Deferral of the Automatic Mapping/Facility Management Costs <u>Surrebuttal</u> - Merger Expense; Rate Case Expense; Deferral of the Automatic Mapping/Facility Management Costs	Settled
Laclede Gas Company	GR-98-374	<u>Direct</u> - Advertising Expense; Gas Safety Replacement AAO; Computer System Replacement Costs	Settled
Missouri Gas Energy	GR-98-140	<u>Direct</u> - Payroll; Advertising; Dues & Donations; Regulatory Commission Expense; Rate Case Expense	Contested

**CASE PARTICIPATION
OF
KIMBERLY K. BOLIN**

WHILE EMPLOYED WITH THE OFFICE OF THE PUBLIC COUNSEL

<u>Company Name</u>	<u>Case Number</u>	<u>Testimony/Issues</u>	<u>Contested or Settled</u>
Gascony Water Company, Inc.	WA-97-510	<u>Rebuttal</u> - Rate Base; Rate Case Expense; Cash Working Capital	Settled
Union Electric Company	GR-97-393	<u>Direct</u> - Interest Rates for Customer Deposits	Settled
St. Louis County Water Company	WR-97-382	<u>Direct</u> - Interest Rates for Customer Deposits, Main Incident Expense	Settled
Associated Natural Gas Company	GR-97-272	<u>Direct</u> - Acquisition Adjustment; Interest Rates for Customer Deposits <u>Rebuttal</u> - Acquisition Adjustment; Interest Rates for Customer Deposits <u>Surrebuttal</u> - Interest Rates for Customer Deposits	Contested
Missouri-American Water Company	WA-97-45	<u>Rebuttal</u> - Waiver of Service Connection Charges	Contested
Imperial Utility Corporation	SC-96-427	<u>Direct</u> - Revenues, CIAC <u>Surrebuttal</u> - Payroll; Uncollectible Accounts Expense; Rate Case Expense, Revenues	Settled
St. Louis Water Company	WR-96-263	<u>Direct</u> -Main Incident Repairs <u>Rebuttal</u> - Main Incident Repairs <u>Surrebuttal</u> - Main Incident Repairs	Contested
Steelville Telephone Company	TR-96-123	<u>Direct</u> - Depreciation Reserve Deficiency	Settled

**CASE PARTICIPATION
OF
KIMBERLY K. BOLIN**

WHILE EMPLOYED WITH THE OFFICE OF THE PUBLIC COUNSEL

<u>Company Name</u>	<u>Case Number</u>	<u>Testimony/Issues</u>	<u>Contested or Settled</u>
Missouri-American Water Company	WR-95-205/ SR-95-206	<u>Direct</u> - Property Held for Future Use; Premature Retirement of Sewer Plant; Depreciation Study Expense; Deferred Maintenance <u>Rebuttal</u> - Property Held for Future Use; Premature Retirement of Sewer Plant; Deferred Maintenance <u>Surrebuttal</u> - Property Held for Future Use; Premature Retirement of Sewer Plant	Contested
St. Louis County Water Company	WR-95-145	<u>Rebuttal</u> - Tank Painting Reserve Account; Main Repair Reserve Account <u>Surrebuttal</u> - Main Repair Reserve Account	Contested

Erin M Carle
Utility Regulatory Auditor

Present Position:

I am a Utility Regulatory Auditor in the Auditing Unit, of the Utility Services Department of the Missouri Public Service Commission. I have been employed by the Missouri Public Service Commission since January of 2008.

Educational Background and Work Experience:

I received a Bachelor of Science degree in Accounting with a minor in Business Administration from Maryville University of St. Louis in 2006. Prior to joining the Commission, I was employed by the Meramec Valley R-III school district from 2000-2008 as a Computer Teacher, Aide, and Substitute Teacher. I was also employed by the Longview Animal Nutrition Center from 2002-2005 as a Research Technician. My duties entailed nutritional testing, data entry, animal surgeries, vaccinations and basic care. Additionally, I was employed by Fitzgerald & Fitzgerald P.C. from 2005-2006. My duties entailed the preparation of personal and corporate income taxes as well as reviewing corporate accounting procedures.

**Case Summary
Of
Erin M. Carle**

Company	Case No.	Issues
Ameren UE	ER-2008-0318	Plant in Service, Depreciation Reserve, 900 Account Analyses, Advertising, Cash Working Capital, Vacation Payroll, Outside Services, Customer Advances, Dues and Donations, Interest on Customer Deposits, Leases, Materials and Supplies, Prepayments, Property Taxes, PSC Assessment, Rate Case Expense
RD Sewer	SR-2009-0226	Outside Services, Revenues, Vehicle Expense, Rent Exp., Payroll, Plant, PSC Assessment, Repairs, Sludge Hauling, Office Expense, Utility Bills, Accounting Schedules
Lakeland Heights Water	WR-2009-0227	Outside Services, Revenues, Vehicle Expense, Rent Exp., Payroll, Plant, PSC Assessment, Repairs, Sludge Hauling, Office Expense, Utility Bills, Meter Reads, Accounting Schedules
Whispering Hills Water	WR-2009-0228	Outside Services, Revenues, Vehicle Expense, Rent Exp., Payroll, Plant, PSC Assessment, Repairs, Sludge Hauling, Office Expense, Utility Bills, Meter Reads, Accounting Schedules
Oakbrier Water	WR-2009-0229	Outside Services, Revenues, Vehicle Expense, Rent Exp., Payroll, Plant, PSC Assessment, Repairs, Sludge Hauling, Office Expense, Utility Bills, Meter Reads, Accounting Schedules
Ameren UE	GT-2009-0413	ISRS Filing
Aqua Missouri	SR-2010-0026 SR-2010-0023 WR-2010-0025 WR-2010-0027	Outside Services, Transportation Exp., Payroll, Payroll Taxes, Employee Benefits, Leases, Accounting Schedules, Lab Testing, PSC Assessment, Property Tax, Supplies and Expenses, Tank Painting, General Insurance, Legal Expenses, Rate Case Exp., Chemicals, Expenses, Purchased Water, Maintenance
Aqua Missouri	SC-2010-0150 SC-2010-0152 WC-2010-0151 WC-2010-0153	Complaint Case

**Case Summary
Of
Erin M. Carle**

Company	Case No.	Issues
Laclede Gas Company	GR-2010-0171	Plant in Service, Depreciation Reserve, Incentive Compensation, Bonus/Equity Plan, PSC Assessment, Property Tax, Materials and Supplies, Payroll, Payroll Taxes, Other Employee Benefits, Advertising Exp., Dues and Donations, Leases, Rent Exp., Director's Fees, Capitalized Depreciation Expense, Amortization of Non-Depreciated Accounts
Ameren UE	GR-2010-0363	Injuries and Damages, Insurance Exp., Uncollectibles, Leases
Ameren Missouri	ER-2011-0028	Taum Sauk construction audit
TBJ Sewer Systems, Inc.	SR-2011-0182	Accounting Schedules, Staff Memorandum, Repairs and Maintenance, Electric Annualization, Revenues, Payroll, Insurance Exp., Plant, Depreciation Reserve, CIAC, Postage, PSC Assessment, Expenses
Laclede Gas Company	GO-2011-0361	ISRS Filing
Lincoln County Sewer & Water	WA-2012-0018 SA-2012-0019	Revenues, Accounting Exp., Billing Exp., Chemicals, Electric Annualization, Insurance, Misc. Revenues, Office Supplies, Postage, PSC Assessment, RE Taxes, Rate Case Expense, Utility Expense
Meramec Sewer Company	SR-2012-0309	Accounting Schedules, Accounting Exp., Customer Billing Exp., Office Supplies, Chemicals, Contract Services, Registration Fees, PSC Assessment, R.E. and Prop. Taxes, Outside Services, Payroll, Payroll Taxes, Postage, Rate Case Exp., Rent Exp., Sludge Hauling, Utility Expenses, Staff Memorandum
Ameren Missouri	ER-2012-0166	Dues and Donations, Corporate Franchise Tax, Cyber Security, Interest on Customer Deposits, Misc. Expense, Other Rate Base Items, Plant, Depreciation Reserve, Property Tax, Property Tax Refund, PSC/OPC Assessment
Laclede Gas Company	GO-2013-0352	ISRS Filing
Laclede Gas Company	GR-2013-0171	900 Account Analysis, Advertising, Corporate Franchise Tax, Dues and Donations, Environmental Expense, Injuries and Damages, Legal Fees, Lobbying, Promotional Giveaways, Property and Liability Insurance, TAS Accounts

Keith D. Foster

Educational and Employment Background and Credentials

I am currently employed as a Utility Regulatory Auditor IV for the Missouri Public Service Commission (Commission) within the Auditing Unit of the Regulatory Review Division, Utility Services Department. I was employed by the Commission in January 2008. After a 27-year career in the Information Systems (IS) industry, I returned to college and earned a Bachelor of Science degree in Business Administration, major in Accounting from Columbia College. I graduated summa cum laude in October 2007.

Prior to my work at the Commission, I was employed by IBM as a Project Manager from March 1991 to December 1998 and as a Project Executive from January 1999 until April 2002. In my capacity as Project Executive, I managed the development and implementation of welfare reform and other system enhancements, ongoing operations and maintenance activities, warranty support, application help desk, and system turnover for the Missouri Automated Child Support System (MACSS), a statewide integrated financial and case management system. I managed all budget, revenue, and profit objectives; developed and maintained detailed spreadsheets to prepare project budgets and revenue projections, to track and manage project costs and revenue daily, and to reconcile with corporate accounting.

I am a member of the Institute of Internal Auditors (IIA) as well as the Project Management Institute (PMI) including the local chapters. I was most recently a board member of the Mid-Missouri PMI chapter, serving two two-year terms as Vice-President of Financial Affairs. In addition, I am a PMI-certified Project Management Professional (PMP), a credential I have held since January 2000.

Keith D. Foster

As a Utility Regulatory Auditor, I perform rate audits and prepare miscellaneous filings as ordered by the Commission. In addition, I review all exhibits and testimony on assigned issues, develop accounting adjustments, and issue positions which are supported by workpapers and written testimony. For cases that do not require prepared testimony, I prepare Staff Recommendation Memorandums.

Other cases I have been assigned are listed below:

Case/Tracking Number	Company Name - Issue
QW-2008-0010	Tri-States Utility, Inc. - Property Taxes; Fuel & Electricity Expense; Telephone Expense; Rent Expense; Plant in Service; Depreciation Schedule, Reserve, Rates, and Expense; Transportation Expense; Chemicals Expense; Waste Disposal; Insurance Expense; Contractual Services; Bad Debt Expense; Miscellaneous Expenses
WR-2008-0311	Missouri-American Water Company - Advertising & Promotional Items; Dues and Donations; Cash Working Capital; Plant in Service; Depreciation Expense; Depreciation Reserve; Franchise Tax; Property Taxes; Fuel & Electricity Expense; Telephone Expense; Postage Expense; Purchased Water; Prepayments; Materials & Supplies; Customer Advances; Contributions in Aid of Construction (CIAC)
WR-2009-0098	Raytown Water Company - Materials & Supplies; Prepayments; Customer Deposits; Revenues; Insurance Expense; Utilities Expense; Directors Fees; Office Supplies Expense; Postage Expense; Laboratory Fees; Transportation Expenses; Rate Case Expense; Regulatory Commission Expense
GO-2009-0302	Missouri Gas Energy - Infrastructure Service Replacement Surcharge (ISRS)
SA-2009-0319	Mid-MO Sanitation, LLC – Certificate Case; All Revenue and Expenses; Plant in Service; Depreciation Reserve; Other Rate Base Items
GR-2009-0355	Missouri Gas Energy – Payroll, Payroll Taxes, 401(k), and Other Employee Benefit Costs; Incentive Compensation and Bonuses; Medical and Dental Expense; Bad Debt Expense; Rate Case Expense; Pension Expense; FAS106/OPEBs; Prepaid Pension Asset (PPA); Franchise

Keith D. Foster

	Tax Expense; Income Tax Expense
SR-2010-0095	Mid-MO Sanitation, LLC – Full Audit of All Revenue and Expenses; Plant in Service; Depreciation Reserve; Other Rate Base Items
ER-2010-0130	Empire District Electric – Fuel and Purchased Power; Fuel Inventories; Gas Stored Underground; Off-System Sales; Transmission Revenue; Payroll, Payroll Taxes, and 401(k) Benefit Costs; Incentive Compensation; Maintenance Normalization Adjustments
WR-2010-0304	Raytown Water Company – Revenues; Rate Case Expense; Regulatory Commission Expense; Utilities Expense; Purchased Water; Insurance Expense; Laboratory Fees; Communication Expense; Transportation Expense
GO-2011-0003	Missouri Gas Energy - Infrastructure Service Replacement Surcharge (ISRS)
ER-2011-0004	Empire District Electric – Fuel and Purchased Power; Fuel Inventories; Gas Stored Underground; Maintenance Normalization Adjustments; Miscellaneous Revenues (SO2 Allowances and Renewable Energy Credits); Operations and Maintenance (O&M) Expenses for Iatan 2 and Plum Point; Transmission Revenue; Entergy Transmission Contract; Reconciliation
WR-2011-0337	Missouri-American Water Company – Belleville Lab Allocations; Chemical Expense; Corporate and District Allocations; Fuel & Electricity Expense; Service Company Management Fees; Business Transformation Program; Reconciliation
WR-2012-0300	Empire District Electric (Water) – Plant-in-Service; Depreciation Reserve; Depreciation Expense; Materials and Supplies; Property Tax Expense; Customer Advances; Operations and Maintenance (O&M) Adjustment
WM-2012-0335	Moore Bend Water Company – Acquisition Case – Plant-in-Service; Depreciation Reserve; Depreciation Expense
ER-2012-0345	Empire District Electric – Fuel and Purchased Power; Fuel Inventories; Gas Stored Underground; Maintenance Normalization Adjustments (Operations and Maintenance Expense); Operations and Maintenance (O&M) Expense Trackers for Iatan 2, Iatan Common, and Plum Point; Entergy Transmission Contract; Reconciliation

Case No. WR-2013-0461

Education and Employment background

James A. Merciel, Jr., P.E.

My name is James A. Merciel, Jr. I am employed by the Missouri Public Service Commission (Commission) as a Utility Regulatory Engineering Supervisor, in the Water and Sewer Unit.

I graduated from the University of Missouri at Rolla in 1976 with a Bachelor of Science degree in Civil Engineering. I am a Registered Professional Engineer in the State of Missouri. I worked for a construction company in 1976 as an engineer and surveyor, and have worked for the Commission in the Water and Sewer Unit since 1977.

My responsibilities include reviewing information and making recommendations with regard to certifications for new water and sewer utilities, sales of utility systems, formal complaint cases, and technical issues associated with water and sewer utility rate cases. In addition to formal case work, I handle informal customer complaints and other inquiries that are of a technical nature, conduct inspections and evaluations of water and sewer utility systems, and informally assist water and sewer utility companies with respect to day-to-day operations, planning, and customer service issues. In the past, I have supervised engineers and technicians in the Water and Sewer Unit working on the above-described type of case work and informal matters. In the context of my position with Staff, I served on the American Water Works Association Small Systems Committee for three years, and have served on the National Association of Regulatory Utility Commissioners Staff Subcommittee on Water for approximately the past seventeen (17) years.

Cases with Testimony by James A. Merciel, Jr. (not all inclusive)
November 2013

Algonquin Water Resources

WR-2006-0425 – plant investment and capacity inclusion in rates

Aqua Missouri, Inc.

SC-2007-0044

Big Island – Folsom Ridge

WO-2007-0277 – jurisdiction, possible regulation

Bill Gold Investments, Inc.

WC-93-276 (11/5/93) – Receivership case

Blue Lagoon, LLC

SO-2008-0358 – possible regulation of utility company

Camelot Utility Co.

WA-89-1

Capital City Water Co.

WR-94-297

WR-90-118

WO-89-76 – plant capacity study

WR-88-215

WR-83-165.

Davis Water Company

WC-87-125 and WC-88-288 - quality of service, lack of needed upgrades Along
with a proceeding in the Circuit Court in Wayne County approx 1988

Environmental Utilities, LLC

WA-2002-65 (11/2001) Certificate case

Finley Valley Water Company / Public Funding Corporation, City of Ozark

WM-95-423 – Sale of regulated utility assets

Gascony Water Company, Inc.

WA-97-510

House Springs Sewer Co.

SC-2008-0409

Lake Region Water and Sewer Co.

SR-2010-0110 and WR-2010-0111 – availability charges

Lake Saint Louis Sewer Co.

SR-78-142

SA-78-147 - expansion of service area

SC-78-257 - The Nine-Twelve Investment Co., et al Oak Bluff Preserve vs.

Lake Saint Louis Sewer co, regarding method of providing service.

SO-81-55 and Circuit Court in St. Charles County - alleged improper

disconnection of service along with injunction., approx 1980 or 1981

Lincoln County Sewer & Water, LLC

SR-2013-0321 and WR-2013-0322 – plant capacity disallowance and AMR
metering

Merriam Woods Water Company

WC-91-18 and WC-91-268 – quality of service

Mill Creek Sewer System, Inc.

Cases with Testimony by James A. Merciel, Jr. (not all inclusive)
November 2013

Proceeding by MO Attorney General in Circuit court in St. Louis County, Cause
No. 611261, 1998 DNR water pollution violations
Miller County Water Authority
WC-95-252 and Circuit Court in Camden County approx 1995 - Complaint by
Staff regarding operating without a certificate
Missouri American Water Company
SA-2012-0066 (Saddlebrooke)
WR-2011-0337
WR-2008-0311 and SR-2008-0312
WR-2007-0216
WC-2006-0345 - Dione C. Joyner, Complainant (service line maintenance)
WR-2003-0500
WR-2000-281
WR-97-237/SR-97-206
WT-97-227 / WA-97-45 / WC-96-441 - Complaint by Water District 2 regarding
customers outside service area, and service area expansion
WA-97-46 -- certificate case for St. Joseph wellfield
WR-95-205
WR-95-174
WR-93-212
WR-91-211
WR-89-265
WR-87-177
WR-85-16
Missouri Cities Water Company
WR-95-172/SR-95-173
WR-92-207
Proceeding in Circuit Court in Audrain County, CV192-40SCC approx 1992 city
of Mexico attempted condemnation of water system
WR-91-172/SR-91-174
WR-90-236
WR-89-178/SR-89-179
WC-88-280 -- William J. Fox d/b/a Fox Plumbing vs MO Cities,
service line/main extension matter
WR-86-111/SR-86-112
WC-86-20 -- Mexico Doctor's Park, main extension
WR-85-157
WR-84-51
WR-83-15/SR-83-14
North Oak Sewer District, Inc.
SR-2004-0306
Osage Water Co.
WA-99-256 (8/5/99) - Lakeview Beach certificate case
WC-2003-0134 (10/31/02) - Receivership case

Cases with Testimony by James A. Merciel, Jr. (not all inclusive)
November 2013

Raytown Water Company

WR-92-85 / WR-92-88

WR-94-211

Southwest Village Water Company

WO-89-187 – quality of service

WC-89-138 (included testimony in Circuit Court in Greene County 1989)

St. Louis County Sewer Co.

SC-83-255 – complaints about stormwater inflow/infiltration

St. Louis County Water Company

WR-97-382

WR-96-263

WR-95-145

WR-94-166

WR-93-204

WR-91-361

WR-88-5

WR-87-2

WR-85-243

WC-84-29 – Dewey Eberhardt vs St. Louis County Water Co., fire protection

WR-83-264

WR-82-249

WC-79-251-Natural Bridge Development Corp vs. St. Louis County Water Co.,
meter accuracy/testing

Stoddard County Sewer Co.

SO-2008-0289 – receivership, transfer, etc.

Suburban Water and Sewer Co.

Injunction hearing, Circuit Court in Boone County 07BA-CV02632, June 2007

WC-2007-0452

WC-84-19 – service issues

United Water Missouri

WR-99-326

Villa Park Heights Water Co.

WA-86-58

Warren County Water and Sewer Co. -

Circuit court case in Warren County CV597-134CC, September 1997 dispute
with homeowners over a lot proposed to be a tank site

WC-2002-155 / SC-2002-260 - March 2002 Receivership case filed by the
Office of the Public Counsel

West Elm Place Corporation

Circuit court lawsuit case in Jefferson County, approx 1988 Customer's lawsuit
for damage from sewage backup

Educational and Employment Background and Credentials

Of

Arthur W. Rice PE

I am currently employed as a Utility Regulatory Engineer I for the Missouri Public Service Commission (Commission). I was employed by the Commission in April of 2008. Currently a Staff Expert on Utility Company Regulatory Depreciation for water, sewer, gas distribution, and electrical companies.

I received a Bachelors of Science in Chemical Engineering from the University of Massachusetts in 1979. I am a licensed professional engineer in the state of Missouri, license No 028012.

From 1998 to 2008 worked as a self employed business owner. I established Arthur Rice Contracting LLC and developed a residential subdivision on 270 Acres in Callaway County Missouri., obtained the appropriate permits, installed infrastructure and built residential homes. Thirty seven families have moved into the development resulting in approximately \$8,000,000 added to the Callaway County property tax base. I continue to be the President of the Homeowner's association, operate the subdivision sewer company, and maintain the subdivision roads.

From 1979 to 1998 I was employed by Monsanto Company and then Air Products and Chemicals as an engineer and project manager in an industrial equipment manufacture and sales division. I was assigned progressively responsible assignments in equipment and process development, plant operations and plant construction. The processes revolved around manufacturing, installation and operation of gas separation equipment for oil refineries, chemical plants and natural gas processing.

From 1972 to 1977 I was employed by General Electric Company as a tool and die maker apprentice. The facility I worked at produced power, distribution and pole transformers, plus electrical switch gear, surge arrestors and electrical connectors.

From 1966 to 1972 I was trained and employed by the U.S. Navy as a nuclear propulsion plant operator, plant water chemist, and radiological controls specialist. Qualified in submarines and served 3 ½ years on a nuclear submarine. I served the last six months of my tour of duty as an engine room supervisor on a large ammunitions transport ship which was powered by oil fired boilers.

**CASE PARTICIPATION of
Arthur W. Rice, PE**

I have filed the following testimony at the Missouri Public Service Commission related to depreciation.

Case ER-2010-0036, AmerenUE

1. Direct testimony as part of the Staff Cost of Service report on 12/08/2010
2. Rebuttal testimony on 2/11/2010
3. Surrebuttal testimony on 3/05/2010

Case ER-2010-0355, Kansas City Power and Light Company

1. Direct testimony as part of the Staff Cost of Service report on 11/10/2010
2. Rebuttal testimony on 12/08/2010
3. Surrebuttal testimony on 1/05/2011

Case ER-2010-0356, KCPL Greater Missouri Operations Company

1. Direct testimony as part of the Staff Cost of Service report on 11/17/2010
2. Rebuttal testimony on 12/15/2010
3. Surrebuttal testimony on 1/12/2011

Case/Tracking Number	Company Name - Issue
SR-2008-0388	WPC Sewer, Depreciation Review
SR-2008-0389	West 16Th Street, Depreciation Review
WA-2008-0403	Seges Mobile Home Park, Depreciation Assignment
WR-2009-0098	Raytown Water Company, Depreciation Review
SR-2009-0144	Cannon Home Assoc. Depreciation Review
WR-2009-0145	Peaceful Valley Service Co., Depreciation Review
SR-2009-0146	Peaceful Valley Service Co., Depreciation Review
WR-2009-0218	Terre Du Lac Utilities Corp., Depreciation Review
SR-2009-0219	Terre Du Lac Utilities Corp., Depreciation Review
WR-2009-0227	Lakeland Heights Water, Depreciation Review
WR-2009-0228	Whispering Hills Water, Depreciation Review
WR-2009-0229	Oakbrier Water Company, Depreciation Review
SR-2009-0226	R. D. Sewer Company, Depreciation Review
GA-2009-0264	Missouri Gas Utilities, Depreciation Assignment
WA-2009-0316	Highway H Utilities, Depreciation Assignment
SA-2009-0317	Highway H Utilities, Depreciation Assignment

Case/Tracking Number	Company Name - Issue
SA-2009-0319	Mid Mo Sanitation LLC, Depreciation Assignment
SR-2009-0298	Port Perry Service Company, Depreciation Review
WR-2009-0299	Port Perry Service Company, Depreciation Review
SA-2009-0401	Seges Mobile Home Park, Depreciation Assignment
SR-2009-0392	Highway H Utilities, Depreciation Review
WR2009-0393	Highway H Utilities, Depreciation Review
WR-2009-0418	Gladlo Water and Sewer, Depreciation Review
SR-2009-0419	Gladlo Water and Sewer, Depreciation Review
WR-2009-0395	Noel Water Co., Depreciation Review
ER-2010-0036	AmerenUE, Staff Expert for Depreciation
SR-2010-0095	Mid Mo Sanitation LLC, Depreciation Review
WR-2010-0139	Valley Woods Water Company, Depreciation Review
SR-2010-0140	Valley Woods Water Co., Depreciation Review
WA-2010-0281	Holtgrewe Farms Water, Depreciation Assignment
SA-2010-0282	Holtgrewe Farms Sewer, Depreciation Assignment
WR-2010-0304	Raytown Water Company, Depreciation Review
WR-2010-0309	Middlefork Water, Depreciation Review
ER-2010-0355	KCP&L - Staff Expert for Depreciation
ER-2010-0356	KCP&L - GMO, Staff Expert for Depreciation
WR-2011-0337	Missouri American Water - Staff Expert For Depreciation
SR-2011-0338	Missouri American Water - Staff Expert For Depreciation
EO-2912-0340	KCP&L - Depreciation Authority Order
EO-2912-0354	KCP&L - Transmission Line Sale
SA-2012-0362	Emerald Pointe CCN -Staff Expert for Depreciation
WR-2012-0405	Raytown Water Company, Staff Expert for Depreciation
ER-2012-0174	KCP&L - Staff Expert for Depreciation
ER-2012-0175	KCP&L GMO - Staff Expert for Depreciation
WR-2013-0259	Gladlo - Staff Expert for Depreciation
SR-2013-0258	Gladlo - Staff Expert for Depreciation
WR-2013-0326	Woodland Manor - Staff Expert for Depreciation
SR-2013-0435	Rouge Creek Utilities - Staff Expert for Depreciation
WR-2013-0436	Rouge Creek Utilities - Staff Expert for Depreciation
WO-2013-0403	Tri-State Utilities sale to MAWC - Staff Expert for Depreciation

Ashley R. Sarver
Utility Regulatory Auditor

Present Position:

I am a Utility Regulatory Auditor in the Auditing Unit, of the Utility Services Department of the Missouri Public Service Commission. I have been employed by the Missouri Public Service Commission since July 2013.

Education Background and Work Experience:

I received a Bachelor of Science degree in Accounting from Missouri State University, in Springfield, MO in July 2009. In earning this degree I completed numerous core Accounting and business classes. Prior to joining the Commission, I was employed by the State of Missouri - Department of Corrections from 2009 to 2013 as an Auditor. My duties entailed compiling and reviewing auditing materials from the institutions. After the audit, I would make recommendations according to policy and procedures, internal control, and other changes to improve the functions of the institution to the Warden, Deputy Division Director, Inspector General, and Deputy Director verbally and in writing.

MISSOURI PUBLIC SERVICE COMMISSION

STAFF REPORT
COST OF SERVICE

APPENDIX 2

Support for Staff
Cost of
Capital Recommendations

LAKE REGION WATER & SEWER COMPANY

CASE NO. WR-2013-0461

Jefferson City, Missouri
November 2013

Small Utility

Return on Equity (ROE)/Rate of Return (ROR)

Methodology

Prepared by

**Financial Analysis Department
(Shana Atkinson, Zephania Marevangapo and David Murray)
Utility Services Division
Missouri Public Service Commission
September 2010
(updated in August 2011)**

Financial Analysis Small Water and Sewer Return on Equity (ROE) Determination

Although the Financial Analysis (FA) Department's small water and sewer (W&S) rate case procedure had been premised on adding a range of risk premiums to the FA Department's cost of equity estimate in the most recent Missouri-American rate case, the FA Department decided to revise its generic procedure to allow cost of equity estimates for small water and sewer companies to be more responsive, current and specific than its old procedure. The FA Department's new procedure is based on a fairly generic risk premium methodology. Staff will apply a "standard" risk premium to a reasonable estimate of the current cost of debt for the subject company to arrive at an estimated cost of equity. Because small water and sewer companies typically don't issue debt that is actively traded, the FA Department must rely on its estimate of the subject company's credit rating and then determine a recent average cost of utility debt for this rating based on data the FA Department receives from its current source for utility debt yields, BondsOnline. The Department then adds the "standard" risk premium to this current cost of debt to estimate the cost of common equity. These capital costs are then applied to the appropriate weights in the capital structure to estimate a fair and reasonable rate of return.

Recommended Formula:

Recommended Return on Common Equity = Reuters Public Utility Bond Yield average of the past three months from BondsOnline + 3-4% risk premium.

This formula is based on the bond yield risk premium method for estimating the cost of equity. According to the textbook *Analysis of Equity Investments: Valuation* (2002) by John D. Stowe, Thomas R. Robinson, Jerald E. Pinto and Dennis W. McLeavey (used as part of the curriculum in the Chartered Financial Analyst Program), a typical risk premium added to the yield-to-maturity (YTM) of a company's long-term debt is in the 3 to 4 percent range. For purposes of estimating the cost of common equity for Missouri's larger electric, gas and water utilities, FA Staff believes at least the low end of this risk premium range is appropriate considering publicly-traded utility stocks exhibit investment characteristics very similar to bonds. Consequently, the low end of the risk premium estimate will be considered for companies that are not privately held or are subsidiaries of publicly-traded parent companies. However, the high end of the risk premium estimate may be used for privately owned small water and sewer companies that are not considered to be marketable from an acquisition standpoint.

Estimated Bond Rating:

In order to estimate the cost of debt for the subject company (assuming there is no current reasonable yield on the subject company's cost of debt), the FA Department must estimate the credit rating of the subject company. The FA Department's estimate of the subject company's credit rating will be restricted to credit ratings within the range of 'AAA' to 'B'. Because most regulated small water and sewer companies in Missouri do not issue debt either directly or indirectly (through a parent company), they do not have a published credit rating. Therefore, in such cases the FA Department will use the May

27, 2009 Standard & Poor's ratings matrix as a guide to estimate the water and sewer utility's credit rating. This guide allows the FA Department to estimate a credit rating based on an assessment of the business and financial risks of the small water and sewer utility. Based on S&P data available for the water companies it rates, these companies have a financial risk profile ("FRP") no lower than "Aggressive" and business risk profiles ("BRP") of "Excellent."¹ Although S&P assigns an "Excellent" BRP to all of the water and sewer companies it rates, Staff believes that due to the fact that some small water and sewer companies have trouble receiving debt financing, this should be considered in assigning BRPs for purposes of estimating the cost of equity for small water and sewer companies. Staff will determine the BRP of a company by assessing the company's access or potential access to debt capital. If a company proves to Staff that they cannot obtain a loan or the company can obtain a loan but has to pledge personal assets in order to do so, then Staff would classify the company's BRP as "Satisfactory." If the company can obtain a commercial loan without having to pledge personal assets, then Staff would classify the company as having a "Strong" BRP. If a company or its parent can issue debt directly to capital providers, then Staff would classify the company as having an "Excellent" BRP. The FRP of a company will be estimated by determining the company's Debt/Capital ratio and comparing it to the following S&P's benchmark ratios:

Financial Risk Indicative Ratios (Corporates)

	Debt/Capital (%)
Minimal	less than 25
Modest	25-35
Intermediate	35-45
Significant	45-50
Aggressive	50-60
Highly Leveraged	greater than 60

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S&P's Business and Financial Risk Profile Matrix states that the ratings indicated in each cell of the matrix are the midpoints of a range of likely rating possibilities. This range would ordinarily span one notch above and below the indicated rating. For example, an "Aggressive" FRP and a "Strong" BRP is indicative of a 'BB' rating according to the matrix. The 'BB' rating is the midpoint, meaning the suggested range would be 'BB+' to 'BB-'. Staff will determine which indicative rating to use by evaluating the Debt/Capital ratio. For example, an "Aggressive" FRP has a Debt/Capital ratio of 50%-60% according to the financial risk indicative ratios. Staff would divide the 50%-60% into thirds to represent 3 notches in the range. Therefore, using an "Aggressive" FRP and a "Strong"

¹ "Excellent" is considered to be the least risky of all of S&P's business risk profiles.

² S&P RatingsDirect, May 27, 2009, "Criteria Methodology: Business Risk/Financial Risk Matrix Expanded" (Attachment A).

BRP as an example, the midpoint of 'BB' may be represented by a Debt/Capital ratio of 53.33%-56.66%, 'BB+' may be represented by a Debt/Capital ratio of 50.00%-53.32% and 'BB-' may be represented by a Debt/Capital ratio of 56.67% - 60%.

Capital Structure Determination:

In situations in which a small water and sewer utility has debt capital in excess of 75%, the FA Department believes it is appropriate to use a hypothetical capital structure that limits debt to 75% of total capital. Although it could be argued that Staff should also use a hypothetical capital structure if a company's capital structure is not cost efficient due to a high equity ratio, the FA Department decided not to limit the amount of equity in the capital structure. If a company shows that its capital structure consists of more than 75% debt, then a hypothetical capital structure of 75% debt and 25% equity will be assumed. For all situations wherein a small water and sewer company has debt capital less than 75%, the company's actual capital structure will be used in determining the company's ROR. Assuming the company's current cost of debt is reasonable for a hypothetical capital structure of 75% debt and 25% equity, Staff may use this current cost of debt. If the company's current cost of debt is unreasonable due to over use of leverage, Staff may use a hypothetical cost of debt.

The FA Department will rely on the company's financial statements to estimate the ratemaking capital structure if these financial statements provide an accurate and reliable representation of the capital that supports the company's investment in the utility's assets. However, if a company's rate base is not consistent with the carrying value of the assets in the financial statements, Staff will impute the rate base number as plant and subtract the amount of debt from rate base to estimate the amount of equity in the capital structure.

Cost of Common Equity:

The Department recognizes that the estimation of the cost of common equity for a utility is not an exact science. Therefore, the Department will recommend a reasonable ROE range based on the specific circumstances of each case. For example, absent specific circumstances, the Department usually recommends an ROE range of no more than 100 basis points in major rate cases. Staff may recommend the higher end of its range if the company is privately held and not marketable. Staff may recommend the low end of its range if the water and sewer operations are owned by a larger parent company that is publicly-traded or the company is considered to be marketable from an acquisition perspective.

Disclaimer:

This procedure may be subject to change at any time based on Staff's research on other approaches to address small water and sewer ROE recommendations and the availability

of additional and/or better resources that may allow for improvement to the determination of appropriate rates of return for small water and sewer.

Examples:

75.00% to 100% Equity: According to Table 1 in the May 27, 2009 S&P report, this is indicative of a "Minimal" FRP. Depending on the BRP, the benchmark credit rating could be anywhere from 'AAA' to 'A-'.

65.00% to 74.99% Equity: According to Table 1 in the May 27, 2009 S&P report, this is indicative of a "Modest" FRP. Depending on the BRP, the benchmark credit rating could be anywhere from 'AA' to 'BBB+'.

55.00% to 64.99% Equity: According to Table 1 in the May 27, 2009 S&P report, this is indicative of a "Intermediate" FRP. Depending on the BRP, the benchmark credit rating could be anywhere from 'A' to 'BBB'.

50.00% to 54.99% Equity: According to Table 1 in the May 27, 2009 S&P report, this is indicative of a "Significant" FRP. Depending on the BRP, the benchmark credit rating could be anywhere from 'A-' to 'BB+'.

40.00% to 49.99% Equity: According to Table 1 in the May 27, 2009 S&P report, this is indicative of a "Aggressive" FRP. Depending on the BRP, the benchmark credit rating could be anywhere from 'BBB' to 'BB-'.

25.00% to 39.99% Equity: According to Table 1 in the May 27, 2009 S&P report, this is indicative of a "Highly Leveraged" FRP. Depending on the BRP, the benchmark credit rating could be anywhere from 'BB-' to 'B+'.

Case Example for WACC Recommendation

Test year of Dec. 31, 200X for this case indicates the following regarding capital structure:

XYZ Sewer Systems, Inc
12/31/200X

Common Stock	\$47,056	40%
Debt	\$70,584	60%
Total Capital	\$117,640	100%

Most of the time the amount of common stock will be broken down by par value of common stock, other paid in capital and retained earnings. One should make sure to include all components of common equity in this balance.

Debt Issuance	Amount	Cost	Percent	Weighted Cost of Debt
N/P United Bank of Union	\$44,007.08	6.25%	62.34%	3.90%
N/P Jane Doe Corp.	\$23,276.92	5.50%	32.98%	1.81%
N/P Doe Construction, Inc.	<u>\$ 3,300.00</u>	5.50%	<u>4.68%</u>	<u>0.26%</u>
	\$70,584.00		100.00%	5.97%

As you can see, the weighted cost of debt is figured the same as the overall weighted cost of capital. Based on the S&P ratings matrix the company has an "Aggressive" FRP and based on the company's ability to obtain a commercial loan from United Bank of Union, the BRP is considered "Strong". Based on Staff's determination of an "Aggressive" FRP and a "Strong" BRP, XYZ Sewer Systems credit profile is indicative of a 'BB-' rating.

Now that we have an estimated credit rating we need to determine a current yield on debt of the same rating. Staff currently obtains such data through its subscription to BondsOnline. Because yields can fluctuate from month-to-month, Staff believes it is appropriate to use a 3-month average yield. Staff uses 30-year utility bond yields because it is assumed that utility stock investors' required returns are closely tied to required returns for long-term bond investments.

Although the following example is only based on the debt yield for one month, May 2011, simply use the same methodology for the other two months and average the 3 yields to determine the appropriate reference yield.

Based on the methodology discussed above, the risk premium would be added to the reference yield consistent with a 'BB-' rating for a 30-year bond, which is $4.29\% + 3.71\% = 8.00\%$ (see table below). Because the company is a privately-owned enterprise that doesn't issue its own debt or its parent company doesn't issue debt, you add a 4% risk premium to arrive at a cost of equity recommendation of 12%.

Reuters Corporate Spreads for Utilities
May 2011 Average

Rating	1 yr	2 yr	3 yr	5 yr	7 yr	10 yr	30 yr
Aaa/AAA	13	20	22	27	29	36	39
Aa1/AA+	22	28	32	37	69	74	79
Aa2/AA	27	32	37	47	77	79	84
Aa3/AA-	28	39	53	58	85	90	95
A1/A+	32	42	56	77	93	103	114
A2/A	37	47	62	87	104	109	116
A3/A-	47	57	82	97	114	119	129
Baa1/BB	77	82	97	122	119	124	159
B+							
Baa2/BB	95	102	122	142	149	154	179
B							
Baa3/BB	97	117	127	147	159	164	194
B-							
Ba1/BB+	101	121	131	151	161	181	216
Ba2/BB	121	146	161	191	201	231	271
Ba3/BB-	131	156	166	196	231	351	371
B1/B+	166	171	191	271	286	381	441
B2/B	171	201	296	371	421	511	641
B3/B-	191	346	471	571	621	676	761
Caa/CCC	366	471	572	636	646	761	861
+							
US	0.19	0.56	0.94	1.84	2.51	3.17	4.29
Treasury Yield							

XYZ Sewer Systems, Inc.
Cost of Capital as of 12/31/200X

Capital Component	Amount	%Capital	Cost	Weighted Cost
Common equity	\$ 47,056	40.00%	12.00%	4.80%
Long-term debt	<u>\$ 70,584</u>	<u>60.00%</u>	5.97%	<u>3.58%</u>
	\$117,640	100.00%		8.38%

LAKE REGION WATER and SEWER COMPANY
CASE NO. WR-2013-0461

**Weighted Cost of Capital as of June 30, 2013
for Lake Region Water & Sewer Company**

Capital Component	Amount	Percentage of Capital	Embedded Cost	13.89%
Common Stock Equity	\$658,891.50 *	25.00%	-----	3.47%
Long-Term Debt	\$1,976,674.50 *	75.00%	5.00%	3.75%
Total Capital	<u>\$2,635,566.00</u>	<u>100.00%</u>		<u>7.22%</u>

Sources:

Response to Staff DR Nos. 0021, 0064 and 0070

*The actual Long-Term Debt amount for Lake Region is \$4,246,731.04. The numbers shown reflect a hypothetical capital structure.

May 27, 2009

Criteria | Corporates | General:
Criteria Methodology: Business
Risk/Financial Risk Matrix
Expanded

Primary Credit Analysts:

Solomon B Samson, New York (1) 212-438-7653; sol_samson@standardandpoors.com

Emmanuel Dubois-Pelerin, Paris (33) 1-4420-6673; emmanuel_dubois-pelerin@standardandpoors.com

Table Of Contents

Business Risk/Financial Risk Framework

Updated Matrix

Financial Benchmarks

How To Use The Matrix--And Its Limitations

Related Criteria And Research

Criteria Methodology: Business Risk/Financial Risk Matrix Expanded

(Editor's Note: We are republishing this criteria following our periodic review completed on Dec. 8, 2010. In the original version of this article published on May 26, 2009, certain rating outcomes in the table 1 matrix were missated. A corrected version follows.

Table 1 supersedes tables 1, 2, and 3 in the following articles:

- "Business And Financial Risks In The Global Telecommunication, Cable, And Satellite Broadcast Industry," published Jan. 27, 2009;
- "Business And Financial Risks In The U.S. For-Profit Health Care Facilities Industry," published Jan. 21, 2009;
- "Business And Financial Risks In The Health Care Equipment And Supply Industry," published Feb. 6, 2009;
- "Methodology And Assumptions On Risks In The Packaging Industry," published Dec. 4, 2008;
- "Business And Financial Risks In The Investor-Owned Utilities Industry," published Nov. 26, 2008;
- "Business And Financial Risks In The Global Building Products And Materials Industry," published Nov. 19, 2008;
- "Business And Financial Risks In The Commodity And Specialty Chemical Industry," published Nov. 20, 2008;
- "Business And Financial Risks In The Oil And Gas Exploration And Production Industry," published Nov. 10, 2008;
- "Business And Financial Risks In The U.S. Trucking Industry," published Nov. 4, 2008;
- "Business And Financial Risks In The U.S. Gaming Industry," published Sept. 25, 2008;
- "Business And Financial Risks In The Retail Industry," published Sept. 18, 2008; and
- "Business And Financial Risks In The Restaurant Industry," published Dec. 4, 2008.

Table 1 also supersedes only table 1 in "Business And Financial Risks In The Global High Technology Industry," published Sept. 18, 2008.)

Standard & Poor's Ratings Services is refining its methodology for corporate ratings related to its business risk/financial risk matrix, which we published as part of "2008 Corporate Ratings Criteria" on April 15, 2008, on RatingsDirect at www.ratingsdirect.com and Standard & Poor's Web site at www.standardandpoors.com.

This article amends and supersedes the criteria as published in Corporate Ratings Criteria, page 21, and the articles listed in the "Related Articles" section at the end of this report.

This article is part of a broad series of measures announced last year to enhance our governance, analytics,

dissemination of information, and investor education initiatives. These initiatives are aimed at augmenting our independence, strengthening the rating process, and increasing our transparency to better serve the global markets.

We introduced the business risk/financial risk matrix four years ago. The relationships depicted in the matrix represent an essential element of our corporate analytical methodology.

We are now expanding the matrix, by adding one category to both business and financial risks (see table 1). As a result, the matrix allows for greater differentiation regarding companies rated lower than investment grade (i.e., 'BB' and below).

Table 1

Business And Financial Risk/Profile Matrix						
Business Risk Profile	--Financial Risk Profile--					
	Minimal	Modest	Intermediate	Significant	Aggressive	Highly Leveraged
Excellent	AAA	AA	A	A-	BBB	--
Strong	AA	A	A-	BBB	BB	BB-
Satisfactory	A-	BBB+	BBB	BB+	BB-	B+
Fair	--	BBB-	BB+	BB	BB-	B
Weak	--	--	BB	BB-	B+	B-
Vulnerable	--	--	--	B+	B	CCC+

These rating outcomes are shown for guidance purposes only. Actual rating should be within one notch of indicated rating outcomes.

The rating outcomes refer to issuer credit ratings. The ratings indicated in each cell of the matrix are the midpoints of a range of likely rating possibilities. This range would ordinarily span one notch above and below the indicated rating.

Business Risk/Financial Risk Framework

Our corporate analytical methodology organizes the analytical process according to a common framework, and it divides the task into several categories so that all salient issues are considered. The first categories involve fundamental business analysis; the financial analysis categories follow.

Our ratings analysis starts with the assessment of the business and competitive profile of the company. Two companies with identical financial metrics can be rated very differently, to the extent that their business challenges and prospects differ. The categories underlying our business and financial risk assessments are:

Business risk

- Country risk
- Industry risk
- Competitive position
- Profitability/Peer group comparisons

Financial risk

- Accounting
- Financial governance and policies/risk tolerance
- Cash flow adequacy

- Capital structure/asset protection
- Liquidity/short-term factors

We do not have any predetermined weights for these categories. The significance of specific factors varies from situation to situation.

Updated Matrix

We developed the matrix to make explicit the rating outcomes that are typical for various business risk/financial risk combinations. It illustrates the relationship of business and financial risk profiles to the issuer credit rating.

We tend to weight business risk slightly more than financial risk when differentiating among investment-grade ratings. Conversely, we place slightly more weight on financial risk for speculative-grade issuers (see table 1, again). There also is a subtle compounding effect when both business risk and financial risk are aligned at extremes (i.e., excellent/minimal and vulnerable/highly leveraged.)

The new, more granular version of the matrix represents a refinement—not any change in rating criteria or standards—and, consequently, holds no implications for any changes to existing ratings. However, the expanded matrix should enhance the transparency of the analytical process.

Financial Benchmarks

Table 2

Financial Risk Indicative Ratios (Corporates)			
	FFO/Debt (%)	Debt/EBITDA (x)	Debt/Capital (%)
Minimal	greater than 60	less than 1.5	less than 25
Modest	45-60	1.5-2	25-35
Intermediate	30-45	2-3	35-45
Significant	20-30	3-4	45-50
Aggressive	12-20	4-5	50-60
Highly Leveraged	less than 12	greater than 5	greater than 60

How To Use The Matrix--And Its Limitations

The rating matrix indicative outcomes are what we typically observe—but are not meant to be precise indications or guarantees of future rating opinions. Positive and negative nuances in our analysis may lead to a notch higher or lower than the outcomes indicated in the various cells of the matrix.

In certain situations there may be specific, overarching risks that are outside the standard framework, e.g., a liquidity crisis, major litigation, or large acquisition. This often is the case regarding credits at the lowest end of the credit spectrum—i.e., the 'CCC' category and lower. These ratings, by definition, reflect some impending crisis or acute vulnerability, and the balanced approach that underlies the matrix framework just does not lend itself to such situations.

Similarly, some matrix cells are blank because the underlying combinations are highly unusual—and presumably

MISSOURI PUBLIC SERVICE COMMISSION

STAFF REPORT
COST OF SERVICE

APPENDIX 3

Other Staff Schedules

LAKE REGION WATER & SEWER COMPANY

CASE NO. WR-2013-0461

Jefferson City, Missouri
November 2013

CUSTOMERS				
	Horseshoe Bend Sewer	Shawnee Bend Sewer	Water	Total
Number of Customers at 6/30/2013	243	632	654	1,529
Total Lake Region Customers Allocation	15.90%	41.30%	42.80%	1,529
Sewer Customers Allocation	27.77%	72.23%		875
SB Sewer and Water Customer Allocation		49.14%	50.86%	1,286
Sewer/Water Customers Allocation		57.23%	42.77%	1,529
HB/SB Customers Allocation	15.89%	84.11%		1,529

RATE REVENUE				
	Horseshoe Bend Sewer	Shawnee Bend Sewer	Water	Total
Residential Revenue	\$79,353.00	\$269,253.60	\$185,973.85	\$534,580.45
Commercial Revenue	\$365,782.56	\$24,808.19	\$30,582.87	\$421,173.62
Miscellaneous Revenue	\$1,560.00	\$0.00	\$6,463.00	\$8,023.00
Total Staff Revenue	\$446,695.56	\$294,061.79	\$223,019.72	\$963,777.07
Total Lake Region Revenue Allocation	46.35%	30.51%	23.14%	\$963,777.07
Sewer Revenue Allocation	60.30%	39.70%		\$740,757.35
SB Sewer and Water Revenue Allocation		56.87%	43.13%	\$517,081.51
Sewer/Water Revenue Allocation		76.86%	23.14%	\$963,777.07
HB/SB Revenue Allocation	46.35%	53.65%		\$963,777.07

BLENDING REVENUES AND CUSTOMER COUNT - SEWER ONLY

Horseshoe Bend	44.04%
Shawnee Bend	55.96%
	100.00%

PAYROLL (PAY ONLY)				
	Horseshoe Bend Sewer	Shawnee Bend Sewer	Water	Total
Total Staff Payroll	\$60,208.91	\$60,029.72	\$37,448.11	\$157,686.74
Total Lake Region Payroll Allocation	38.18%	38.07%	23.75%	\$157,686.74
Sewer Payroll Allocation	50.07%	49.93%		\$120,238.63
SB Sewer and Water Payroll Allocation		61.58%	38.42%	\$97,477.83
Sewer/Water Payroll Allocation		76.25%	23.75%	\$157,686.74
HB/SB Payroll Allocation	38.18%	61.82%		\$157,686.74

PLANT-IN-SERVICE				
	Horseshoe Bend Sewer	Shawnee Bend Sewer	Water	Total
Total Plant-in-Service at 6/30/2013	\$2,124,399	\$4,193,337	\$4,123,633	\$10,441,369
Total Lake Region Plan Allocation	20.35%	40.16%	39.49%	\$10,441,369
Sewer Plant Allocation	33.63%	66.37%		\$6,317,736
SB Sewer and Water Plant Allocation		50.42%	49.58%	\$8,316,970
Sewer/Water Water Allocation		60.51%	39.49%	\$10,441,369
HB/SB Plant Allocation	20.35%	79.65%		\$10,441,369

Lake Region Water & Sewer Company

SCHEDULE of DEPRECIATION RATES

(WATER Class A)

WR-2013-0461

ACCOUNT NUMBER	ACCOUNT DESCRIPTION	DEPRECIATION RATE	AVERAGE SERVICE LIFE (YEARS)	NET SALVAGE
Source of Supply				
311	Structures & Improvements	2.5%	44	-10%
314	Wells & Springs	2.0%	55	-8%
316	Supply Mains	2.0%	50	0%
Pumping Plant				
321	Structures & Improvements	2.5%	44	-10%
325	Submersible Pumping Equipment	10.0%	12	-20%
Water Treatment Plant				
331	Structures & Improvements	2.5%	44	-10%
332	Water Treatment Equipment	2.9%	35	0%
Transmission and Distribution				
341	Structures & Improvements	2.5%	44	-10%
342	Distribution Reservoirs & Standpipes	2.5%	42	-5%
343	Transmission & Distribution Mains	2.0%	50	0%
345	Customer Services	2.5%	40	0%
346	Customer Meters	10.0%	10	0%
347	Customer Meter Pits & Installation	2.5%	40	0%
348	Hydrants	2.0%	50	0%
General Plant				
390	Structures & Improvements	2.5%	44	-10%
391	Office Furniture & Equipment	5.0%	20	0%
391.1	Office Electronic & Computer Equip.	14.3%	7	0%
392.0	Transportation Equipment (GP)	0.0%	Excessive	Accrual
392.1	Transportation Equipment (Pump Truck)	5.3%	17	10%
392.2	Transportation Equipment (Sierra Truck)	13.0%	7	9%
394	Tools, Shop, Garage Equipment	5.0%	18	10%
395	Laboratory Equipment	5.0%	20	0%
396	Power Operated Equipment	6.7%	13	13%
397	Communication Equipment	6.7%	15	0%

Reviewed, 11/11/2013. The above are standard small company depreciation rates modified as a result of Staff's investigation of the Company's operation, records, and physical plant, and are dependent on the Company's implementation of the end of test year adjustments to the Company's plant in service and accumulated reserves as shown in the Staff accounting schedules.

Lake Region Water & Sewer Company

SCHEDULE of DEPRECIATION RATES

(SEWER Class A & B)

SR-2013-0459

ACCOUNT NUMBER	ACCOUNT DESCRIPTION	DEPRECIATION RATE	AVERAGE SERVICE LIFE (YEARS)	NET SALVAGE
COLLECTION PLANT				
351	Structures & Improvements	4.0%	27.5	-10%
352.1	Collection Sewers (Force)	2.0%	50	0%
352.2	Collection Sewers (Gravity)	2.0%	50	0%
353	Services (A & B)	2.0%	50	0%
354	Flow Measurement Devices	3.3%	30	0%
PUMPING PLANT				
362	Receiving Wells	4.0%	26	-5%
363	Electric Pumping Equipment	10.0%	10	0%
TREATMENT & DISPOSAL PLANT				
371	Structures & Improvements	4.0%	27.5	-10%
372	Treatment & Disposal Facilities	5.0%	22	-10%
374	Outfall Sewer Lines	2.0%	50	0%
375	Other Treatment & Disposal Equip	2.0%	50	0%
GENERAL PLANT				
390	Structures & Improvements	2.5%	44	-10%
391	Office Furniture & Equipment	5.0%	20	0%
391	Office Electronic & Computer Equip.	14.3%	7	0%
392.0	Transportation Equipment (GP)	0.0%	Excessive	Accrual
392.1	Transportation Equipment (Pump Truck)	5.3%	17	10%
392.2	Transportation Equipment (Sierra Truck)	13.0%	7	9%
394	Tools, Shop, and Garage Equipment	5.0%	18	10%
395	Laboratory Equipment	5.0%	20	0%
396	Power Operated Equipment	6.7%	13	13%
397	Communication Equipment	6.7%	15	0%

Reviewed, 11/11/2013. The above are standard small company depreciation rates modified as a result of Staff's investigation of the Company's operation, records, and physical plant, and are dependent on the Company's implementation of the end of test year adjustments to the Company's plant in service and accumulated reserves as shown in the Staff accounting schedules.