MISSOURI PUBLIC SERVICE COMMISSION

STAFF REPORT

COST OF SERVICE

REVENUE REQUIREMENT

APPENDICES

THE EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. ER-2014-0351

Jefferson City, Missouri
January 2015

MISSOURI PUBLIC SERVICE COMMISSION

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COST OF SERVICE

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APPENDIX 1

Staff Credentials

THE EMPIRE DISTRICT ELECTRIC COMPANY

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Jefferson City, Missouri
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APPENDIX 1

STAFF CREDENTIALS
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Gary R. Bangert

Educational Background and Work Experience

Present Position

I am a Utility Management Analyst III in the Engineering and Management Services Unit of the Utility Services Department within the Regulatory Review Division.

Educational Background and Work Experience

I received my Bachelor of Science degree in Education from Concordia Teachers College in Seward, Nebraska, in 1973. I continued my education in 1975 by doing graduate work in mathematics at the University of Evansville in Evansville, Indiana.

I have been employed by the Commission since 1977 when I entered the Management Services Department as a Management Analyst. The name of the Management Services Department was changed to the Engineering and Management Services Department in 2000 when the Department was joined with Commission's Depreciation Department. My responsibilities at the Commission include planning, performing, and directing reviews of management operating and control systems at utility companies under the Commission's jurisdiction. I have been the project manager or performed in a support role on many special projects and management audits of public utilities operating within the State of Missouri under the jurisdiction of the Commission. In addition, I have participated in other types of utility investigations and review projects. At the direction of the Commission, during 2001, the Engineering and Management Services Department began reviewing the customer service practices of small water and sewer utilities when they request rate increases. I have performed numerous reviews of this type since then.

TESTIMONY SUMMARY

GARY R. BANGERT

DATE FILED	ISSUES	CASE NUMBER	FILING TYPE	COMPANY NAME
10/24/2003	Customer Service	GR-2003-0517	Direct	Union Electric Company d/b/a AmerenUE
5/22/2001	Customer Service	GR-2001-292	Rebuttal	Missouri Gas Energy
8/4/2000	Billing	GR2000512	Direct	Union Electric Company d/b/a AmerenUE
1/27/1984	Management Efficiency	EO8473	Direct	Union Electric Company
8/3/1983	Management Efficiency	ER83206	Direct	Arkansas Power & Light Company
7/15/1983	Management Efficiency	ER83163	Rebuttal	Union Electric Company
6/3/1983	Management Efficiency	ER83163	Direct	Union Electric Company

ALAN J. BAX

I graduated from the University of Missouri - Columbia with a Bachelor of Science degree in Electrical Engineering in December 1995. Concurrent with my studies, I was employed as an Engineering Assistant in the Energy Management Department of the University of Missouri – Columbia from the Fall of 1992 through the Fall of 1995. Prior to this, I completed a tour of duty in the United States Navy, completing a course of study at the Navy Nuclear Power School and a Navy Nuclear Propulsion Plant. Following my graduation from the University of Missouri - Columbia, I was employed by The Empire District Electric Company (Empire or Company) as a Staff Engineer until August 1999, at which time I began my employment with the Staff of the Missouri Public Service Commission (Staff). I am a member of the Institute of Electrical/Electronic Engineers (IEEE).

TESTIMONY AND REPORTS
BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION

BY ALAN J. BAX

COMPANY	CASE NUMBER
Aquila Networks – MPS	ER-2004-0034
Union Electric Company d/b/a AmerenUE	EO-2004-0108
Empire District Electric Company	ER-2002-0424
Kansas City Power and Light Company	EA-2003-0135
Union Electric Company d/b/a AmerenUE	EO-2003-0271
Aquila Networks – MPS	EO-2004-0603
Union Electric Company d/b/a AmerenUE	EC-2002-0117
Three Rivers and Gascosage Electric Coops	EO-2005-0122
Union Electric Company d/b/a AmerenUE	EC-2002-1
Empire District Electric Company	ER-2001-299
Aquila Networks – MPS	EA-2003-0370
Union Electric Company d/b/a AmerenUE	EW-2004-0583
Union Electric Company d/b/a AmerenUE	EO-2005-0369
Trigen Kansas City	HA-2006-0294
Union Electric Company d/b/a AmerenUE	EC-2005-0352
Missouri Public Service	ER-2001-672
Aquila Networks – MPS	EO-2003-0543
Kansas City Power and Light Company	ER-2006-0314
Macon Electric Coop	EO-2005-0076
Aquila Networks – MPS	EO-2006-0244
Union Electric Company d/b/a AmerenUE	EO-2003-0271
Union Electric Company d/b/a AmerenUE	EW-2004-0583
Union Electric Company d/b/a AmerenUE	EC-2004-0556
Union Electric Company d/b/a AmerenUE	EC-2004-0598
Empire District Electric Company	ER-2004-0570
Union Electric Company d/b/a AmerenUE	EC-2005-0110
Union Electric Company d/b/a AmerenUE	EC-2005-0177
Union Electric Company d/b/a AmerenUE	EC-2005-0313
Empire District Electric Company	EO-2005-0275
Aquila Networks – MPS	EO-2005-0270
Union Electric Company d/b/a AmerenUE	EO-2006-0145
Empire District Electric Company	ER-2006-0315
Aquila Networks – MPS	ER-2005-0436
Union Electric Company d/b/a AmerenUE	EC-2005-0352
Union Electric Company d/b/a AmerenUE	EO-2006-0096
West Central Electric Cooperative	EO-2006-0339
Union Electric Company d/b/a AmerenUE	EO-2008-0031

Union Electric Company d/b/a AmerenUE	EC-2009-0193
Empire District Electric Company	ER-2008-0093
Missouri Rural Electric Cooperative	EO-2008-0332
Grundy Electric Cooperative	EO-2008-0414
Osage Valley Electric Cooperative	EO-2009-0315
Union Electric Company d/b/a AmerenUE	EO-2009-0400
Union Electric Company d/b/a AmerenUE	EO-2008-0310
Aquila Networks – MPS	EA-2008-0279
West Central Electric Cooperative	EO-2008-0339
Empire District Electric Company	EO-2009-0233
Union Electric Company d/b/a/ AmerenUE	EO-2009-0272
Empire District Electric Company	EO-2009-0181
Union Electric Company d/b/a AmerenUE	ER-2008-0318
Kansas City Power and Light Company	ER-2009-0089
Kansas City Power and Light – GMO	ER-2009-0090
Union Electric Company d/b/a AmerenUE	ER-2010-0036
Union Electric Company d/b/a AmerenUE	ER-2010-0036
Empire District Electric Company	ER-2010-0130
Laclede Electric Cooperative	EO-2010-0125
Union Electric Company d/b/a AmerenUE	EC-2010-0364
Union Electric Company d/b/a AmerenUE	EO-2011-0052
Kansas City Power and Light Company	ER-2010-0355
Kansas City Power and Light – GMO	EO-2011-0137
Kansas City Power and Light – GMO	ER-2010-0356
Union Electric Company d/b/a AmerenUE	ER-2011-0028
Kansas City Power and Light – GMO	EO-2012-0119
Kansas City Power and Light Company	EO-2011-0137
Ameren Missouri	ER-2012-0121
Empire District Electric Company	EO-2011-0085
Empire District Electric Company	EO-2012-0192
Empire District Electric Company	EO-2013-0313
Ameren Missouri	ER-2012-0180
Ameren Missouri	EO-2013-0418
City Utilities of Springfield	EO-2012-0441
Kansas City Power and Light – GMO	EO-2012-0367
Empire District Electric Company	ER-2011-0004
Union Electric Company d/b/a/ Ameren Missouri	ER-2012-0166
Kansas City Power and Light Company	ER-2012-0174
Union Electric Company d/b/a/ Ameren Missouri	ER-2013-0044
Kansas City Power and Light – GMO	ER-2012-0175
Central Missouri Electric Cooperative	EO-2015-0137
Empire District Electric Company	ER-2012-0345
Kansas City Power and Light Company	EO-2012-0367
Boone Electric Cooperative	EO-2015-0012
Transource Missouri, LLC	EA-2013-0098
Black River Electric Cooperative	EO-2015-0096

Union Electric Company d/b/a/ Ameren Missouri	EW-2012-0369
Empire District Electric Company	ER-2014-0351
Union Electric Company d/b/a/ Ameren Missouri	EO-2014-0044
Union Electric Company d/b/a/ Ameren Missouri	EO-2013-0418
Union Electric Company d/b/a/ Ameren Missouri	EE-2013-0511
Union Electric Company d/b/a/ Ameren Missouri	EO-2015-0017
Union Electric Company d/b/a/ Ameren Missouri	EO-2014-0009
Kansas City Power and Light Company	EO-2014-0128
Union Electric Company d/b/a/ Ameren Missouri	EO-2014-0296
Union Electric Company d/b/a/ Ameren Missouri	ER-2014-0258

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

Company Name	Case Number	Testimony/Issues	Contested or Settled
Brandco Investments/ Hillcrest Utility Operating Company, Inc.	WO-2014-0340	**Rebuttal** – Rate Base and Future Rates	Settled
Lake Region Water & Sewer	WR-2013-0461	**Direct** – Overview of Staff's Filing **Report on Cost of Service** – True-Up, Availability Fees, Sewer Operating Expense, Sewer Equipment Maintenance Expense **Surrebuttal** – Availability Fees **True-Up Direct** – Overview of True-Up Audit **True-Up Rebuttal** – Corrections to True-Up	Contested
Empire District Electric Company	ER-2012-0345	**Direct** - Overview of Staff's Filing **Report on Cost of Service** – SWPA Hydro Reimbursement, Joplin Tornado AAO Asset, SPP Revenues, SPP Expenses, Regulatory Plan Amortization Impacts, SWPA Amortization, Tornado AAO Amortization **Rebuttal** – Unamortized Balance of Joplin Tornado AAO, Rate Case Expense, True-Up and Uncontested Issues **Surrebuttal** – Unamortized Balance of Joplin Tornado AAO, SPP Transmission Expense, True-Up, Advanced Coal Investment Tax Credit	Settled
Missouri-American Water Company	WR-2011-0337	**Direct** – Overview of Staff's Filing **Report on Cost of Service** - True-Up Recommendation, Tank Painting Tracker, Tank Painting Expense **Rebuttal** - Tank Painting Expense, Business Transformation **Surrebuttal** – Tank Painting Tracker, Acquisition Adjustment	Settled
Missouri-American Water Company	WR-2010-0131	**Report on Cost of Service** - 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	Settled

CASE PARTICIPATION
OF
KIMBERLY K. BOLIN

Company Name	Case Number	Testimony/Issues	Contested or Settled
Empire District Gas Company	GR-2009-0434	**Report on Cost of Service** – 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 **Direct** – Overview of Staff's Filing	Settled
Laclede Gas Company	GT-2009-0056	**Surrebuttal Testimony** – Tariff	Contested
Missouri-American Water Company	WR-2008-0311 & SR-2008-0312	**Report on Cost of Service** – Tank Painting Tracker, Lobbying Costs, PSC Assessment **Direct** – Overview of Staff's Filing **Rebuttal** – True-Up Items, Unamortized Balance of Security AAO, Tank Painting Expense, Fire Hydrant Painting Expense **Surrebuttal** – 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	**Report on Cost of Service** – Plant-in Service/Capitalization Policy, Plant-in Service/Purchase Price Valuation, Depreciation Reserve, Revenues, Uncollectible Expense	Settled
Laclede Gas Company	GR-2007-0208	**Direct**- Test Year and True-Up, Environmental costs, AAOs, Revenue, Miscellaneous Revenue, Gross receipts Tax, Gas Costs, Uncollectibles, EWCR, AMR, Acquisition Adjustment	Settled

CASE PARTICIPATION
OF
KIMBERLY K. BOLIN

Company Name	Case Number	Testimony/Issues	Contested or Settled
Kansas City Power and Light Company	ER-2006-0314	**Direct**- 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 **Surrebuttal**- Uncollectible (Bad Debt) Expense, Payroll, A&G Salaries Capitalization Ratio, Other Employee Benefits	Contested
Missouri Gas Energy	GR-2006-0204	**Direct**- 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

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

CASE PARTICIPATION
OF
KIMBERLY K. BOLIN

WHILE EMPLOYED WITH THE OFFICE OF THE PUBLIC COUNSEL

Company Name	Case Number	Testimony/Issues	Contested or Settled
Laclede Gas Company	GR-2002-356	**Direct**- Advertising Expense; Safety Replacement Program and the Copper Service Replacement Program; Dues & Donations; Rate Case Expense **Rebuttal**- Gas Safety Replacement Program / Deferred Income Taxes for AAOs	Settled
Missouri-American Water Company	WO-2002-273	**Rebuttal**- Accounting Authority Order **Cross-Surrebuttal**- Accounting Authority Order	Contested
Environmental Utilities	WA-2002-65	**Direct**- Water Supply Agreement **Rebuttal**- Certificate of Convenience & Necessity	Contested
Warren County Water & Sewer	WC-2002-160 / SC-2002-155	**Direct**- Clean Water Act Violations; DNR Violations; Customer Service; Water Storage Tank; Financial Ability; Management Issues **Surrebuttal**- Customer Complaints; Poor Management Decisions; Commingling of Regulated & Non-Related Business	Contested
Laclede Gas Company	GR-2001-629	**Direct**- Advertising Expense; Safety Replacement Program; Dues & Donations; Customer Correspondence	Settled
Gateway Pipeline Company	GM-2001-585	**Rebuttal**- Acquisition Adjustment; Affiliated Transactions; Company's Strategic Plan	Contested
Empire District Electric	ER-2001-299	**Direct**- Payroll; Merger Expense **Rebuttal**- Payroll **Surrebuttal**- Payroll	Settled
Osage Water Company	SR-2000-556/ WR-2000-557	**Direct**- Customer Service	Contested
St. Louis County Water Company	WR-2000-844	**Direct**- Main Incident Expense	Settled

CASE PARTICIPATION
OF
KIMBERLY K. BOLIN

WHILE EMPLOYED WITH THE OFFICE OF THE PUBLIC COUNSEL

Company Name	Case Number	Testimony/Issues	Contested or Settled
Missouri American Water Company	WR-2000-281/ SR-2000-282	**Direct**- Water Plant Premature Retirement; Rate Case Expense **Rebuttal**- Water Plant Premature Retirement **Surrebuttal**- Water Plant Premature Retirement	Contested
Laclede Gas Company	GR-99-315	**Direct**- Advertising Expense; Dues & Donations; Miscellaneous Expense; Items to be Trued-up	Contested
St. Joseph Light & Power	HR-99-245	**Direct**- Advertising Expense; Dues & Donations; Miscellaneous Expense; Items to be Trued-up **Rebuttal**- Advertising Expense **Surrebuttal**- Advertising Expense	Settled
St. Joseph Light & Power	ER-99-247	**Direct**- Merger Expense; Rate Case Expense; Deferral of the Automatic Mapping/Facility Management Costs **Rebuttal**- Merger Expense; Rate Case Expense; Deferral of the Automatic Mapping/Facility Management Costs **Surrebuttal**- Merger Expense; Rate Case Expense; Deferral of the Automatic Mapping/Facility Management Costs	Settled
Laclede Gas Company	GR-98-374	**Direct**- Advertising Expense; Gas Safety Replacement AAO; Computer System Replacement Costs	Settled
Missouri Gas Energy	GR-98-140	**Direct**- Payroll; Advertising; Dues & Donations; Regulatory Commission Expense; Rate Case Expense	Contested
Gascony Water Company, Inc.	WA-97-510	**Rebuttal**- Rate Base; Rate Case Expense; Cash Working Capital	Settled
Union Electric Company	GR-97-393	**Direct**- Interest Rates for Customer Deposits	Settled

CASE PARTICIPATION
OF
KIMBERLY K. BOLIN

WHILE EMPLOYED WITH THE OFFICE OF THE PUBLIC COUNSEL

Company Name	Case Number	Testimony/Issues	Contested or Settled
St. Louis County Water Company	WR-97-382	**Direct**- Interest Rates for Customer Deposits, Main Incident Expense	Settled
Associated Natural Gas Company	GR-97-272	**Direct**- Acquisition Adjustment; Interest Rates for Customer Deposits **Rebuttal**- Acquisition Adjustment; Interest Rates for Customer Deposits **Surrebuttal**- Interest Rates for Customer Deposits	Contested
Missouri-American Water Company	WA-97-45	**Rebuttal**- Waiver of Service Connection Charges	Contested
Imperial Utility Corporation	SC-96-427	**Direct**- Revenues, CIAC **Surrebuttal**- Payroll; Uncollectible Accounts Expense; Rate Case Expense, Revenues	Settled
St. Louis Water Company	WR-96-263	**Direct**-Main Incident Repairs **Rebuttal**- Main Incident Repairs **Surrebuttal**- Main Incident Repairs	Contested
Steelville Telephone Company	TR-96-123	**Direct**- Depreciation Reserve Deficiency	Settled
Missouri-American Water Company	WR-95-205/ SR-95-206	**Direct**- Property Held for Future Use; Premature Retirement of Sewer Plant; Depreciation Study Expense; Deferred Maintenance **Rebuttal**- Property Held for Future Use; Premature Retirement of Sewer Plant; Deferred Maintenance **Surrebuttal**- Property Held for Future Use; Premature Retirement of Sewer Plant	Contested
St. Louis County Water Company	WR-95-145	**Rebuttal**- Tank Painting Reserve Account; Main Repair Reserve Account **Surrebuttal**- Main Repair Reserve Account	Contested

Brad J. Fortson

Education and Employment Background

I am a Regulatory Economist in the Economic Analysis Section, Regulatory Review Division of the Missouri Public Service Commission. I have been employed at the Missouri Public Service Commission since December 2012.

I received my Associate of Applied Science degree in Computer Science in May 2003, Bachelor of Science degree in Business Administration in May 2009, and Master of Business Administration degree with an emphasis in Management in May 2012 from Lincoln University, Jefferson City, Missouri.

Prior to joining the Commission, I worked in various accounting positions within four state agencies of the State of Missouri. I was employed as an Account Clerk II for the Inmate Finance Section of the Missouri Department of Corrections; as an Account Clerk II for the Accounts Payable Section of the Missouri Department of Health and Senior Services; as a Contributions Specialist for the Employer Accounts Section of the Missouri Department of Labor and Industrial Relations; and as an Accountant I for the Payroll Section of the Missouri Office of Administration.

Brad J. Fortson

Case Participation History

Case Number	Company	Issue	Exhibit
ER-2015-0258	Union Electric Company d/b/a Ameren Missouri	Revenue by Class and Rate Design	Staff Report & Rebuttal
ER-2015-0132	Union Electric Company d/b/a Ameren Missouri	Staff Recommendation	Staff Memorandum
GR-2014-0086	Summit Natural Gas of Missouri, Inc.	Large Volume Service Revenue	Staff Report
HR-2014-0066	Veolia Energy Kansas City	Revenue by Class and Rate Design	Staff Report
HR-2014-0066	Veolia Energy Kansas City	Staff Recommendation	Staff Memorandum
HT-2014-0286	KCP&L Greater Missouri Operations Company	Quarterly Cost Adjustment	Staff Memorandum
HT-2013-0456	KCP&L Greater Missouri Operations Company	Quarterly Cost Adjustment	Staff Memorandum

JERMAINE GREEN

Education and Employment Background and Credentials

I am currently employed as a Utility Regulatory Auditor III for the Missouri Public Service Commission (Commission). I began my employment with the Commission on June 2nd, 2009. In May 2009 I earned a Bachelor of Arts in Accounting from Westminster College in Fulton, MO. In earning this degree I completed numerous core Accounting and business classes. I completed my Masters in Business Administration at Lincoln University in May of 2012.

As a Utility Regulatory Auditor, I perform rate audits and prepare miscellaneous filings as ordered by the Public Service Commission. In addition, I review all exhibits and testimony on my assigned issues, develop adjustments and issue positions which I then support by work papers and written testimony. For those cases that do not require prepared testimony, I prepare Staff Recommendation Memorandums.

Other cases I have been assigned to or participated are:

Case Number	Company Name - Issue
ER-2014-0351	Empire District Electric – Payroll (Taxes, Benefits, 401K), Incentive Compensation , O&M Normalization, O&M Trackers, Vegetation Management Tracker (Tree Trimming & Infrastructure Remediation Expense) and Reconciliation.
SR-2015-0106	Seges Mobile Home Park (Sewer Company) - Lead Auditor informal rate case.
GR-2014-0086	Missouri Summit Natural Gas – Revenues, Bad Debts, Insurance, Injuries & Damages, Outside Services, Lobbying Expense, Utility Expense, and Allocations
SR-2014-0166	Hickory Hills Water & Sewer – Payroll, Water & Sewer Revenues, PSC Assessment, Utility Expense, and other Misc. Expenses
WR-2013-0543	Roy L Water & Sewer – Payroll, PSC Assessment, and Electric Expense.

JERMAINE GREEN

Case Number	Company Name - Issue
SR-2013-0112	Seges Mobile Home Park (Sewer Company) – Lead Auditor - Revenues, Payroll & Taxes, Plant-in-Service, Depreciation Reserve, Bad Debts, Property Tax, Materials & Supplies, Dues & Donations, and PSC Assessment.
ER-2012-0345	Empire Electric – Revenues, Bad Debts, Dues & Donations, Advertising Expense, Outside Services and Jurisdictional Allocations.
WR-2012-0300	Empire Water - Revenues, Rate Case Expense, Property Taxes, Bad Debt Expense, Postage Expense, Purchased
WR-2011-0337	Missouri-American Water Company (MAWC) – Revenues, Rate Case Expense, Property Taxes, Bad Debt Expense, Postage Expense, Purchased Water, PSC Assessment, and Franchise Tax.
WA-2011-0260	Braden Park LLC (Certificate Case) – Payroll & Taxes, Purchased Water, Plant-in-Service, and Income Taxes
SR-2011-0133	Seges Mobile Home Park (Sewer Company) – Lead Auditor - Revenues, Payroll & Taxes, Plant-in-Service, Depreciation Reserve, Bad Debts, Property Tax, Materials & Supplies, Dues & Donations, and PSC Assessment.
WR-2011-0037	Tri-States Utility Inc. – Revenues, Payroll & Taxes, Plant-in-Service, CIAC, Depreciation Reserve, Fuel & Power, Chemicals, Bad Debts, Rent, Property Tax, Materials & Supplies, Dues & Donations, and PSC Assessment.
GR-2010-0347	Southern Missouri Natural Gas (SMNG) – Payroll & Payroll Taxes, Customer Deposits, Employee Benefits, Property Tax, Uncollectible Expense , Dues & Subscriptions, Rent, and Advertising.

JERMAINE GREEN

Case Number	Company Name - Issue
WR-2010-0309	Middlefork Water Company – Chemicals, Payroll & Payroll Taxes, Revenues, Rate Case Expense, Fuel & Power, Insurance, Maintenance, Materials & Supplies, Transportation Expense and other expenses
WR-2010-0131	Missouri American Water Company (MAWC) – Cash Working Capital (CWC), Fuel & Power, Chemicals, Injuries & Damages, Property Tax, Rate Case Expense, Purchased Water, PSC Assessment, Property Tax, Insurance, Franchise Tax, and Telephone Expense.
WR-2010-0154	SK&M Water and Sewer Company - Plant in Service, Depreciation Expenses and Reserve, Fuel & Power, Revenues, and Customer Deposits
GR-2009-0434	Empire District Gas (EDG) - Plant in Service, Depreciation Expenses and Reserve, Cash Working Capital (CWC), Payroll & Payroll Taxes, Dues & Donations, PSC Assessment, Advertising, Materials & Supplies, Postage, Customer Deposit, Customer Advances and Prepayments
WR-2009-0395	Noel Water Company - Plant in Service, Depreciation Expenses and Reserve

SHANA GRIFFIN

Educational and Employment Background and Credentials

I am currently employed as a Utility Regulatory Auditor III 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.

Prior to October 11, 2014, I have filed testimony and participated in cases before the Commission under my maiden name of Shana Atkinson. I have developed rate of return recommendations for numerous finance cases, small water and sewer rate cases and have assisted as needed in small water and sewer certificate cases.

SUMMARY OF CASE PARTICIPATION

SHANA GRIFFIN

Date Filed	Issue	Case Number	Exhibit	Case Name
Summary of Case Participation as Shana Atkinson now known as Shana Griffin				
10/3/2014	Financing	WO-2014-0340	Rebuttal	Brandco Investments, LLC and Hillcrest Utility Operating Company, Inc.
9/12/2014	Rate of Return Capital Structure	WR-2014-0167	Rebuttal	Hickory Hills Water & Sewer Company
9/12/2014	Rate of Return Capital Structure	SR-2014-0166	Rebuttal	Hickory Hills Water & Sewer Company
5/1/2014	Rate of Return Capital Structure	HR-2014-0066	Cost of Service Report	Veolia Energy Kansas City, Inc.
1/31/2014	Rate of Return Capital Structure	WR-2013-0461	Surrebuttal	Lake Region Water & Sewer Company
1/31/2014	Rate of Return Capital Structure	SR-2013-0459	Surrebuttal	Lake Region Water & Sewer Company
11/15/2013	Rate of Return Capital Structure	WR-2013-0461	Cost of Service Report	Lake Region Water & Sewer Company
11/15/2013	Rate of Return Capital Structure	SR-2013-0459	Cost of Service Report	Lake Region Water & Sewer Company
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

SUMMARY OF CASE PARTICIPATION

SHANA GRIFFIN

Date Filed	Issue	Case Number	Exhibit	Case Name
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
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

SUMMARY OF CASE PARTICIPATION

SHANA GRIFFIN

Date Filed	Issue	Case Number	Exhibit	Case Name
10/20/2009	Rate of Return Capital Structure	GR-2009-0434	Cost of Service Report	Empire District Gas Company

Randy S. Gross

Educational Background and Work Experience

I am a Utility Regulatory Engineer I in the Energy Unit of the Utility Operations Department of the Regulatory Review Division. I have Master and Bachelor of Science degrees in Electrical Engineering from the University of Missouri at Columbia. I am an active licensed Professional Engineer in the states of Kansas and Missouri with inactive licenses in Arizona and Illinois. I have co-authored nine technical papers in the areas of process instrumentation and controls, power plant performance monitoring and information technology. My work experience spans more than 40 years in electrical and instrumentation and control detailed design, information technology, training, software verification and validation, telecommunication, project management and controls, construction management, contract administration, plant start-up, project oversight, plant operating procedures, design basis reconstitution, equipment technical specifications and procurement, nuclear plant and site, detailed design engineering, plant modifications and engineering procedures. From 1972-1997, I was employed by Black & Veatch with responsibilities in electrical, instrumentation and control engineering and project management. From 1997-2001, I was employed by the Foxboro Company (Invensys) as a Principal Account Manager for Distributed Control Systems (DCS) that included hardware, software and instrumentation. From 2001-2002, I provided consulting services for the Argosy Console company in the areas of process engineering and re-engineering, supply chain management, Quality Assurance, Six Sigma and Safety program implementations.

From 2002-2005, I provided contract engineering services to AmerenUE at the Callaway Nuclear Station in the areas of Software Verification and Validation, INPO accredited

training, Project Management, Cost and Schedule controls, Digital Control System procedures and Plant Operation procedures. In 2005, I provided contract detailed instrumentation and control engineering services for the Process Division of Burns & McDonnell Engineering for the Conoco Phillips refinery in Amarillo, TX. In 2006, I was employed by CIBER as a Senior Strategist with responsibilities in Project Oversight for large software development projects and Continuity of Operations Plans. From 2007-2009, I provided staff augmentation contract engineering services for the Wolf Creek Nuclear Operating Company (WCNOC) at their Wolf Creek Nuclear Power Station as a Senior Design Professional Engineer for major design projects, emergent engineering issues and plant refueling outage engineering. In 2009, I was employed with Black & Veatch as the Nuclear Division Business Line Manager with responsibilities for business development, outside sale and marketing. I have been employed by the Missouri Public Service Commission since February 2010 as a staff Engineer to provide technical expertise in the areas of smart grid deployment and implementation, transmission, distribution, demand response, renewable/alternative energy sources, plug in hybrid and electric vehicles and coal carbon capture and sequestration. I attended the Commission's Missouri Energy Efficiency Investment Act of 2009 ("MEEIA") rulemaking workshops held in April through June, 2010 and participate in workshops addressing issues, impacts, deployment and implementation for demand response aggregation and smart grid issues. I am currently serving on the Organization of MISO States Demand Response and Technology independent working group, the NARUC staff Subcommittee on Clean Coal and Carbon Sequestration, and have worked with EISPC on various transmission line planning tasks.

Randy S. Gross

Randy S. Gross

Other cases I have been assigned to or participated are as follows:

Date Filed	Case Number	Company Name
11/10/2010	ER-2010-0355	Kansas City Power & Light Company
11/17/2010	ER-2010-0356	Kansas City Power & Light Company Greater Missouri Operations Company
05/10/2011	ER-2011-0028	Ameren Missouri
01/06/2012	EO-2011-0271	Ameren Missouri
03/20/2012	EO-2012-0009	Kansas City Power & Light Company Greater Missouri Operations Company
04/12/2012	EO-2012-0142	Ameren Missouri
08/02/2012	ER-2012-1074	Kansas City Power & Light Company
08/13/2012	ER-2012-0175	Kansas City Power & Light Company Greater Missouri Operations Company
09/06/2012	EO-2012-323	Kansas City Power & Light Company
09/06/2012	EO-2012-324	Kansas City Power & Light Company Greater Missouri Operations Company
10/22/2012	ER-2012-0166	Ameren Missouri
11/30/2012	ER-2012-0345	Empire District Electric
02/26/2013	EO-2013-0114	Empire District Electric
04/25/2013	EO-2013-0424	Ameren Missouri
05/29/2013	EO-2013-0325	Kansas City Power & Light Company Greater Missouri Operations Company
08/20/2013	EO-2013-0537	Kansas City Power & Light Company
08/20/2013	EO-2013-0538	Kansas City Power & Light Company Greater Missouri Operations Company
08/28/2013	EO-2013-0325	Ameren Missouri
12/02/2013	EO-2013-0547	Empire District Electric

Randy S. Gross

Date Filed	Case Number	Company Name
09/18/2013	EO-2013-0407	Ameren Missouri
02/20/2014	EO-2014-0057	Empire District Electric
05/27/2014	EO-2014-0095	Kansas City Power & Light Company
08/29/2014	EO-2014-0242	Kansas City Power & Light Company Greater Missouri Operations Company

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 Unit 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 Unit 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 Unit.

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. Since becoming a regulatory auditor, I have participated in approximately thirty formal and twenty-five informal rate case proceedings before the Commission. 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

SUMMARY OF FORMAL CASES		
COMPANY	**CASE NO.**	**TESTIMONY/ISSUES**
The Empire District Electric Company	**ER-2014-0351**	**In Progress** **Cost of Service Report**-Pension & OPEBs; 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.
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.
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. **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

SUMMARY OF FORMAL CASES		
COMPANY	**CASE NO.**	**TESTIMONY/ISSUES**
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
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**

SUMMARY OF FORMAL CASES		
COMPANY	**CASE NO.**	**TESTIMONY/ISSUES**
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 Taxes** **Lead Auditor**
Kansas City Power & Light (KCPL)	**ER-2009-0089**	**March 2009** **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

SUMMARY OF FORMAL CASES		
COMPANY	**CASE NO.**	**TESTIMONY/ISSUES**
KCPL-GMO MPS & L&P Electric	**ER-2009-0090**	**March 2009** **Cost of Service Report-** Pensions & OPEBS; Miscellaneous Adjustments; SJLP Merger Transition Costs; Employee Relocation Expense; Lease Expenses; Current & Deferred Income Taxes **Lead Auditor**
KCPL-GMO L&P Steam	**HR-2009-0092**	**March 2009** **Cost of Service Report-** Pensions & OPEBS; Miscellaneous Adjustments; Current & Deferred Income Taxes **Lead Auditor**
Missouri American Water Company	**WR-2008-0311**	**October 2008** **Surrebuttal-** Belleville Lab Allocations; Compensation for Services MAWC Provided to AWR **Litigated-** Corporate Allocations **True-Up - Corporate Allocations; Income & Deferred Taxes** **Lead Auditor**
Missouri American Water Company	**WR-2008-0311**	**August 2008** **Cost of Service Report-** Case Reconciliation; Corporate Allocations & Expenses; Belleville Lab Allocations; Compensation for Services MAWC Provided to AWR; Current & Deferred Income Taxes **Lead Auditor**
Laclede Gas Company		**Separate Docket** Investigation of Affiliated Transactions, Corporate Allocations & Appropriate Time Charges Between Laclede's Regulated & Unregulated Subsidiaries
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**

SUMMARY OF FORMAL CASES		
COMPANY	**CASE NO.**	**TESTIMONY/ISSUES**
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** **Rebuttal-** Storm Damage Tracker

SUMMARY OF FORMAL CASES		
COMPANY	**CASE NO.**	**TESTIMONY/ISSUES**
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

SUMMARY OF FORMAL CASES		
COMPANY	**CASE NO.**	**TESTIMONY/ISSUES**
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
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 (2nd period, 3rd 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
2nd 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**

SUMMARY OF FORMAL CASES		
COMPANY	**CASE NO.**	**TESTIMONY/ISSUES**
1st 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 (2nd period, 2nd EARP) (Electric)	**EC-2001-431**	**February 2001** Coal Inventory
Union Electric Company d/b/a AmerenUE (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		
Missouri American Water Company Acquisition of Anna Meadows	**WA-2015-0019**	**January 2015** Anna Meadows Acquisition & Certificate of Convenience & Necessarily Concerning review of Feasibility Study and Development of Rate Base; Expenses & Revenues
Hickory Hills Water & Sewer Receivership Case	**WR-2014-0167** **SR-2014-0166**	**November 2014** **Memorandum** - Small Informal rate case – All Cost of Service items to include Rate Base; Revenues; Expenses; and Current & Deferred Taxes. **Lead Auditor**

SUMMARY OF FORMAL CASES		
COMPANY	**CASE NO.**	**TESTIMONY/ISSUES**
Missouri American Water Company Acquisition of Benton County Sewer District No. 1	**WA-2014-0065**	**In Progress** **Memorandum** – Benton County Acquisition & Certificate of Convenience & Necessarily Concerning review of Feasibility Study and Development of Rate Base; Expenses & Revenues. **Lead Auditor**
MPB & PBC Sewer Systems Receivership Case	**SR-2014-0067** **SR-2014-0068** **SO-2014-0052**	**September 2014** **Memorandum** -- Small Informal rate case – All Cost of Service items to include Rate Base; Revenues; Expenses; and Current & Deferred Taxes **September 2013** **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. **Lead Auditor**
Roy-L Water & Sewer Utilities	**WR-2013-0543** **SR-2013-0544**	**June 2014** Small Informal rate case – All Cost of Service items to include Rate Base; Revenues; Expenses; and Current & Deferred Taxes. **Lead Auditor**
Rogue Creek Utilities, Inc. Receivership Case	**WR-2013-0436** **SR-2013-0435**	**February 2014** **Memorandum** - Small Informal rate case – All Cost of Service items to include Rate Base; Revenues; Expenses; and Current & Deferred Taxes. **May 2013** **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. **Lead Auditor**

SUMMARY OF FORMAL CASES		
COMPANY	**CASE NO.**	**TESTIMONY/ISSUES**
Missouri American Water Company & Tri-State Water Acquisition Case	**WO-2013-0517**	**September 2013** **Memorandum** – Determination of net rate base to include Plant in Service; Depreciation Reserve; Other Rate Base Items including CIAC and Revenues & Expenses **Lead Auditor**
Summit Natural Gas of Missouri, Inc.	**GA-2013-0404**	**April 2013** **Memorandum**-- Summit Natural Gas of Missouri, Inc. Certificate of Convenience & Necessarily Concerning review of Feasibility Study and Development of Revenues; Expenses & Revenues. **Lead Auditor**
Raytown Water Company	**WR-2012-0405**	**July - 2012** **Memorandum**-- Cost of Service; Payroll & Benefits; Incentive Compensation; Plant-In-Service, Depreciation Reserve & Other Rate Base Items: Affiliated Transactions; Tank Painting; City Permit Fees; EIERA 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 . **Lead Auditor**
Summit Natural Gas of Missouri, Inc.	**GA-2010-0012**	**June-2012** **Memorandum**-- Summit Natural Gas of Missouri, Inc. Certificate of Convenience & Necessarily Concerning review of Feasibility Study and Development of Rate Base; Expenses & Revenues. **Lead Auditor**
Rogue Creek Water & Sewer	**WR-2012-0000** **SR-2012-0000**	**April 2012** **Earnings Investigation** - To Determine if the Utility was Earning Sufficient Revenues to Recover its Cost of Providing Service To Ratepayers.

SUMMARY OF FORMAL CASES		
COMPANY	**CASE NO.**	**TESTIMONY/ISSUES**
Missouri American Water Company & Saddlebrooke Acquistion	**WA-2012-0066**	**April-2012** **Memorandum--** Saddlebrooke Acquisition & Certificate of Convenience & Necessarily Concerning review of Feasibility Study and Development of Rate Base; Expenses & Revenues. **Lead Auditor**
Missouri American Water Company & Roark Water Acquisition Case	**WO-2011-0213** **SO-2011-0214**	**March 2011** **Memorandum--** Determination of net rate base to include Plant in Service; Depreciation Reserve; Other Rate Base Items including CIAC and Revenues & Expenses **Lead Auditor**
Tri-State Water Company	**WR-2011-0037**	**March 2011** 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 **Lead Auditor**
Raytown Water Company	**WR-2010-0304**	**February 2011** **Memorandum--** Cost of Service; Affiliated Transactions; Tank Painting; Hydrant Maintenance; City Permit Fees; EIERA 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 . **Lead Auditor**
Noel Water Company	**WR-2009-0395**	**August 2009** **Memorandum--** Cost of Service; All Revenues & Expenses related to Noel Water Company; Plant in Service; Depreciation Reserve & other Rate Base Items. **Lead Auditor**
Tri-State Water Company	**WR-2009-0058**	**May 2008** **Memorandum--** Cost of Service; Payroll; rent expense; miscellaneous maintenance expenses; Rate Base and Current & Deferred Income Taxes. **Lead Auditor**

SUMMARY OF FORMAL CASES		
COMPANY	**CASE NO.**	**TESTIMONY/ISSUES**
Big Island Water & Sewer	**WA-2006-0480** **SA-2006-0482**	**January 2007** **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. **Lead Auditor**
Aqua Missouri Water and Sewer	**QS-2005-0008** **QW-2005-009** **QS-2005-0010** **QW-2005-0011**	**October 2006** **Memorandum--** Cost of Service - All Revenues & Expenses related to Aqua MO Water & Sewer; Plant in Service; Depreciation Reserve & other Rate Base Items. **Lead Auditor**
Lake Region Water and Sewer Certificate Case	**WA-2005-0463**	**October 2006** **Memorandum--** Certificate of Necessitate Application Case **Lead Auditor**
Tri-State Utility Inc.	**WA-2006-0241**	**May 2006** **Memorandum--** Certificate of Necessitate Application Case **Lead Auditor**
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**

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

Hojong Kang

Educational Background and Work Experience

I have a Ph.D degree in Economics from the University of Missouri, Columbia in 2005, a Master of Business Administration degree from California State University at East Bay in 1996 and a Bachelor of Science degree in Business Administration from Hong-Ik University, Korea in 1991. Prior to my current employment, I spent four years as the Associate Director for the International Economic Research Institute at the University of Missouri and facilitated government policy discussions with Korean government officials in the international scholar community at the University of Missouri. From 2006 to 2008, I taught economics classes including Money, Banking and Financial Market, Firm Theories, and Intermediate Macroeconomics as an Adjunct Assistant Teaching Professor. While I was in the Doctoral program, I worked as a Teaching Assistant for various economics classes and a Research Assistant of economic analysis projects for Missouri's social benefit programs. I have been employed as a regulatory economist III by the Missouri Public Service Commission ("PSC") since March 2010. As a regulatory economist, I review the electric utility integrated resource plan filings and the general rate increase filings of investor-owned electric utilities and contribute to the PSC Staff reports in cases regarding demand-side analysis and street lighting. I am also involved in the review of the electric utilities filings related to the Missouri Energy Efficiency Investment Act of 2009.

HOJONG KANG

TESTIMONY AND REPORTS
BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION

File Number	Company	Issues
ER-2010-0355	Kansas City Power & Light Company	DSM Prudence LED Street and Area Lighting
ER-2010-0356	KCP&L Greater Missouri Operations Company	DSM Prudence LED Street and Area Lighting
ER-2011-0004	The Empire District Electric Company	DSM Prudence LED Street and Area Lighting
EO-2011-0066	The Empire District Electric Company	Electric Utility Resource Planning Compliance Filing
ER-2011-0028	Ameren Missouri	LED Street and Area Lighting
EO-2011-0271	Ameren Missouri	Electric Utility Resource Planning Compliance Filing
EO-2012-0009	KCP&L Greater Missouri Operations Company	Demand-Side Programs Investment Mechanism
EO-2012-0142	Ameren Missouri	Demand-Side Programs Investment Mechanism
ER-2012-0166	Ameren Missouri	Annualization of Energy Efficiency Program Impacts LED Street and Area Lighting
ER-2012-0174	Kansas City Power & Light Company	DSM Prudence LED Street and Area Lighting
ER-2012-0175	KCP&L Greater Missouri Operations Company	DSM Prudence LED Street and Area Lighting
EO-2014-0030	The Empire District Electric Company	Demand-Side Programs Investment Mechanism
ER-2014-0258	Ameren Missouri	Pre-MEEIA Demand-Side Programs LED Street and Area Lighting

HOJONG KANG

File Number	Company	Issues
EO-2015-0055	Ameren Missouri	Demand-Side Programs Investment Mechanism
EO-2015-0084	Ameren Missouri	Electric Utility Resource Planning Compliance Filing

Robin Kliethermes

Present Position:

I am a Regulatory Economist in the Economic Analysis Section, of the Regulatory Review Division of the Missouri Public Service Commission. I have been employed by the Missouri Public Service Commission since March of 2012. In May of 2013, I presented on Class Cost of Service and Cost Allocation to the National Agency for Energy Regulation of Moldova (ANRE) as part of the National Association of Regulatory Utility Commissioners (NARUC) Energy Regulatory Partnership Program.

Educational Background and Work Experience:

I have a Bachelor of Science degree in Parks, Recreation and Tourism with a minor in Agricultural Economics from the University of Missouri – Columbia in 2008, and a Master of Science degree in Agricultural Economics from the same institution in 2010. Prior to joining the Commission, I was employed by the University of Missouri Extension as a 4-H Youth Development Specialist and County Program Director in Gasconade County.

I completed an online class through Bismarck State College called Energy Markets and Structures (ENRG 420), in December 2014.

Previous Testimony of Robin Kliethermes

Case No.	Company	Type of Filing	Issue
ER-2012-0166	Ameren Missouri	Staff Report	Economic Considerations
ER-2012-0174	Kansas City Power& Light	Staff Report	Economic Considerations
ER-2012-0175	KCP&L Greater Missouri Operations Company ("GMO")	Staff Report	Economic Considerations & Large Power Revenues
ER-2012-0345	Empire District Electric Company	Staff Report	Economic Considerations, Non-Weather Sensitive Classes & Energy Efficiency
HR-2014-0066	Veolia Kansas City	Staff Report	Revenue by Class and Class Cost of Service
GR-2014-0086	Summit Natural Gas	Staff Report	Large Customer Revenues
GR-2014-0086	Summit Natural Gas	Rebuttal	Large Customer Revenues
EC-2014-0316	City of O'Fallon Missouri and City of Ballwin, Missouri v. Union Electric Company d/b/a Ameren Missouri	Staff Memorandum	Overview of Case
EO-2014-0151	KCP&L Greater Missouri Operations Company ("GMO")	Staff Recommendation	Renewable Energy Standard Rate Adjustment Mechanism (RESRAM)
ER-2014-0258	Ameren Missouri	Staff Report	Rate Revenue by Class, Class Cost of Service study, Residential Customer Charge
ER-2014-0258	Ameren Missouri	Rebuttal	Weather normalization adjustment to class billing units

Sarah L. Kliethermes

MoPSC Employment Experience

Regulatory Economist III (July 2013 – Present)
Economic Analysis Section, Energy Unit, Tariff, Safety, Economic and Engineering Analysis Department of the Missouri Public Service Commission. In this position my duties include providing analysis and recommendations in the areas of RTO and ISO transmission, rate design, class cost of service, tariff compliance and design, and energy efficiency mechanism and tariff design. I also continue to provide legal advice and assistance regarding generating station and environmental control construction audits and electric utility regulatory depreciation.

My prior positions in the Commission's General Counsel's Office, which was reorganized as the Staff Counsel's Office, consisted of leading major rate case litigation and settlement and presenting Staff's position to the Commission, and providing legal advice and assistance primarily in the areas of depreciation, cost of service, class cost of service, rate design, tariff issues, resource planning, accounting authority orders, construction audits, rulemakings and workshops, fuel adjustment clauses, document management and retention, and customer complaints. Those positions were:
Senior Counsel (September 2011 – July 2013)
Associate Counsel (September 2009 – September 2011)
Legal Counsel (September 2007 – September 2009)
Legal Intern (May 2006 – September 2007)

Testimony

Contributor to Staff Cost of Service Report, regarding Noranda revenues, Staff Class Cost of Service and Rate Design Report, regarding Class Cost of Service; prefiled Rebuttal, regarding Class Cost of Service and Noranda rate design request in Case No. ER-2014-0214-0258, In the Matter of Union Electric Company d/b/a Ameren Missouri for Authority to File Tariffs to Increase Rates.

Provided at hearing, as well as prefiled Rebuttal and Surrebuttal, regarding energy price efficiency and transmission, in Case No. EA-2014-0207, Application of Grain Belt Express Clean Line LLC for a Certificate of Convenience and Necessity.

Contributor to Staff recommendation concerning Ameren Missouri municipal lighting, in Case No. EC-2014-0316, City of O'Fallon, Missouri, and City of Ballwin, Missouri, Complainants v. Union Electric Company d/b/a Ameren Missouri, Respondent.

Contributor to Staff Report, regarding a requested Certificate of Convenience and Necessity, a requested Special Contract tariff sheet, and tariff review, in Case No. HR-2014-0066, In the Matter of Veolia Energy Kansas City, Inc for Authority to File Tariffs to Increase Rates.

Provided at hearing, as well as prefiled Rebuttal and Surrebuttal, regarding average wholesale energy prices, in Case No. EC-2014-0224, Noranda Aluminum, Inc., et al., Complainants, v. Union Electric Company d/b/a Ameren Missouri, Respondent.

Rebuttal, regarding DSIM tariff design, margin rate calculation, and customer-related issues, in Case No. ER-2014-0095, Kansas City Power & Light application under the Missouri Energy Efficiency Investment Act. Case resolved by stipulation.

Contributor to Staff recommendation concerning KCP&L Greater Missouri Operations Company's Application for a Renewable Energy Standard Rate Adjustment Mechanism, in Case No. EO-2014-0151, addressing issues of customer notice and tariff design. Staff recommendation to approve compliance tariffs.

RELATED TRAINING AND EXPERIENCE

Participant in Missouri's Comprehensive Statewide Energy Plan working group on Energy Pricing and Rate Setting Processes.

Presented:
Ratemaking Basics (Sept. 14, 2012)
Fundamentals of Ratemaking at the MoPSC (October 8, 2014)

Attended:
Net Metering presented by Ralph Zarumba (December, 9, 2014)
Fourth Annual Public Utility Law Symposium (October 17, 2014)
Electricity Energy Storage Sources (August 29, 2014)
Combined Heat & Power: Planning, Design and Operation (August 11, 2014)
Today's U.S. Electric Power Industry, the Smart Grid, ISO Markets & Wholesale Power Transactions (July 29-30)
MISO Markets & Settlements Training for OMS and ERSC Commissioners & Staff (Jan. 27 – 28, 2014)
Validating Settlement Charges in New SPP Integrated Marketplace (July 22, 2013)
PSC Transmission Training (May 14 – 16, 2013)
Grid School (March 4 – 7, 2013)
Specialized Technical Training - Electric Transmission (April 18 – 19, 2012)
Legal Practice Before the Missouri Public Service Commission (Sept. 1, 2011)
Renewable Energy Finance Forum (Sept. 29 – Oct 3, 2010)
The New Energy Markets: Technologies, Differentials and Dependencies (June 16, 2011)
Mid-American Regulatory Conference Annual Meeting (June 5 – 8, 2011)
Utility Basics (Oct. 14 – 19, 2007)

EDUCATION

Studying Energy Transmission at Bismarck State College, online (2014 – Present)
Licensed to Practice Law in Missouri, MoBar # 60024 (Summer 2007).
Juris Doctorate, University of Missouri, Columbia, Missouri (2004 – 2007).
Bachelor of Science in Historic Preservation, Cum Laude, minor in Architectural Design, Southeast Missouri State University, Cape Girardeau, Missouri (2002 – 2004).
2000 – 2002: Studied Architecture and English Literature at Drury University, Springfield, Missouri.
2013 Economics courses at Columbia College, Jefferson City campus.

OTHER EMPLOYMENT EXPERIENCE

Law Clerk, Contracting and Organization Research Institute. Performed legal research; analyzed, described, and categorized contracts.

Paid Intern, Southeast Missouri State University. Accessioned and organized artifact collections for the Missouri Department of Natural Resources, Division of State Parks and Historic Sites.

Intermediate Clerk, Missouri Department of Elementary and Secondary Education. Responsibilities included organizing and managing various forms of data.

SHAWN E. LANGE

PRESENT POSITION:

I am a Utility Engineering Specialist III in the Engineering Analysis Section, Energy Unit, Utility Operations Department, Regulatory Review Division.

EDUCATIONAL BACKGROUND AND WORK EXPERIENCE:

In December 2002, I received a Bachelor of Science Degree in Mechanical Engineering from the University of Missouri, at Rolla now known as the Missouri University of Science and Technology. I joined the Commission Staff in January 2005. I am a registered Engineer-in-Training in the State of Missouri. I have spoke at NCDC's workshop on alternative climate normals.

TESTIMONY FILED:

Case Number	Utility	Testimony	Issue
ER-2005-0436	Aquila Inc.	Direct	Weather Normalization
		Rebuttal	Weather Normalization
		Surrebuttal	Weather Normalization
ER-2006-0314	Kansas City Power & Light Company	Direct	Weather Normalization
		Rebuttal	Weather Normalization
ER-2006-0315	Empire District Electric Company	Direct	Weather Normalization
		Surrebuttal	Weather Normalization
ER-2007-0002	Union Electric Company d/b/a AmerenUE	Direct	Weather Normalization
ER-2007-0004	Aquila Inc.	Direct	Weather Normalization
ER-2007-0291	Kansas City Power & Light Company	Staff Report	Weather Normalization
		Rebuttal	Weather Normalization
ER-2008-0093	Empire District Electric Company	Staff Report	Weather Normalization
ER-2008-0318	Union Electric Company d/b/a AmerenUE	Staff Report	Weather Normalization
ER-2009-0089	Kansas City Power & Light Company	Staff Report	Net System Input
ER-2009-0090	KCP&L Greater Missouri Operations Company	Staff Report	Net System Input

Shawn E. Lange

Case Number	Utility	Testimony	Issue
ER-2010-0036	Union Electric Company d/b/a AmerenUE	Staff Report	Net System Input
ER-2010-0130	Empire District Electric Company	Staff Report	Variable Fuel Costs
		Surrebuttal	Variable Fuel Costs
ER-2010-0355	Kansas City Power & Light Company	Staff Report	Variable Fuel Costs
ER-2010-0356	KCP&L Greater Missouri Operations Company	Staff Report	Engineering Review-Sibley 3 SCR
ER-2011-0004	Empire District Electric Company	Staff Report	Variable Fuel Costs
ER-2011-0028	Union Electric Company d/b/a Ameren Missouri	Staff Report	Net System Input
ER-2012-0166	Union Electric Company d/b/a Ameren Missouri	Staff Report	Weather Normalization
		Surrebuttal	Weather Normalization Maryland Heights In-Service
ER-2012-0174	Kansas City Power & Light Company	Staff Report	Weather Normalization Net System Input Variable Fuel Costs
		Surrebuttal	Weather Normalization
ER-2012-0175	KCP&L Greater Missouri Operations Company	Staff Report	Weather Normalization Net System Input
		Surrebuttal	Weather Normalization
ER-2012-0345	Empire District Electric Company	Rebuttal	Interim Rates
		Staff Report	Weather Normalization
EA-2014-0223	Complaint of Noranda Aluminum	Rebuttal	Weather Normalization
EA-2014-0207	Grain Belt Express CCN	Rebuttal	Safety Interconnection Studies
		Surrebuttal	Environmental Impacts
ER-2014-0258	Union Electric Company d/b/a Ameren Missouri	Staff Report	Variable Fuel Costs Net System Input

Erin L. Maloney

Missouri Public Service Commission, Jefferson City, MO
January 2005 – Present
Utility Engineering Specialist III
Utility Operations/Tariff, Safety, Economic, and Engineering Analysis

Previous Position

Electronic Data Systems, Kansas City, Missouri
August 1995 – November 2002
System Engineer

Education

Bachelor of Science Mechanical Engineering
University of Las Vegas, Nevada, May 1992

Previous Testimony Filed Before the Commission

File Number	Type of Testimony	Issue
ER-2014-0258	Staff Report	Purchased Power Prices
HR-2014-0066	Direct, Rebuttal	Production Adjustment Clause
EO-2012-0135	Rebuttal	Kansas City Power & Light Company Application for Continued Participation in Southwest Power Pool Inc. Regional Transmission Organization
EO-2012-0136	Rebuttal	KCP&L Greater Missouri Operations Inc. Application for Continued Participation in Southwest Power Pool Inc. Regional Transmission Organization
ER-2012-0175	Staff Report	GMO Rate District Fuel Allocation
ER-2012-0174	Staff Report, Rebuttal	Purchased Power Prices, Missouri Flood AAO
ER-2012-0166	Staff Report	Fuel and Purchased Power Prices
ER-2011-0028	Rebuttal	Fuel and Purchased Power Prices
ER-2011-0028	Staff Report	Fuel and Purchased Power Prices
ER-2010-0356	Staff Report	Purchased Power Prices
ER-2010-0355	Staff Report, Surrebuttal	Purchased Power Prices

Maloney Credentials

File Number	Type of Testimony	Issue
ER-2010-0036	Staff Report, Rebuttal	Fuel and Purchased Power Prices
ER-2009-0089	Staff Report	Allocation Factor for Fuel & Purchased Power
ER-2009-0090	Staff Report	Purchased Power Prices
ER-2008-0318	Staff Report, Rebuttal, Surrebuttal	Fuel and Purchased Power Prices
ER-2008-0093	Staff Report	System Losses and Jurisdictional Demand and Energy Allocation
ER-2007-0291	Staff Report	System Losses and Jurisdictional Demand and Energy Allocation
ER-2007-0004	Direct	System Losses and Jurisdictional Demand and Energy Allocation
ER-2007-0002	Direct	System Losses and Jurisdictional Demand and Energy Allocation
ER-2006-0314	Direct, Rebuttal, Surrebuttal, True-up Direct	System Losses and Jurisdictional Demand and Energy Allocation
ER-2006-0315	Direct	System Losses and Jurisdictional Demand and Energy Allocation
ER-2005-0436	Direct	Reliability

Brooke M. Richter

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 May 2014.

Education Background and Work Experience:

I received a Bachelor of Science degree in Accounting from Lincoln University, in Jefferson City, MO in May of 2012. I then continued to further my education and received my Masters of Business Administration with an emphasis in Accounting in December 2013. In earning these degree's I completed numerous core Accounting and Business classes. Prior to joining the Commission, I was employed by the State of Missouri - Department of Natural Resources from June 2013 to May 2014 as an Account Specialist I. My duties entailed: reviewing and monitoring expense account forms to ensure employees followed correct procedures, prepared and set up project and job codes so they could be coded correctly on employee's time sheets, analyzed and prepared necessary cash draws, and also prepared financial information or reports to facilitate budget information and execution.

Case Participation:

Company Name	Case Number(s)	Testimony/Issues

John A. Robinett

I am employed as a Utility Engineering Specialist III for the Missouri Public Service Commission (Commission). I began employment with the Commission in April of 2010. In May of 2008, I graduated from the University of Missouri-Rolla (now Missouri University of Science and Technology) with a Bachelor of Science degree in Mechanical Engineering.

During my time as an undergraduate, I was employed as an engineering intern for the Missouri Department of Transportation (MoDOT) in their Central Laboratory located in Jefferson City, Missouri for three consecutive summers. During my time with MoDOT, I performed various qualification tests on materials for the Soil, Aggregate, and General Materials sections. A list of duties and tests performed are below:

- Compressive strength testing of 4" and 6" concrete cylinders and fracture analysis
- Graduations of soil, aggregate, and reflective glass beads
- Sample preparations of soil, aggregate, concrete, and steel
- Flat and elongated testing of aggregate
- Micro-deval and LA testing of aggregate
- Bend testing of welded wire and rebar
- Tensile testing of welded, braided cable, and rebar
- Hardness testing of fasteners (plain black and galvanized washers, nuts, and bolts)
- Proof loading and tensile testing of bolts
- Sample collection from active road constructions sites
- Set up and performed the initial testing on a new piece of equipment called a Linear Traverse / Image Analysis
- Wrote operators manual for the Linear Traverse / Image Analysis Machine
- Trained a fulltime employee on how to operate the machine prior to my return to school
- Assisted in batching concrete mixes for testing, mixing the concrete, slump cone testing, percent air testing, and specimen molding of cylinders and beams

Upon graduation, I accepted a position as an Engineer I in the Product Evaluation Group for Hughes Christensen Company, a division of Baker Hughes, Inc. (Baker), an oil field service company. During my employment with Baker, I performed failure analysis on oil field drill bits as well as composed findings reports which were forwarded to the field engineers in order for them to report to the company the conclusions of the failure causes.

JOHN A. ROBINETT
SUMMARY OF CASE PARTICIPATION

Listed below are the cases in which I have supplied depreciation rates accompanied by a signed affidavit.

Company	Case Number	Issue
West 16th Street Sewer Company, W.P.C. Sewer Company, Village Water and Sewer Company, Inc. and Raccoon Creek Utility Operating Company, Inc.	SM-2015-0014	Depreciation Rate Adoption
Brandco Investments LLC and Hillcrest Utility Operating Company, Inc.	WO-2014-0340	Depreciation Rate Adoption, Rebuttal Testimony
Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities	GR-2014-0152	Direct, Rebuttal, Surrebuttal and Live Testimony
Summit Natural Gas of Missouri, Inc	GR-2014-0086	Depreciation Study, Direct and Rebuttal Testimony
P.C.B., Inc.	SR-2014-0068	Depreciation Review
M.P.B., Inc.	SR-2014-0067	Depreciation Review
Roy-L Utilities	WR-2013-0543	Depreciation Review
Roy-L Utilities	SR-2013-0544	Depreciation Review
Missouri Gas Energy Division of Laclede Gas Company	GR-2014-0007	Depreciation Study, Direct and Rebuttal Testimony
Central Rivers Wastewater Utility, Inc	SA-2014-00005	Depreciation Rate Adoption
Empire District Electric Company	ER-2012-0345	Depreciation Study, Direct, Rebuttal, and Surrebuttal Testimony
Empire District Electric Company	WR-2012-0300	Depreciation Review
Laclede Gas Company	GO-2012-0363	Depreciation Authority Order Rebuttal, Surrebuttal and Live Testimony
Moore Bend Water Company, Inc. sale to Moore Bend Water Utility, LLC (Water)	WM-2012-0335	Depreciation Rate Adoption
Oakbrier Water Company, Inc.	WR-2012-0267	Depreciation Review
Lakeland Heights Water Co., Inc.	WR-2012-0266	Depreciation Review
R.D. Sewer Co., L.L.C.	SR-2012-0263	Depreciation Review
Canyon Treatment Facility, LLC	SA-2010-0219	Depreciation Rate Adoption-CCN
Taney County Water, LLC	WR-2012-0163	Depreciation Review
Sale of Saddlebrooke Water and Sewer Infrastructure, LLC to Missouri American Water Company (Sewer)	SA-2012-0067	Rebuttal Testimony
Sale of Saddlebrooke Water and Sewer Infrastructure, LLC to Missouri American Water Company (Water)	WA-2012-0066	Rebuttal Testimony

JOHN A. ROBINETT
SUMMARY OF CASE PARTICIPATION

Company	Case Number	Issue
Midland Water Company, Inc.	WR-2012-0031	Depreciation Review
Sale of KMB Utility Corporation to Algonquin Water Resources of Missouri, LLC, d/b/a Liberty Water (Sewer)	SO-2011-0351	Depreciation Rate Adoption
Sale of KMB Utility Corporation to Algonquin Water Resources of Missouri, LLC, d/b/a Liberty Water (Water)	WO-2011-0350	Depreciation Rate Adoption
Sale of Noel Water Company, Inc. to Algonquin Water Resources of Missouri, LLC, d/b/a Liberty Water (Water)	WO-2011-0328	Depreciation Rate Adoption
Sale of Taney County Utilities Corporation to Taney County Water, LLC (Water)	WM-2011-0143	Depreciation Rate Adoption
Empire District Electric Company	ER-2011-0004	Depreciation Study, Direct, Rebuttal, and Surrebuttal Testimony
Rex Deffenderfer Enterprises, Inc.	WR-2011-0056	Depreciation Review
Tri-States Utility, Inc	WR-2011-0037	Depreciation Review
Southern Missouri Gas Company, L.P.	GE-2011-0096	Depreciation Study Waiver
Southern Missouri Gas Company, L.P.	GR-2010-0347	Depreciation Review
KMB Utility Corporation (Sewer)	SR-2010-0346	Depreciation Review
KMB Utility Corporation (Water)	WR-2010-0345	Depreciation Review
Middlefork Water Company	WR-2010-0309	Depreciation Review

David C. Roos

Present Position: I am a Regulatory Economist III in the Energy Resource Analysis Section, Energy Department, Operations Division of the Missouri Public Service Commission.

Educational Background and Work Experience:

In May 1983, I graduated from the University of Notre Dame, Notre Dame, Indiana, with a Bachelor of Science Degree in Chemical Engineering. I also graduated from the University of Missouri in December 2005, with a Master of Arts in Economics. I have been employed at the Missouri Public Service Commission as a Regulatory Economist III since March 2006. I began my employment with the Commission in the Economics Analysis section where my responsibilities included class cost of service and rate design. In 2008, I moved to the Energy Resource Analysis section where my testimony and responsibility topics include energy efficiency, resource analysis, and fuel adjustment clauses. Prior to joining the Public Service Commission I taught introductory economics and conducted research as a graduate teaching assistant and graduate research assistant at the University of Missouri. Prior to the University of Missouri, I was employed by several private firms where I provided consulting, design, and construction oversight of environmental projects for private and public sector clients.

Previous Cases

Company	Case No.
Empire District Electric Company	ER-2006-0315
AmerenUE	ER-2007-0002
Aquila Inc.	ER-2007-0004
Kansas City Power and Light	ER-2007-0291
AmerenUE	EO-2007-0409

David C. Roos

Company	Case No.
Empire District Electric Company	ER-2008-0093
Kansas City Power and Light	ER-2008-0034
Greater Missouri Operations	HR-2008-0340
Greater Missouri Operations	ER-2009-0091
Greater Missouri Operations	EO-2009-0115
Greater Missouri Operations	EE-2009-0237
Greater Missouri Operations	EO-2009-0431
Empire District Electric Company	ER-2010-0105
Greater Missouri Operations	EO-2010-0002
AmerenUE	ER-2010-0036
AmerenUE	ER-2010-0044
Empire District Electric Company	EO-2010-0084
Empire District Electric Company	ER-2010-0105
AmerenUE	ER-2010-0165
Greater Missouri Operations	EO-2010-0167
AmerenUE	EO-2010-0255
Greater Missouri Operations (Aquila)	EO-2008-0216
Ameren Missouri	ER-2011-0028
Empire District Electric Company	EO-2011-0066
Empire District Electric Company	EO-2011-0285
Ameren Missouri	EO-2012-0074
Greater Missouri Operations	EO-2012-0009
Ameren Missouri	EO-2012-0142
Ameren Missouri	ER-2012-0166
Greater Missouri Operations	EO-2013-0325
Ameren Missouri	EO-2013-0407
Empire District Electric Company	EO-2014-0057
Greater Missouri Operations	EO-2014-0256

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 and Employment Background:

I earned 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.

Case Participation:

Company Name	Case Number(s)	Testimony/Issues
Summit Natural Gas of Missouri, Inc.	GR-2014-0086	Plant in Service, Depreciation Reserve, Gas Stored Inventory, Prepayments and Materials and Supplies Inventory, Customer Advances, Customer Deposits, Payroll, Payroll Taxes, 401(k), and Other Employee Benefit Costs, Incentive Compensation and Bonuses, Customer Deposit Interest Expense, Maintenance Normalization Adjustments, Advertising Expense, Regulatory Expenses, Dues, and Rent Expense
Lake Region Water and Sewer	WR-2013-0461 SR-2013-0459	Plant in Service, Depreciation Reserve, Materials and Supplies Inventory, Customer Advances, Contributions in Aid of Construction, Purchase Power, Chemicals, Testing Expense, Supplies and Materials, Tools and Shop Supplies, Insurance, Office Supplies, Telephone, License and Permits, Property Tax

Michael L. Stahlman

Education

2009	M. S., Agricultural Economics, University of Missouri, Columbia.
2007	B.A., Economics, Summa Cum Laude, Westminster College, Fulton, MO.

Professional Experience

2010 -	Regulatory Economist, Missouri Public Service Commission
2007 – 2009	Graduate Research Assistant, University of Missouri
2008	Graduate Teaching Assistant, University of Missouri
2007	American Institute for Economic Research (AIER) Summer Fellowship Program
2006	Price Analysis Intern, Food and Agricultural Policy Research Institute (FAPRI), Columbia, MO
2006	Legislative Intern for State Representative Munzlinger
2005 – 2006	Certified Tutor in Macroeconomics, Westminster College, Fulton, MO
1998 – 2004	Engineering Watch Supervisor, United States Navy

Expert Witness Testimony

Union Electric Company d/b/a AmerenUE — GR-2010-0363
In the Matter of Union Electric Company d/b/a AmerenUE for Authority to File Tariffs Increasing Rates for Natural Gas Service Provided to Customers in the Company's Missouri Service Area

Union Electric Company d/b/a Ameren Missouri — GT-2011-0410
In the Matter of the Union Electric Company's (d/b/a Ameren Missouri) Gas Service Tariffs Removing Certain Provisions for Rebates from Its Missouri Energy Efficient Natural Gas Equipment and Building Shell Measure Rebate Program

KCP&L Great Missouri Operations Company — EO-2012-0009
In the Matter of KCP&L Greater Missouri Operations Company's Notice of Intent to File an Application for Authority to Establish a Demand-Side Programs Investment Mechanism

Union Electric Company d/b/a Ameren Missouri — EO-2012-0142
In the Matter of Union Electric Company d/b/a Ameren Missouri's Filing to Implement Regulatory Changes Furtherance of Energy Efficiency as Allowed by MEEIA

Kansas City Power & Light Company — EO-2012-0323
In the Matter of the Resource Plan of Kansas City Power & Light Company

KCP&L Great Missouri Operations Company — EO-2012-0324
In the Matter of the Resource Plan of KCP&L Greater Missouri Operations Company

Kansas City Power & Light Company, KCP&L Great Missouri — EA-2013-0098
Operations Company, and Transource Missouri — EO-2012-0367
In the Matter of the Application of Transource Missouri, LLC for a Certificate of Convenience and Necessity Authorizing it to Construct, Finance, Own, Operate, and Maintain the Iatan-Nashua and Sibley-Nebraska City Electric Transmission Projects

Kansas City Power & Light Company EO-2012-0135
KCP&L Great Missouri Operations Company EO-2012-0136
In the Matter of the Application of Kansas City Power & Light Company [KCP&L Great Missouri Operations Company] for Authority to Extend the Transfer of Functional Control of Certain Transmission Assets to the Southwest Power Pool, Inc.

Kansas City Power & Light Company EU-2014-0077
KCP&L Great Missouri Operations Company
In the Matter of the Application of Kansas City Power & Light Company and KCP&L Greater Missouri Operations Company for the Issuance of an Accounting Authority Order relating to their Electrical Operations and for a Contingent Waiver of the Notice Requirement of 4 CSR 240-4.020(2)

Kansas City Power & Light Company EO-2014-0095
In the Matter of Kansas City Power & Light Company's Notice of Intent to File an Application for Authority To Establish a Demand-Side Programs Investment Mechanism

Veolia Energy Kansas City, Inc HR-2014-0066
In the Matter of Veolia Energy Kansas City, Inc for Authority to File Tariffs to Increase Rates

Grain Belt Express Clean Line, LLC EA-2014-0207
In the Matter of the Application of Grain Belt Express Clean Line LLC for a Certificate of Convenience and Necessity Authorizing It to Construct, Own, Operate, Control, Manage, and Maintain a High Voltage, Direct Current Transmission Line and an Associated Converter Station Providing an Interconnection on the Maywood - Montgomery 345 kV Transmission Line

Union Electric Company d/b/a Ameren Missouri ER-2014-0258
In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariff to Increase Its Revenues for Electric Service

Selected Manuscripts and Posters

Stahlman, Michael and Laura M.J. McCann. "Technology Characteristics, Choice Architecture and Farmer Knowledge: The Case of Phytase." Agriculture and Human Values (2012) 29:371-379.

Stahlman, Michael. "The Amorality of Signals." Awarded in top 50 authors for SEVEN Fund essay competition, "The Morality of Profit."

Stahlman, Michael, Laura M.J. McCann, and Haluk Gedikoglou. "Adoption of Phytase by Livestock Farmers." Selected poster at the American Agricultural Economics Association Annual Meeting, Orlando, FL, July 27-29, 2008. Also presented at the USDA/CSREES Annual Meeting in St. Louis, MO in February 2009.

McCann, Laura, Haluk Gedikoglu, Bob Broz, John Lory, Ray Massey, and Michael Stahlman. "Farm Size and Adoption of BMPs by AFOs." Selected poster at the 5th National Small Farm Conference in Springfield, IL in September 2009.

Credentials and Background of

Seoung Joun Won

I am currently employed as a Regulatory Economist III in the Energy Economic Analysis Section of the Utility Operation Department, Regulatory Review Division of the Missouri Public Service Commission. I have been employed at the Missouri Public Service Commission since May 2010.

I received my Bachelor of Arts, Master of Arts, and Doctor of Philosophy in Mathematics from Yonsei University in Seoul, South Korea, and earned my Doctor of Philosophy in Economics from the University of Missouri - Columbia. Also, I passed several certificate examinations for Finance Specialist in South Korea such as Enterprise Resource Planning Consultant, Financial Risk Management, Derivatives Consultant, and Financial Planner.

Prior to joining the Commission, I taught both undergraduate and graduate level mathematics at the Korean Air Force Academy and Yonsei University for 13 years. I served as the director of the Education and Technology Research Center in NeoEdu for 5 years.

My duties at the Commission include managing weather data, calculating normal weather, and analyzing revenues and developing rate designs.

List of Previous Testimony Filed

Case/File Number	Company	Issue
ER-2010-0355	Kansas City Power & Light Co.	Normal Weather Revenue
ER-2010-0356	KCP&L Greater Missouri Operations Co.	Normal Weather
GR-2010-0363	Union Electric Co. d/b/a Ameren Missouri	Normal Weather
ER-2011-0028	Union Electric Co. d/b/a Ameren Missouri	Normal Weather Revenue
ER-2011-0004	Empire District Electric Co.	Normal Weather Revenue
HR-2011-0028	Veolia Energy Kansas City, Inc	Normal Weather
ER-2012-0166	Union Electric Co. d/b/a Ameren Missouri	Normal Weather Revenue
ER-2012-0174	Kansas City Power & Light Co	Normal Weather Revenue
ER-2012-0175	KCP&L Greater Missouri Operations Co.	Normal Weather
ER-2012-0345	Empire District Electric Co.	Normal Weather Revenue
GR-2013-0171	Laclede Gas Co.	Normal Weather

Seoung Joun Won

Case/File Number	Company	Issue
HR-2014-0066	Veolia Energy Kansas City, Inc.	Normal Weather Weather Normalization
GR-2014-0086	Summit Natural Gas of Missouri, Inc.	Normal Weather
GR-2014-0152	Liberty Utilities (Midstates Natural Gas) Corp.	Normal Weather
EC-2014-0223	Noranda Aluminum, Inc., et al, Complaint v. Union Electric Co. d/b/a Ameren Missouri	Normal Weather
ER-2014-0258	Union Electric Co. d/b/a Ameren Missouri	Normal Weather Weather Normalization

MISSOURI PUBLIC SERVICE COMMISSION

STAFF REPORT

COST OF SERVICE

REVENUE REQUIREMENT

APPENDIX 2

Support for Staff
Cost of
Capital Recommendations

THE EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. ER-2014-0351

Jefferson City, Missouri
January 2015

AN ANALYSIS OF THE COST OF CAPITAL

FOR

THE EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. ER-2014-0351

SCHEDULES

BY

SHANA GRIFFIN

REGULATORY REVIEW DIVISION - UTILITY SERVICES

MISSOURI PUBLIC SERVICE COMMISSION

JANUARY 2015

The Empire District Electric Company
Case No. ER-2014-0351

List of Schedules

The Empire District Electric Company
Case No. ER-2014-0351

Federal Reserve Discount Rate and Federal Reserve Funds Rate Changes

Date	Federal Reserve Discount Rate	Federal Reserve Funds Rate
01/01/83	8.50%	
12/31/83	8.50%	
04/09/84	9.00%	
11/21/84	8.50%	
12/24/84	8.00%	
05/20/85	7.50%	
03/07/86	7.00%	
04/21/86	6.50%	
07/11/86	6.00%	
08/21/86	5.50%	
09/04/87	6.00%	
08/09/88	6.50%	
02/24/89	7.00%	
07/13/90		8.00% *
10/29/90		7.75%
11/13/90		7.50%
12/07/90		7.25%
12/18/90		7.00%
12/19/90	6.50%	
01/09/91		6.75%
02/01/91	6.00%	6.25%
03/08/91		6.00%
04/30/91	5.50%	5.75%
08/06/91		5.50%
09/13/91	5.00%	5.25%
10/31/91		5.00%
11/06/91	4.50%	4.75%
12/06/91		4.50%
12/20/91	3.50%	4.00%
04/09/92		3.75%
07/02/92	3.00%	3.25%
09/04/92		3.00%
01/01/93		
12/31/93	No Changes	No Changes
02/04/94		3.25%
03/22/94		3.50%
04/18/94		3.75%
05/17/94	3.50%	4.25%
08/16/94	4.00%	4.75%
11/15/94	4.75%	5.50%
02/01/95	5.25%	6.00%
07/06/95		5.75%
12/19/95		5.50%
01/31/96	5.00%	5.25%
03/25/97		5.50%
12/12/97	5.00%	
01/09/98	5.00%	
03/06/98	5.00%	
09/29/98		5.25%
10/15/98	4.75%	5.00%
11/17/98	4.50%	4.75%

Date	Federal Reserve Discount Rate	Federal Reserve Funds Rate
06/30/99	4.50%	5.00%
08/24/99	4.75%	5.25%
11/16/99	5.00%	5.50%
02/02/00	5.25%	5.75%
03/21/00	5.50%	6.00%
05/19/00	6.00%	6.50%
01/03/01	5.75%	6.00%
01/04/01	5.50%	6.00%
01/31/01	5.00%	5.50%
03/20/01	4.50%	5.00%
04/18/01	4.00%	4.50%
05/15/01	3.50%	4.00%
06/27/01	3.25%	3.75%
08/21/01	3.00%	3.50%
09/17/01	2.50%	3.00%
10/02/01	2.00%	2.50%
11/06/01	1.50%	2.00%
12/11/01	1.25%	1.75%
11/06/02	0.75%	1.25%
01/09/03	2.25%**	1.25%
06/25/03	2.00%	1.00%
06/30/04	2.25%	1.25%
08/10/04	2.50%	1.50%
09/21/04	2.75%	1.75%
11/10/04	3.00%	2.00%
12/14/04	3.25%	2.25%
02/02/05	3.50%	2.50%
03/22/05	3.75%	2.75%
05/03/05	4.00%	3.00%
06/30/05	4.25%	3.25%
08/09/05	4.50%	3.50%
09/20/05	4.75%	3.75%
11/01/05	5.00%	4.00%
12/13/05	5.25%	4.25%
01/31/06	5.50%	4.50%
03/28/06	5.75%	4.75%
05/10/06	6.00%	5.00%
06/29/06	6.25%	5.25%
08/17/07	5.75%	5.25%
09/18/07	5.25%	4.75%
10/31/07	5.00%	4.50%
12/11/07	4.75%	4.25%
01/22/08	4.00%	3.50%
01/30/08	3.50%	3.00%
03/16/08	3.25%	
03/18/08	2.50%	2.25%
04/30/08	2.25%	2.00%
10/08/08	1.75%	1.50%
10/28/08	1.25%	1.00%
12/30/08	0.50%	0% - .25%
02/19/10	0.75%	

* Staff began tracking the Federal Funds Rate.

**Revised discount window program begins. Reflects rate on primary credit. This revised discount window policy results in incomparability of the discount rates after January 9, 2003 to discount rates before January 9, 2003.

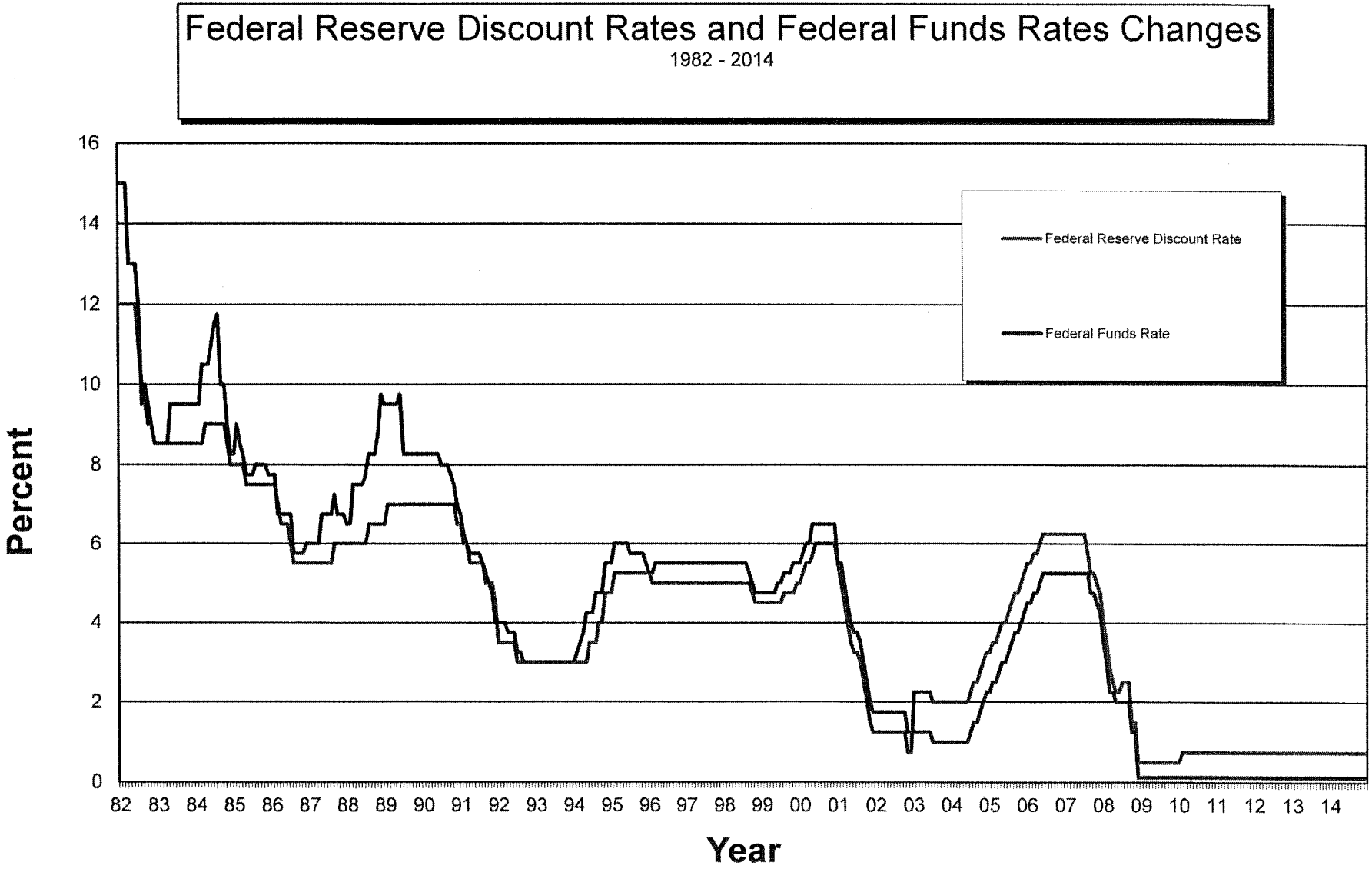
Source:

Federal Reserve Discount rate http://www.newyorkfed.org/markets/statistics/dlyrates/fedrate.html

Federal Reserve Funds rate http://www.newyorkfed.org/markets/statistics/dlyrates/fedrate.html

Note: Interest rates as of December 31 for each year are underlined.

The Empire District Electric Company
Case No. ER-2014-0351



SCHEDULE 2-2

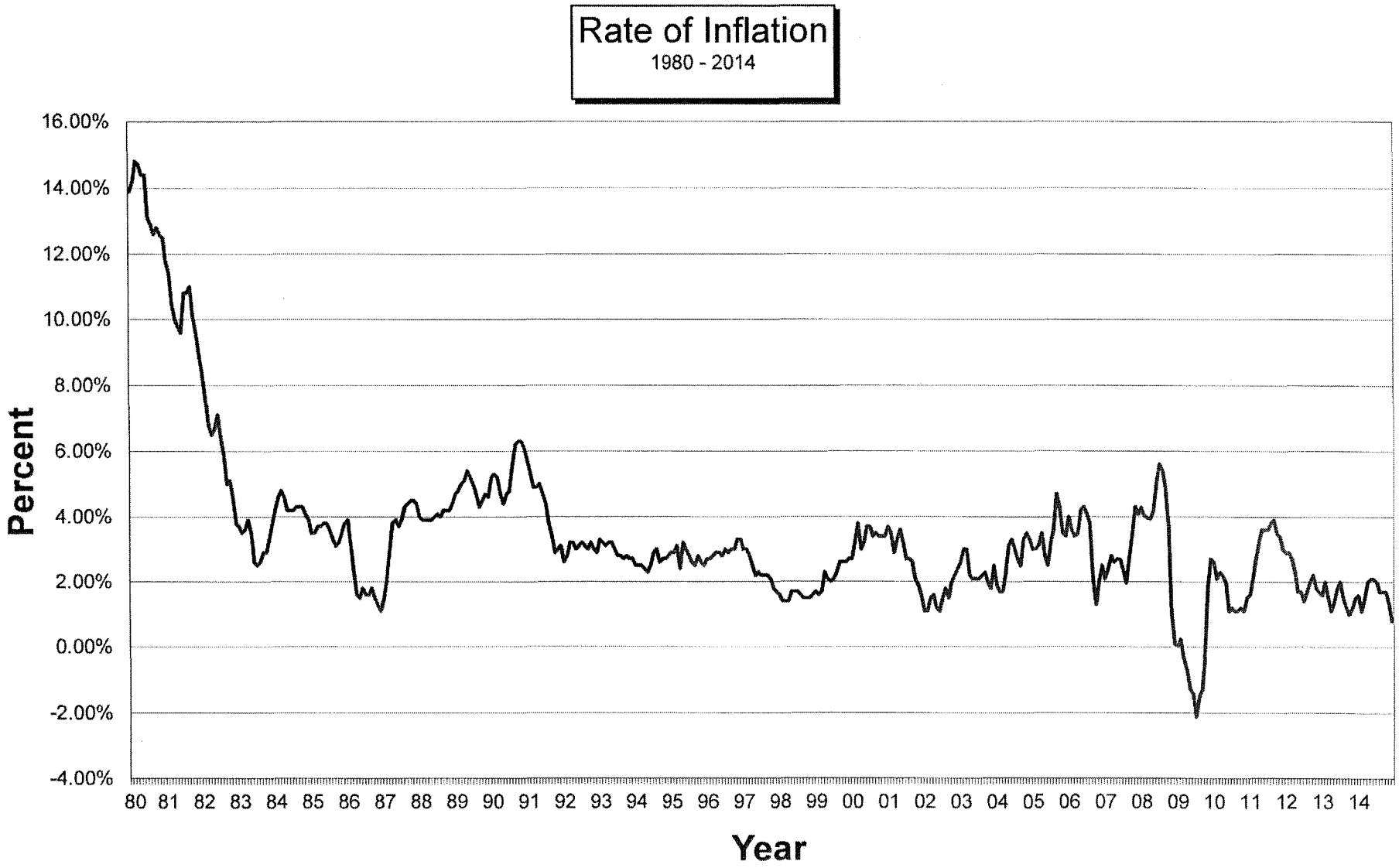
The Empire District Electric Company
Case No. ER-2014-0351

Rate of Inflation

Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)
Jan 1980	13.90	Jan 1984	4.20	Jan 1988	4.00	Jan 1992	2.60	Jan 1996	2.70	Jan 2000	2.70	Jan 2004	1.90	Jan 2008	4.30	Jan 2012	2.90
Feb	14.20	Feb	4.60	Feb	3.90	Feb	2.80	Feb	2.70	Feb	3.20	Feb	1.70	Feb	4.00	Feb	2.90
Mar	14.80	Mar	4.80	Mar	3.90	Mar	3.20	Mar	2.80	Mar	3.70	Mar	1.70	Mar	4.00	Mar	2.70
Apr	14.70	Apr	4.60	Apr	3.90	Apr	3.20	Apr	2.90	Apr	3.00	Apr	2.30	Apr	3.90	Apr	2.30
May	14.40	May	4.20	May	3.90	May	3.00	May	2.90	May	3.20	May	3.10	May	4.20	May	1.70
Jun	14.40	Jun	4.20	Jun	4.00	Jun	3.10	Jun	2.80	Jun	3.70	Jun	3.30	Jun	5.00	Jun	1.70
Jul	13.10	Jul	4.20	Jul	4.10	Jul	3.20	Jul	3.00	Jul	3.70	Jul	3.00	Jul	5.60	Jul	1.40
Aug	12.90	Aug	4.30	Aug	4.00	Aug	3.10	Aug	2.90	Aug	3.40	Aug	2.70	Aug	5.40	Aug	1.70
Sep	12.60	Sep	4.30	Sep	4.20	Sep	3.00	Sep	3.00	Sep	3.50	Sep	2.50	Sep	4.90	Sep	2.00
Oct	12.80	Oct	4.30	Oct	4.20	Oct	3.20	Oct	3.00	Oct	3.40	Oct	3.30	Oct	3.70	Oct	2.20
Nov	12.60	Nov	4.10	Nov	4.20	Nov	3.00	Nov	3.30	Nov	3.40	Nov	3.50	Nov	1.10	Nov	1.80
Dec	12.50	Dec	3.90	Dec	4.40	Dec	2.90	Dec	3.30	Dec	3.40	Dec	3.30	Dec	0.10	Dec	1.70
Jan 1981	11.80	Jan 1985	3.50	Jan 1989	4.70	Jan 1993	3.30	Jan 1997	3.00	Jan 2001	3.70	Jan 2005	3.00	Jan 2009	0.00	Jan 2013	1.60
Feb	11.40	Feb	3.50	Feb	4.80	Feb	3.20	Feb	3.00	Feb	3.50	Feb	3.00	Feb	0.20	Feb	2.00
Mar	10.50	Mar	3.70	Mar	5.00	Mar	3.10	Mar	2.80	Mar	2.90	Mar	3.10	Mar	-0.40	Mar	1.50
Apr	10.00	Apr	3.70	Apr	5.10	Apr	3.20	Apr	2.50	Apr	3.30	Apr	3.50	Apr	-0.70	Apr	1.10
May	9.80	May	3.80	May	5.40	May	3.20	May	2.20	May	3.60	May	2.80	May	-1.28	May	1.40
Jun	9.60	Jun	3.80	Jun	5.20	Jun	3.00	Jun	2.30	Jun	3.20	Jun	2.50	Jun	-1.40	Jun	1.80
Jul	10.80	Jul	3.60	Jul	5.00	Jul	2.80	Jul	2.20	Jul	2.70	Jul	3.20	Jul	-2.10	Jul	2.00
Aug	10.80	Aug	3.30	Aug	4.70	Aug	2.80	Aug	2.20	Aug	2.70	Aug	3.60	Aug	-1.50	Aug	1.50
Sep	11.00	Sep	3.10	Sep	4.30	Sep	2.70	Sep	2.20	Sep	2.60	Sep	4.70	Sep	-1.30	Sep	1.20
Oct	10.10	Oct	3.20	Oct	4.50	Oct	2.80	Oct	2.10	Oct	2.10	Oct	4.30	Oct	-0.20	Oct	1.00
Nov	9.60	Nov	3.50	Nov	4.70	Nov	2.70	Nov	1.80	Nov	1.90	Nov	3.50	Nov	1.80	Nov	1.20
Dec	8.90	Dec	3.80	Dec	4.60	Dec	2.70	Dec	1.70	Dec	1.60	Dec	3.40	Dec	2.70	Dec	1.50
Jan 1982	8.40	Jan 1986	3.90	Jan 1990	5.20	Jan 1994	2.50	Jan 1998	1.60	Jan 2002	1.10	Jan 2006	4.00	Jan 2010	2.60	Jan 2014	1.60
Feb	7.60	Feb	3.10	Feb	5.30	Feb	2.50	Feb	1.40	Feb	1.10	Feb	3.60	Feb	2.10	Feb	1.10
Mar	6.80	Mar	2.30	Mar	5.20	Mar	2.50	Mar	1.40	Mar	1.50	Mar	3.40	Mar	2.30	Mar	1.50
Apr	6.50	Apr	1.60	Apr	4.70	Apr	2.40	Apr	1.40	Apr	1.60	Apr	3.50	April	2.20	Apr	2.00
May	6.70	May	1.50	May	4.40	May	2.30	May	1.70	May	1.20	May	4.20	May	2.00	May	2.10
Jun	7.10	Jun	1.80	Jun	4.70	Jun	2.50	Jun	1.70	Jun	1.10	June	4.30	Jun	1.10	Jun	2.10
Jul	6.40	Jul	1.60	Jul	4.80	Jul	2.90	Jul	1.70	Jul	1.50	July	4.10	Jul	1.20	Jul	2.00
Aug	5.90	Aug	1.60	Aug	5.60	Aug	3.00	Aug	1.60	Aug	1.80	Aug	3.80	Aug	1.10	Aug	1.70
Sep	5.00	Sep	1.80	Sep	6.20	Sep	2.60	Sep	1.50	Sep	1.50	Sep	2.10	Sep	1.10	Sep	1.70
Oct	5.10	Oct	1.50	Oct	6.30	Oct	2.70	Oct	1.50	Oct	2.00	Oct	1.30	Oct	1.20	Oct	1.70
Nov	4.60	Nov	1.30	Nov	6.30	Nov	2.70	Nov	1.50	Nov	2.20	Nov	2.00	Nov	1.10	Nov	1.30
Dec	3.80	Dec	1.10	Dec	6.10	Dec	2.80	Dec	1.60	Dec	2.40	Dec	2.50	Dec	1.50	Dec	0.80
Jan 1983	3.70	Jan 1987	1.50	Jan 1991	5.70	Jan 1995	2.90	Jan 1999	1.70	Jan 2003	2.60	Jan 2007	2.10	Jan 2011	1.60		
Feb	3.50	Feb	2.10	Feb	5.30	Feb	2.90	Feb	1.60	Feb	3.00	Feb	2.40	Feb	2.10		
Mar	3.60	Mar	3.00	Mar	4.90	Mar	3.10	Mar	1.70	Mar	3.00	Mar	2.80	Mar	2.70		
Apr	3.90	Apr	3.80	Apr	4.90	Apr	2.40	Apr	2.30	Apr	2.20	Apr	2.60	Apr	3.20		
May	3.50	May	3.90	May	5.00	May	3.20	May	2.10	May	2.10	May	2.70	May	3.60		
Jun	2.60	Jun	3.70	Jun	4.70	Jun	3.00	Jun	2.00	Jun	2.10	Jun	2.70	Jun	3.60		
Jul	2.50	Jul	3.90	Jul	4.40	Jul	2.80	Jul	2.10	Jul	2.10	Jul	2.40	Jul	3.60		
Aug	2.60	Aug	4.30	Aug	3.80	Aug	2.60	Aug	2.30	Aug	2.20	Aug	2.00	Aug	3.80		
Sep	2.90	Sep	4.40	Sep	3.40	Sep	2.50	Sep	2.60	Sep	2.30	Sep	2.80	Sep	3.90		
Oct	2.90	Oct	4.50	Oct	2.90	Oct	2.80	Oct	2.60	Oct	2.00	Oct	3.50	Oct	3.50		
Nov	3.30	Nov	4.50	Nov	3.00	Nov	2.60	Nov	2.60	Nov	1.80	Nov	4.30	Nov	3.40		
Dec	3.80	Dec	4.40	Dec	3.10	Dec	2.50	Dec	2.70	Dec	1.90	Dec	4.10	Dec	3.00		

Source: U.S. Dept of Labor, Bureau of Labor Statistics, Consumer Price Index - All Urban Consumers, Change for 12-Month Period, Bureau of Labor Statistics, http://www.bls.gov/schedule/archives/cpi_nr.htm

The Empire District Electric Company
Case No. ER-2014-0351



SCHEDULE 3-2

The Empire District Electric Company
Case No. ER-2014-0351

Average Yields on AA, A and BBB Public Utility Bonds

Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)
Jan 1980	12.12	Jan 1984	13.40	Jan 1988	10.75	Jan 1992	8.67	Jan 1996	7.20	Jan 2000	8.22	Jan 2004	6.23	Jan 2008	6.08	Jan 2012	4.97
Feb	13.48	Feb	13.50	Feb	10.11	Feb	8.77	Feb	7.37	Feb	8.10	Feb	6.17	Feb	6.28	Feb	4.99
Mar	14.33	Mar	14.03	Mar	10.11	Mar	8.84	Mar	7.72	Mar	8.14	Mar	6.01	Mar	6.29	Mar	5.13
Apr	13.50	Apr	14.30	Apr	10.53	Apr	8.79	Apr	7.88	Apr	8.14	Apr	6.38	Apr	6.36	Apr	5.05
May	12.17	May	14.95	May	10.75	May	8.72	May	7.99	May	8.55	May	6.68	May	6.38	May	4.84
Jun	11.87	Jun	15.16	Jun	10.71	Jun	8.64	Jun	8.07	Jun	8.22	Jun	6.53	Jun	6.50	Jun	4.67
Jul	12.12	Jul	14.92	Jul	10.96	Jul	8.46	Jul	8.02	Jul	8.17	Jul	6.34	Jul	6.50	Jul	4.56
Aug	12.82	Aug	14.29	Aug	11.09	Aug	8.34	Aug	7.84	Aug	8.05	Aug	6.18	Aug	6.48	Aug	4.71
Sep	13.29	Sep	14.04	Sep	10.56	Sep	8.32	Sep	8.01	Sep	8.16	Sep	6.01	Sep	6.59	Sep	4.75
Oct	13.53	Oct	13.68	Oct	9.92	Oct	8.44	Oct	7.76	Oct	8.08	Oct	5.95	Oct	7.70	Oct	4.69
Nov	14.07	Nov	13.15	Nov	9.89	Nov	8.53	Nov	7.48	Nov	8.03	Nov	5.97	Nov	7.80	Nov	4.53
Dec	14.48	Dec	12.96	Dec	10.02	Dec	8.36	Dec	7.58	Dec	7.79	Dec	5.93	Dec	6.87	Dec	4.28
Jan 1981	14.22	Jan 1985	12.88	Jan 1989	10.02	Jan 1993	8.23	Jan 1997	7.79	Jan 2001	7.76	Jan 2005	5.80	Jan 2009	6.77	Jan 2013	4.45
Feb	14.84	Feb	13.00	Feb	10.02	Feb	8.00	Feb	7.68	Feb	7.69	Feb	5.64	Feb	6.72	Feb	4.49
Mar	14.86	Mar	13.66	Mar	10.16	Mar	7.85	Mar	7.92	Mar	7.59	Mar	5.86	Mar	6.85	Mar	4.45
Apr	15.32	Apr	13.42	Apr	10.14	Apr	7.76	Apr	8.08	Apr	7.81	Apr	5.72	Apr	6.90	Apr	4.19
May	15.84	May	12.89	May	9.92	May	7.78	May	7.94	May	7.88	May	5.60	May	6.83	May	4.36
Jun	15.27	Jun	11.91	Jun	9.49	Jun	7.68	Jun	7.77	Jun	7.75	Jun	5.39	June	6.54	Jun	4.70
Jul	15.87	Jul	11.88	Jul	9.34	Jul	7.53	Jul	7.52	Jul	7.71	Jul	5.50	July	6.15	Jul	4.90
Aug	16.33	Aug	11.93	Aug	9.37	Aug	7.21	Aug	7.57	Aug	7.57	Aug	5.51	Aug	5.80	Aug	5.00
Sep	16.89	Sep	11.95	Sep	9.43	Sep	7.01	Sep	7.50	Sep	7.73	Sep	5.54	Sep	5.60	Sep	5.05
Oct	16.76	Oct	11.84	Oct	9.37	Oct	6.99	Oct	7.37	Oct	7.64	Oct	5.79	Oct	5.64	Oct	4.94
Nov	15.50	Nov	11.33	Nov	9.33	Nov	7.30	Nov	7.24	Nov	7.61	Nov	5.88	Nov	5.71	Nov	5.04
Dec	15.77	Dec	10.82	Dec	9.31	Dec	7.33	Dec	7.16	Dec	7.86	Dec	5.83	Dec	5.86	Dec	5.09
Jan 1982	16.73	Jan 1986	10.66	Jan 1990	9.44	Jan 1994	7.31	Jan 1998	7.03	Jan 2002	7.69	Jan 2006	5.77	Jan 2010	5.83	Jan 2014	4.91
Feb	16.72	Feb	10.16	Feb	9.66	Feb	7.44	Feb	7.09	Feb	7.62	Feb	5.83	Feb	5.94	Feb	4.79
Mar	16.07	Mar	9.33	Mar	9.75	Mar	7.83	Mar	7.13	Mar	7.83	Mar	5.98	Mar	5.90	Mar	4.74
Apr	15.82	Apr	9.02	Apr	9.87	Apr	8.20	Apr	7.12	Apr	7.74	Apr	6.28	Apr	5.87	Apr	4.62
May	15.60	May	9.52	May	9.89	May	8.32	May	7.11	May	7.76	May	6.39	May	5.59	May	4.46
Jun	16.18	Jun	9.51	Jun	9.69	Jun	8.31	Jun	6.99	Jun	7.67	June	6.39	June	5.62	Jun	4.48
Jul	16.04	Jul	9.19	Jul	9.66	Jul	8.47	Jul	6.99	Jul	7.54	July	6.37	July	5.41	Jul	4.37
Aug	15.22	Aug	9.15	Aug	9.84	Aug	8.41	Aug	6.96	Aug	7.34	Aug	6.20	Aug	5.10	Aug	4.29
Sep	14.56	Sep	9.42	Sep	10.01	Sep	8.65	Sep	6.88	Sep	7.23	Sep	6.03	Sep	5.10	Sep	4.37
Oct	13.88	Oct	9.39	Oct	9.94	Oct	8.88	Oct	6.88	Oct	7.43	Oct	6.01	Oct	5.20	Oct	4.20
Nov	13.58	Nov	9.15	Nov	9.76	Nov	9.00	Nov	6.96	Nov	7.31	Nov	5.82	Nov	5.45	Nov	4.25
Dec	13.55	Dec	8.96	Dec	9.57	Dec	8.79	Dec	6.84	Dec	7.20	Dec	5.83	Dec	5.61	Dec	4.12
Jan 1983	13.46	Jan 1987	8.77	Jan 1991	9.56	Jan 1995	8.77	Jan 1999	6.87	Jan 2003	7.13	Jan 2007	5.96	Jan 2011	5.69		
Feb	13.60	Feb	8.81	Feb	9.31	Feb	8.56	Feb	7.00	Feb	6.92	Feb	5.91	Feb	5.82		
Mar	13.28	Mar	8.75	Mar	9.39	Mar	8.41	Mar	7.18	Mar	6.80	Mar	5.87	Mar	5.74		
Apr	13.03	Apr	9.30	Apr	9.30	Apr	8.30	Apr	7.16	Apr	6.68	Apr	6.01	Apr	5.76		
May	13.00	May	9.82	May	9.29	May	7.93	May	7.42	May	6.35	May	6.03	May	5.57		
Jun	13.17	Jun	9.87	Jun	9.44	Jun	7.62	Jun	7.70	Jun	6.21	June	6.34	June	5.52		
Jul	13.28	Jul	10.01	Jul	9.40	Jul	7.73	Jul	7.66	Jul	6.54	July	6.28	July	5.61		
Aug	13.50	Aug	10.33	Aug	9.16	Aug	7.86	Aug	7.86	Aug	6.78	Aug	6.28	Aug	5.26		
Sep	13.35	Sep	11.00	Sep	9.03	Sep	7.62	Sep	7.87	Sep	6.58	Sep	6.24	Sep	5.01		
Oct	13.19	Oct	11.32	Oct	8.99	Oct	7.46	Oct	8.02	Oct	6.50	Oct	6.17	Oct	5.11		
Nov	13.33	Nov	10.82	Nov	8.93	Nov	7.40	Nov	7.86	Nov	6.44	Nov	6.04	Nov	5.00		
Dec	13.48	Dec	10.99	Dec	8.76	Dec	7.21	Dec	8.04	Dec	6.36	Dec	6.23	Dec	4.96		

Source:
Mergent Bond Record (through November 2010); BondsOnline (December 2010 to present)

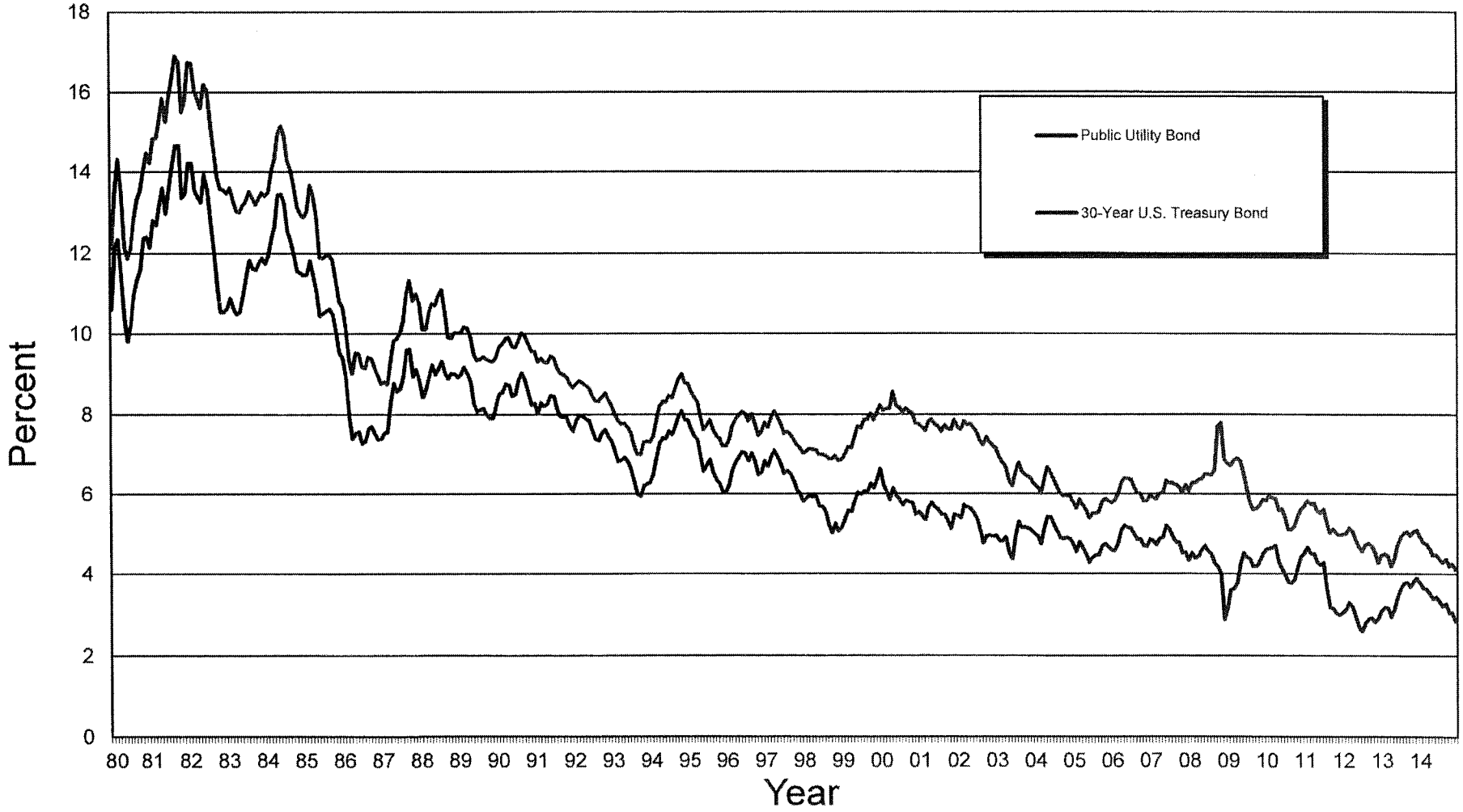
The Empire District Electric Company
Case No. ER-2014-0351
Average Yields on Thirty-Year U.S. Treasury Bonds

Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)
Jan 1980	10.60	Jan 1984	11.75	Jan 1988	8.83	Jan 1992	7.58	Jan 1996	6.05	Jan 2000	6.63	Jan 2004	4.99	Jan 2008	4.33	Jan 2012	3.03
Feb	12.13	Feb	11.95	Feb	8.43	Feb	7.85	Feb	6.24	Feb	6.23	Feb	4.93	Feb	4.52	Feb	3.11
Mar	12.34	Mar	12.38	Mar	8.63	Mar	7.97	Mar	6.60	Mar	6.05	Mar	4.74	Mar	4.39	Mar	3.28
Apr	11.40	Apr	12.65	Apr	8.95	Apr	7.96	Apr	6.79	Apr	5.85	Apr	5.14	Apr	4.44	Apr	3.18
May	10.36	May	13.43	May	9.23	May	7.89	May	6.93	May	6.15	May	5.42	May	4.60	May	2.93
Jun	9.81	Jun	13.44	Jun	9.00	Jun	7.84	Jun	7.06	Jun	5.93	Jun	5.41	Jun	4.69	Jun	2.70
Jul	10.24	Jul	13.21	Jul	9.14	Jul	7.60	Jul	7.03	Jul	5.85	Jul	5.22	Jul	4.57	Jul	2.59
Aug	11.00	Aug	12.54	Aug	9.32	Aug	7.39	Aug	6.84	Aug	5.72	Aug	5.06	Aug	4.50	Aug	2.77
Sep	11.34	Sep	12.29	Sep	9.06	Sep	7.34	Sep	7.03	Sep	5.83	Sep	4.90	Sep	4.27	Sep	2.88
Oct	11.59	Oct	11.98	Oct	8.89	Oct	7.53	Oct	6.81	Oct	5.80	Oct	4.86	Oct	4.17	Oct	2.90
Nov	12.37	Nov	11.56	Nov	9.02	Nov	7.61	Nov	6.48	Nov	5.78	Nov	4.89	Nov	4.00	Nov	2.80
Dec	12.40	Dec	11.52	Dec	9.01	Dec	7.44	Dec	6.55	Dec	5.49	Dec	4.86	Dec	2.87	Dec	2.88
Jan 1981	12.14	Jan 1985	11.45	Jan 1989	8.93	Jan 1993	7.34	Jan 1997	6.83	Jan 2001	5.54	Jan 2005	4.73	Jan 2009	3.13	Jan 2013	3.08
Feb	12.80	Feb	11.47	Feb	9.01	Feb	7.09	Feb	6.69	Feb	5.45	Feb	4.55	Feb	3.59	Feb	3.17
Mar	12.69	Mar	11.81	Mar	9.17	Mar	6.82	Mar	6.93	Mar	5.34	Mar	4.78	Mar	3.64	Mar	3.16
Apr	13.20	Apr	11.47	Apr	9.03	Apr	6.85	Apr	7.09	Apr	5.65	Apr	4.65	Apr	3.76	Apr	2.93
May	13.60	May	11.05	May	8.83	May	6.92	May	6.94	May	5.78	May	4.49	May	4.23	May	3.11
Jun	12.96	Jun	10.44	Jun	8.27	Jun	6.81	Jun	6.77	Jun	5.67	Jun	4.29	Jun	4.52	Jun	3.40
Jul	13.59	Jul	10.50	Jul	8.08	Jul	6.63	Jul	6.51	Jul	5.61	Jul	4.41	July	4.41	Jul	3.61
Aug	14.17	Aug	10.56	Aug	8.12	Aug	6.32	Aug	6.58	Aug	5.46	Aug	4.46	Aug	4.37	Aug	3.76
Sep	14.67	Sep	10.61	Sep	8.15	Sep	6.00	Sep	6.50	Sep	5.48	Sep	4.47	Sep	4.19	Sep	3.79
Oct	14.68	Oct	10.50	Oct	8.00	Oct	5.94	Oct	6.33	Oct	5.32	Oct	4.67	Oct	4.19	Oct	3.68
Nov	13.35	Nov	10.06	Nov	7.90	Nov	6.21	Nov	6.11	Nov	5.12	Nov	4.73	Nov	4.31	Nov	3.80
Dec	13.45	Dec	9.54	Dec	7.90	Dec	6.25	Dec	5.99	Dec	5.48	Dec	4.86	Dec	4.49	Dec	3.89
Jan 1982	14.22	Jan 1986	9.40	Jan 1990	8.26	Jan 1994	6.29	Jan 1998	5.81	Jan 2002	5.44	Jan 2006	4.59	Jan 2010	4.60	Jan 2014	3.77
Feb	14.22	Feb	8.93	Feb	8.50	Feb	6.49	Feb	5.89	Feb	5.39	Feb	4.58	Feb	4.62	Feb	3.66
Mar	13.53	Mar	7.96	Mar	8.56	Mar	6.91	Mar	5.95	Mar	5.71	Mar	4.73	Mar	4.64	Mar	3.62
Apr	13.37	Apr	7.39	Apr	8.76	Apr	7.27	Apr	5.92	Apr	5.67	Apr	5.06	Apr	4.69	Apr	3.52
May	13.24	May	7.52	May	8.73	May	7.41	May	5.93	May	5.64	May	5.20	May	4.28	May	3.39
Jun	13.92	Jun	7.57	Jun	8.46	Jun	7.40	Jun	5.70	Jun	5.52	Jun	5.16	Jun	4.13	Jun	3.42
Jul	13.55	Jul	7.27	Jul	8.50	Jul	7.58	Jul	5.68	Jul	5.38	July	5.13	July	3.99	Jul	3.33
Aug	12.77	Aug	7.33	Aug	8.86	Aug	7.49	Aug	5.54	Aug	5.08	Aug	5.00	Aug	3.80	Aug	3.20
Sep	12.07	Sep	7.62	Sep	9.03	Sep	7.71	Sep	5.20	Sep	4.76	Sep	4.85	Sep	3.77	Sep	3.26
Oct	11.17	Oct	7.70	Oct	8.86	Oct	7.94	Oct	5.01	Oct	4.93	Oct	4.85	Oct	3.87	Oct	3.04
Nov	10.54	Nov	7.52	Nov	8.54	Nov	8.08	Nov	5.25	Nov	4.95	Nov	4.69	Nov	4.19	Nov	3.04
Dec	10.54	Dec	7.37	Dec	8.24	Dec	7.87	Dec	5.06	Dec	4.92	Dec	4.68	Dec	4.42	Dec	2.83
Jan 1983	10.63	Jan 1987	7.39	Jan 1991	8.27	Jan 1995	7.85	Jan 1999	5.16	Jan 2003	4.94	Jan 2007	4.85	Jan 2011	4.52		
Feb	10.88	Feb	7.54	Feb	8.03	Feb	7.61	Feb	5.37	Feb	4.81	Feb	4.82	Feb	4.65		
Mar	10.63	Mar	7.55	Mar	8.29	Mar	7.45	Mar	5.58	Mar	4.80	Mar	4.72	Mar	4.51		
Apr	10.48	Apr	8.25	Apr	8.21	Apr	7.36	Apr	5.55	Apr	4.90	Apr	4.86	Apr	4.50		
May	10.53	May	8.78	May	8.27	May	6.95	May	5.81	May	4.53	May	4.90	May	4.29		
Jun	10.93	Jun	8.57	Jun	8.47	Jun	6.57	Jun	6.04	Jun	4.37	Jun	5.20	Jun	4.23		
Jul	11.40	Jul	8.64	Jul	8.45	Jul	6.72	Jul	5.98	Jul	4.93	July	5.11	Jul	4.27		
Aug	11.82	Aug	8.97	Aug	8.14	Aug	6.86	Aug	6.07	Aug	5.30	Aug	4.93	Aug	3.65		
Sep	11.63	Sep	9.59	Sep	7.95	Sep	6.55	Sep	6.07	Sep	5.14	Sep	4.79	Sep	3.18		
Oct	11.58	Oct	9.61	Oct	7.93	Oct	6.37	Oct	6.26	Oct	5.16	Oct	4.77	Oct	3.13		
Nov	11.75	Nov	8.95	Nov	7.92	Nov	6.26	Nov	6.15	Nov	5.13	Nov	4.52	Nov	3.02		
Dec	11.88	Dec	9.12	Dec	7.70	Dec	6.06	Dec	6.35	Dec	5.08	Dec	4.53	Dec	2.98		

Sources:
http://finance.yahoo.com/q/hp?s=^TYX
http://research.stlouisfed.org/fred2/data/GS30.txt

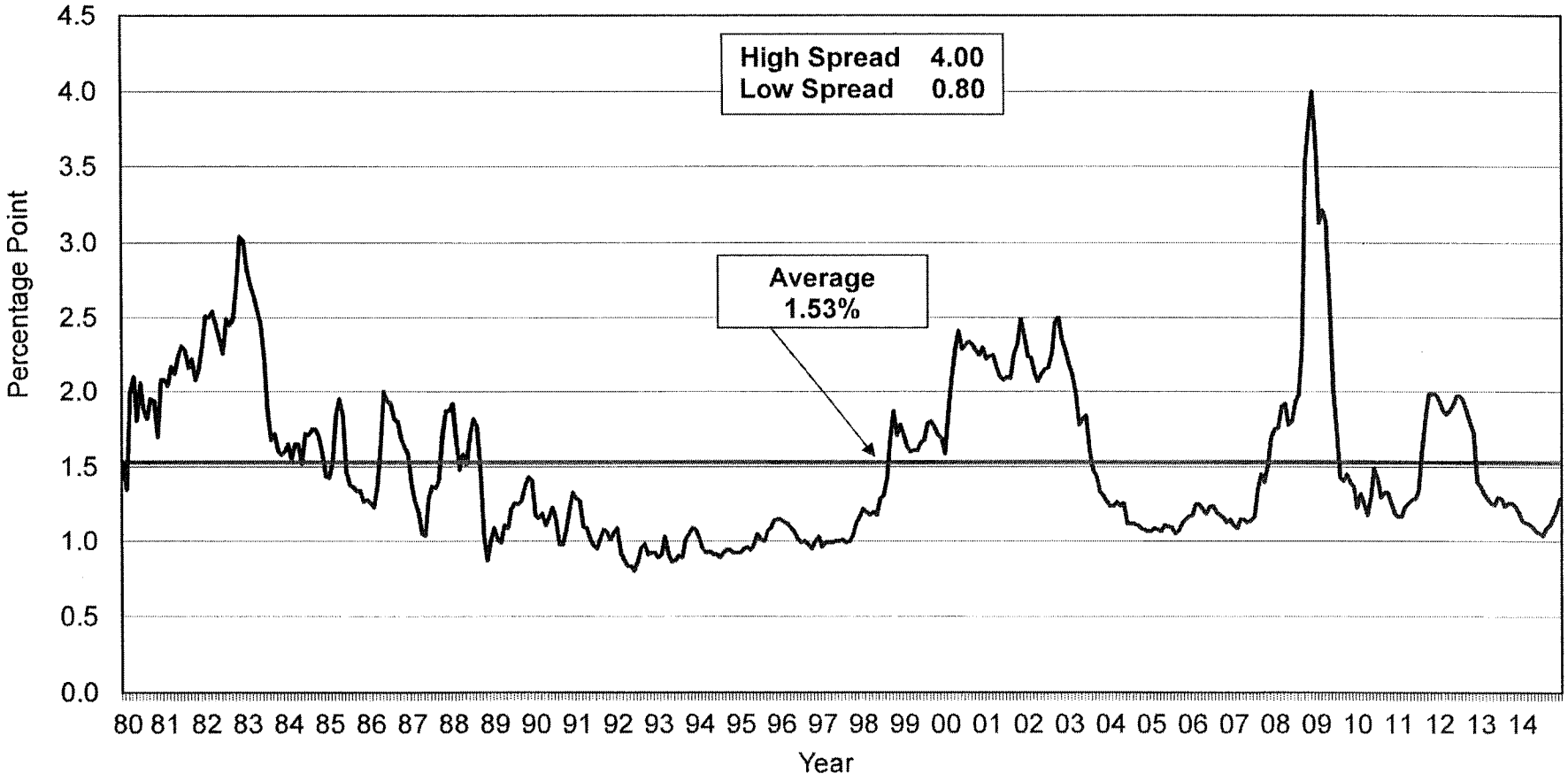
The Empire District Electric Company
Case No. ER-2014-0351

Average Yields on Public Utility Bonds and Thirty-Year U.S. Treasury Bonds (1980 - 2014)



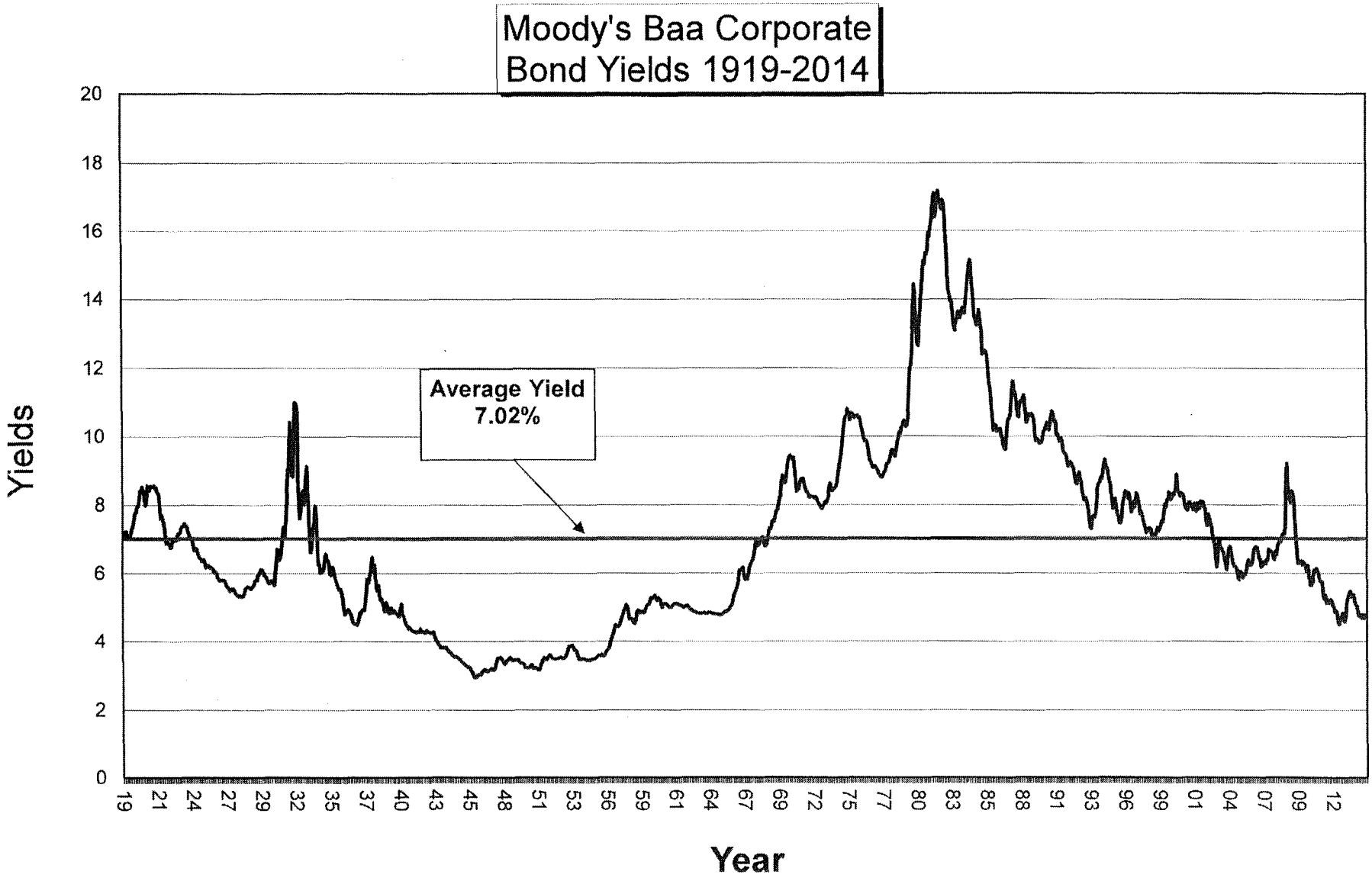
SCHEDULE 4-3

Monthly Spreads Between Yields on Public Utility Bonds and Thirty-Year U.S. Treasury Bonds (1980 - 2014)



SCHEDULE 4-4

The Empire District Electric Company
Case No. ER-2014-0351



Source: St. Louis Federal Reserve Website: http://stlouisfed.org

Schedule 4-5

The Empire District Electric Company
Case No. ER-2014-0351

Historical Consolidated Capital Structures for The Empire District Electric Company

Capital Components	2009	2010	2011	2012	2013	5-Year Average
Common Equity	$600,150,000.0	$657,624,000.0	$693,989,000.0	$717,798,000.0	$750,123,000.0	$683,936,800.0
Preferred Stock	0.0	0.0	0.0	0.0	0.0	$0.0
Long-Term Debt	640,156,000.0 *	693,072,000.0 *	692,259,000.0 *	691,626,714.0 *	743,428,274.0 *	$692,108,397.6
Short-Term Debt	50,500,000.0	24,000,000.0	12,000,000.0	24,000,000.0	4,000,000.0	$22,900,000.0
Total	$1,290,806,000.0	$1,374,696,000.0	$1,398,248,000.0	$1,433,424,714.0	$1,497,551,274.0	$1,398,945,197.6

Capital Components	2009	2010	2011	2012	2013	5-Year Average
Common Equity	46.49%	47.84%	49.63%	50.08%	50.09%	48.83%
Preferred Stock	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Long-Term Debt	49.59%	50.42%	49.51%	48.25%	49.64%	49.48%
Short-Term Debt	3.91%	1.75%	0.86%	1.67%	0.27%	1.69%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Source: Empire District Electric Company's 2009, 2010,2011, 2012 and 2013 Annual Reports.

Note: * The amount of long-term debt includes current maturities and capital leases.

SCHEDULE 5

The Empire District Electric Company
Case No. ER-2014-0351

Embedded Cost of Long-Term Debt
as of August 31, 2014 For The Empire District Electric Company

	Amount Outstanding	Annual Cost
Bonds and Unsecured Notes Series:		
7.2% Series, Due 2016	$25,000,000	$1,800,000
6.375% Series due 2018	$90,000,000	$5,737,500
5.2% Series, due in 2040	$50,000,000	$2,600,000
6.7% Sr. Notes, Series, Due 2033	$62,000,000	$4,154,000
5.8% Sr. Notes, Series, Due 7/1/2035	$40,000,000	$2,320,000
4.65% Series, Due 6/1/2020	$100,000,000	$4,650,000
5.875%, Due 2037	$80,000,000	$4,700,000
6.82% Series, Due 6/1/2036-EDG	$55,000,000	$3,751,000
3.58% Series, due 4-2-2027	$88,000,000	$3,150,400
3.73% Series, Due 5/30/2033	$30,000,000	$1,119,000
4.32% Series, Due 5/30/2043	$120,000,000	$5,184,000
Premium, Discount and Expense	-$15,909,798 [1]	$1,113,621 [1]
Total	**$724,090,202**	**$40,279,521**

Embedded Cost of Long-term Debt	**5.56%**

Source: Response to DR No. 0079

[1] Adjustment made for disallowance associated with Empire's debt expenses incurred to amend its mortgage bond indenture in order to provide additional flexibility to pay its dividend.

SCHEDULE 6

The Empire District Electric Company
Case No. ER-2014-0351

Capital Structure as of August 31, 2014
for The Empire District Electric Company

Capital Component	Dollar Amount (000's)	Percentage of Capital
Common Stock Equity	$ 775,357,807	51.71%
Preferred Stock	$ -	0.00%
Long-Term Debt	$ 724,090,202	48.29%
Short-Term Debt	$ -	0.00%
Total Capitalization	**$ 1,499,448,009**	**100.00%**

Source: Response to Staff DR No. 0079.

The Empire District Electric Company
Case No. ER-2014-0351

Criteria for Selecting Comparable Electric Utility Companies

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
SNL Financial Power Companies	Ticker	Stock Publicly Traded	Regulated Utility (EEI)	At least 50% of Plant from Electric Utility	At least 25% of Electric Plant Generation	At Least 80% of Income from Regulated Utility Operations	No Reduced Dividend Since 2011	At Least Investment Grade Credit Rating (2 of 3 agencies)	L-T Growth Coverage from at least 2 equity analysts in last 90 days and Current L-T Growth Available	No Announced Merger or Acquisition	**Comparable Company Met All Criteria**
AES Corporation	AES	Yes	NA								
ALLETE, Inc.	ALE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No		
Alliant Energy Corporation	**LNT**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Ameren Corporation	**AEE**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
American Electric Power Company	**AEP**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Atlantic Power Corporation	ATP	Yes	NA								
Avista Corporation	AVA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No		
Black Hills Corporation	BKH	Yes	Yes	No							
Calpine Corporation	CPN	Yes	NA								
CenterPoint Energy, Inc.	CNP	Yes	No								
Chesapeake Utilities Corporation	CPK	Yes	NA								
Cleco Corporation	CNL	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No		
CMS Energy Corporation	**CMS**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Consolidated Edison, Inc.	ED	Yes	Yes	Yes	No						
Covanta Holding Corporation	CVA	Yes	NA								
Dominion Resources, Inc.	D	Yes	No								
DTE Energy Company	**DTE**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Duke Energy Corporation	DUK	Yes	Yes	Yes	Yes	No					
Dynegy Inc.	DYN	Yes	NA								
Edison International	EIX	Yes	Yes	Yes	No						
El Paso Electric Company	EE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No		
Empire District Electric Company	EDE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No		
Entergy Corporation	ETR	Yes	Yes	Yes	Yes	No					
Exelon Corporation	EXC	Yes	No								
FirstEnergy Corp.	FE	Yes	No								
Great Plains Energy Inc.	**GXP**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Hawaiian Electric Industries, Inc.	HE	Yes	No								
IDACORP, Inc.	IDA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No		
Integrys Energy Group, Inc.	TEG	Yes	Yes	No							
ITC Holdings Corp.	ITC	Yes	NA								
MDU Resources Group, Inc.	MDU	Yes	No								
MGE Energy, Inc.	MGEE	Yes	No								
NextEra Energy Partners, LP	NEP	Yes	NA								
NextEra Energy, Inc.	NEE	Yes	No								
NiSource Inc.	NI	Yes	No								
Northeast Utilities	NU	Yes	Yes	Yes	No						
NorthWestern Corporation	NWE	Yes	Yes	Yes	No						
NRG Energy, Inc.	NRG	Yes	NA								
NRG Yield, Inc.	NYLD	Yes	NA								
OGE Energy Corp.	**OGE**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Ormat Technologies, Inc.	ORA	Yes	NA								
Otter Tail Corporation	OTTR	Yes	Yes	Yes	Yes	No					
Pattern Energy Group Inc.	PEGI	Yes	NA								
Pepco Holdings, Inc.	POM	Yes	Yes	Yes	No						
PG&E Corporation	PCG	Yes	Yes	Yes	No						
Pinnacle West Capital Corporation	**PNW**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
PNM Resources, Inc.	**PNM**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Portland General Electric Company	**POR**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
PPL Corporation	PPL	Yes	No								
Public Service Enterprise Group Inc.	PEG	Yes	No								
SCANA Corporation	SCG	Yes	No								
Sempra Energy	SRE	Yes	No								
Southern Company	**SO**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Spark Energy, Inc.	SPKE	Yes	NA								
TECO Energy, Inc.	**TE**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
TerraForm Power, Inc.	TERP	Yes	NA								
UGI Corporation	UGI	Yes	NA								
UIL Holdings Corporation	UIL	Yes	Yes	Yes	No						
Unitil Corporation	UTL	Yes	Yes	No							
UNS Energy Corporation	NA	No									
Vectren Corporation	VVC	Yes	No								
Westar Energy, Inc.	**WR**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Wisconsin Energy Corporation	WEC	Yes	Yes	Yes	Yes	No					
Xcel Energy Inc.	**XEL**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

Sources: Columns 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 11 = SNL Financial
Column 4 = Edison Electric Institute 2013 Financial Review

NA = Not available.

Schedule 8

Comparable Electrical Utility Companies
for The Empire District Electric Company

Number	Ticker Symbol	Company Name		S&P Corporate Credit Rating
1	LNT	Alliant Energy		A-
2	AEE	Ameren Corp.		BBB+
3	AEP	American Electric Power		BBB
4	CMS	CMS Energy Corporation		BBB+
5	DTE	DTE Energy Company		BBB+
6	GXP	Great Plains Energy		BBB+
7	OGE	OGE Energy Corp.		A-
8	PNW	Pinnacle West Capital		A-
9	PNM	PNM Resources, Inc.		BBB
10	POR	Portland General Electric Company		BBB
11	SO	Southern Company		A
12	TE	TECO Energy, Inc.		BBB+
13	WR	Westar Energy, Inc.		BBB+
14	XEL	Xcel Energy		A-
			Average	BBB+
		The Empire Distrtict Electric Company		BBB

The Empire District Electric Company
Case No. ER-2014-0351

Dividends Per Share
for the Fourteen Comparable Companies

Company Name	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001
Alliant Energy	2.35	2.20	2.04	1.88	1.80	1.70	1.58	1.50	1.40	0.95	1.47	1.05	1.01	1.00	2.00	2.00
Ameren Corp.	1.74	1.67	1.62	1.60	1.60	1.56	1.54	1.54	2.54	2.54	2.54	2.54	2.54	2.54	2.54	2.54
American Electric Power	2.23	2.13	2.03	1.95	1.88	1.85	1.71	1.64	1.64	1.58	1.50	1.42	1.40	1.65	2.40	2.40
CMS Energy Corp.	1.23	1.15	1.08	1.02	0.96	0.84	0.66	0.50	0.36	0.20	0.00	0.00	0.00	0.00	1.09	1.46
DTE Energy Company	2.98	2.83	2.70	2.59	2.42	2.32	2.18	2.12	2.12	2.12	2.08	2.06	2.06	2.06	2.06	2.06
Great Plains Energy	1.09	1.00	0.94	0.88	0.86	0.84	0.83	0.83	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.70
OGE Energy Corp.	1.12	1.04	0.93	0.85	0.80	0.76	0.73	0.71	0.70	0.68	0.67	0.67	0.67	0.67	0.67	0.67
Pinnacle West Capital	2.53	2.42	2.32	2.23	2.67	2.10	2.10	2.10	2.10	2.10	2.03	1.93	1.83	1.73	1.63	1.53
PNM Resources, Inc.	0.91	0.80	0.74	0.68	0.58	0.50	0.50	0.50	0.61	0.92	0.88	0.79	0.67	0.61	0.59	0.53
Portland General Electric Company	1.30	1.19	1.12	1.10	1.08	1.06	1.04	1.01	0.97	0.93	0.68	NA	NA	NA	NA	NA
Southern Company	2.22	2.15	2.08	2.01	1.94	1.87	1.80	1.73	1.66	1.60	1.54	1.48	1.42	1.39	1.36	1.34
TECO Energy, Inc.	0.91	0.90	0.89	0.88	0.88	0.85	0.82	0.80	0.80	0.78	0.76	0.76	0.76	0.93	1.41	1.37
Westar Energy, Inc.	1.55	1.45	1.40	1.36	1.32	1.28	1.24	1.20	1.16	1.08	1.00	0.92	0.80	0.76	1.20	1.20
Xcel Energy	1.31	1.25	1.19	1.11	1.07	1.03	1.00	0.97	0.94	0.91	0.88	0.85	0.81	0.75	1.13	1.50

	10-Year Historical	5-Year Historcal	3-Year Projected
Alliant Energy	0.74%	7.09%	7.71%
Ameren Corp.	-4.61%	-9.00%	2.93%
American Electric Power	-1.26%	3.77%	4.65%
CMS Energy Corp.	1.01%	38.17%	6.36%
DTE Energy Company	1.71%	3.00%	4.91%
Great Plains Energy	-6.46%	-12.38%	7.23%
OGE Energy Corp.	1.90%	3.25%	9.51%
Pinnacle West Capital	3.67%	2.35%	4.37%
PNM Resources, Inc.	0.15%	-6.05%	10.10%
Portland General Electric Company	NA	4.60%	5.98%
Southern Company	3.63%	3.99%	3.40%
TECO Energy, Inc.	-3.44%	2.30%	1.12%
Westar Energy, Inc.	2.28%	4.10%	4.38%
Xcel Energy	-0.49%	3.25%	5.65%
Average	**-0.09%**	**3.46%**	**5.59%**
Average without OGE and TECO	**0.03%**	**3.57%**	**5.64%**

The Empire District Electric Company
Case No. ER-2014-0351

Earnings Per Share
for the Fourteen Comparable Companies

Company Name	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001
Alliant Energy	3.84	3.64	3.47	3.29	2.93	2.92	2.62	1.00	2.54	3.78	2.90	0.48	1.93	1.54	0.97	1.57
Ameren Corp.	2.71	2.56	2.36	2.11	2.13	1.79	0.58	2.78	2.88	2.98	2.66	3.13	2.84	3.14	2.61	3.46
American Electric Power	3.72	3.54	3.47	3.04	2.60	3.25	2.53	2.97	3.40	2.87	2.52	2.64	2.85	1.35	1.46	2.85
CMS Energy Corp.	2.00	1.88	1.77	1.71	1.43	1.65	1.50	0.87	1.25	-0.62	-0.66	-0.71	0.68	-0.30	-2.84	-1.79
DTE Energy Company	4.91	4.60	4.44	3.76	3.89	4.21	3.75	3.24	3.22	4.62	2.19	3.30	2.67	2.87	3.57	2.15
Great Plains Energy	1.84	1.68	1.58	1.62	1.36	1.27	1.55	1.16	1.16	1.41	1.74	2.18	2.39	2.72	2.10	-0.68
OGE Energy Corp.	2.26	2.10	1.97	1.96	1.80	1.75	1.52	1.34	1.25	1.33	1.24	0.90	0.84	0.83	0.52	0.60
Pinnacle West Capital	4.01	3.86	3.72	3.69	3.54	3.01	3.05	2.34	2.59	2.83	2.67	NA	2.70	2.47	2.79	3.86
PNM Resources, Inc.	1.84	1.57	1.47	1.26	1.32	1.98	-0.49	0.58	-3.66	0.77	1.55	1.00	1.45	0.99	1.09	2.55
Portland General Electric Company	2.39	2.28	2.17	1.36	1.87	1.95	1.66	1.31	1.39	2.33	1.14	NA	NA	NA	NA	NA
Southern Company	2.98	2.87	2.80	1.88	2.70	2.57	2.37	2.07	2.26	2.29	2.12	2.14	2.07	2.03	1.86	1.62
TECO Energy, Inc.	1.17	1.11	1.03	0.92	1.14	1.17	1.12	1.00	0.77	1.90	1.18	1.02	-1.85	0.56	1.81	2.04
Westar Energy, Inc.	2.54	2.42	2.41	2.29	2.15	1.95	1.81	1.28	1.69	1.83	1.88	1.54	1.19	2.24	1.23	-0.56
Xcel Energy	2.21	2.09	2.00	1.91	1.86	1.72	1.62	1.49	1.47	1.38	1.39	1.23	1.30	1.31	1.37	2.14

	10-Year Historical	5-Year Historcal	3-Year Projected
Alliant Energy	8.40%	-0.17%	5.31%
Ameren Corp.	-4.15%	-6.68%	8.65%
American Electric Power	4.62%	0.23%	6.97%
CMS Energy Corp.	NM	NM	5.41%
DTE Energy Company	3.28%	3.41%	9.32%
Great Plains Energy	0.26%	-0.28%	4.42%
OGE Energy Corp.	10.95%	7.60%	4.85%
Pinnacle West Capital	1.17%	4.83%	2.81%
PNM Resources, Inc.	-0.15%	NM	13.48%
Portland General Electric Company	NA	1.28%	20.65%
Southern Company	2.64%	1.40%	16.57%
TECO Energy, Inc.	-3.07%	-3.45%	8.49%
Westar Energy, Inc.	8.18%	3.42%	3.45%
Xcel Energy	1.31%	5.30%	5.06%
Average	**2.79%**	**1.41%**	**8.25%**
Average without OGE and TECO	**2.56%**	**1.27%**	**8.51%**

The Empire District Electric Company
Case No. ER-2014-0351

Book Value Per Share
for the Fourteen Comparable Companies

Company Name	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001
Alliant Energy	35.77	34.03	31.77	29.58	28.25	27.14	26.09	25.06	25.56	24.30	22.83	20.85	22.13	21.37	19.89	21.39
Ameren Corp.	29.42	28.67	27.59	26.97	27.27	32.64	32.15	33.09	32.80	32.41	31.86	31.09	29.71	26.73	24.93	24.26
American Electric Power	38.10	36.45	34.80	32.98	31.37	30.33	28.33	27.49	26.33	25.17	23.73	23.08	21.51	19.93	20.85	25.54
CMS Energy Corp.	15.23	14.37	13.56	12.98	12.10	11.92	11.19	11.42	10.94	9.46	10.03	10.53	10.63	9.84	7.48	15.32
DTE Energy Company	51.29	49.16	46.91	44.73	42.78	41.41	39.67	37.96	36.77	35.86	33.02	32.44	31.85	31.36	27.26	28.48
Great Plains Energy	24.62	23.87	23.21	22.58	21.75	21.74	21.26	20.62	21.39	18.18	16.70	16.51	15.35	13.82	13.58	12.59
OGE Energy Corp.	17.69	16.88	16.08	15.30	14.01	13.06	11.73	10.52	10.14	9.16	8.79	7.59	7.14	6.87	6.27	6.67
Pinnacle West Capital	43.50	41.29	39.79	38.07	36.20	34.98	33.86	32.69	34.16	35.15	34.48	34.58	32.14	30.97	29.40	29.46
PNM Resources, Inc.	22.13	21.23	20.54	21.01	20.19	19.76	17.73	19.03	19.03	22.03	22.24	18.89	18.19	17.84	16.60	17.25
Portland General Electric Company	26.97	26.23	24.05	23.29	22.87	22.07	21.14	20.50	21.64	21.05	19.58	19.15	29.91	27.69	26.40	25.49
Southern Company	24.69	23.81	23.04	21.43	21.09	20.34	19.21	18.15	17.08	16.23	15.24	14.42	13.86	13.13	12.16	11.43
TECO Energy, Inc.	11.68	11.43	11.27	10.74	10.58	10.50	10.10	9.75	9.43	9.56	8.25	7.64	6.43	8.93	14.85	14.12
Westar Energy, Inc.	27.68	26.92	25.34	23.88	22.89	22.03	21.25	20.59	20.18	19.14	17.61	16.31	16.13	13.98	13.41	25.60
Xcel Energy	22.19	21.22	20.33	19.21	18.19	17.44	16.76	15.92	15.35	14.70	14.28	13.37	12.99	12.95	11.70	17.95

	10-Year Historical	5-Year Historcal	3-Year Projected
Alliant Energy	3.54%	3.17%	6.54%
Ameren Corp.	0.64%	-2.19%	2.94%
American Electric Power	4.08%	4.71%	4.94%
CMS Energy Corp.	1.78%	3.99%	5.48%
DTE Energy Company	4.42%	4.06%	4.67%
Great Plains Energy	5.41%	3.27%	2.92%
OGE Energy Corp.	8.77%	8.57%	4.95%
Pinnacle West Capital	2.43%	1.03%	4.54%
PNM Resources, Inc.	2.00%	-0.75%	1.74%
Portland General Electric Company	-1.29%	1.85%	5.01%
Southern Company	5.76%	5.30%	4.83%
TECO Energy, Inc.	-1.61%	3.15%	2.84%
Westar Energy, Inc.	3.06%	3.86%	5.04%
Xcel Energy	3.07%	4.35%	4.93%
Average	**3.00%**	**3.17%**	**4.38%**
Average without OGE and TECO	**2.91%**	**2.72%**	**4.47%**

The Empire District Electric Company
Case No. ER-2014-0351

Ten-Year Dividends Per Share, Earnings Per Share & Book Value Per Share Growth Rates for the Fourteen Comparable Companies

	10-Year Annual Compound Growth Rates			
Company Name	DPS	EPS	BVPS	Average of 10 Year Annual Compound Growth Rates
Alliant Energy	0.74%	8.40%	3.54%	4.23%
Ameren Corp.	-4.61%	-4.15%	0.64%	-2.70%
American Electric Power	-1.26%	4.62%	4.08%	2.48%
CMS Energy Corp.	1.01%	NM	1.78%	1.39%
DTE Energy Company	1.71%	3.28%	4.42%	3.14%
Great Plains Energy	-6.46%	0.26%	5.41%	-0.26%
OGE Energy Corp.	1.90%	10.95%	8.77%	7.20%
Pinnacle West Capital	3.67%	1.17%	2.43%	2.42%
PNM Resources, Inc.	0.15%	-0.15%	2.00%	0.67%
Portland General Electric Company	NA	NA	-1.29%	-1.29%
Southern Company	3.63%	2.64%	5.76%	4.01%
TECO Energy, Inc.	-3.44%	-3.07%	-1.61%	-2.71%
Westar Energy, Inc.	2.28%	8.18%	3.06%	4.51%
Xcel Energy	-0.49%	1.31%	3.07%	1.29%
Average	**-0.09%**	**2.79%**	**3.00%**	**1.74%**
Average without OGE and TECO	**0.03%**	**2.56%**	**2.91%**	**1.66%**

Source: SNL Financial.

The Empire District Electric Company
Case No. ER-2014-0351

Five-Year Dividends Per Share, Earnings Per Share & Book Value Per Share Growth Rates for the Fourteen Comparable Companies

	5-Year Annual Compound Growth Rates			
Company Name	DPS	EPS	BVPS	Average of 5 Year Annual Compound Growth Rates
Alliant Energy	7.09%	-0.17%	3.17%	3.36%
Ameren Corp.	-9.00%	-6.68%	-2.19%	-5.96%
American Electric Power	3.77%	0.23%	4.71%	2.90%
CMS Energy Corp.	38.17%	NM	3.99%	21.08%
DTE Energy Company	3.00%	3.41%	4.06%	3.49%
Great Plains Energy	-12.38%	-0.28%	3.27%	-3.13%
OGE Energy Corp.	3.25%	7.60%	8.57%	6.48%
Pinnacle West Capital	2.35%	4.83%	1.03%	2.74%
PNM Resources, Inc.	-6.05%	NM	-0.75%	-3.40%
Portland General Electric Company	4.60%	1.28%	1.85%	2.58%
Southern Company	3.99%	1.40%	5.30%	3.56%
TECO Energy, Inc.	2.30%	-3.45%	3.15%	0.67%
Westar Energy, Inc.	4.10%	3.42%	3.86%	3.79%
Xcel Energy	3.25%	5.30%	4.35%	4.30%
Average	**3.46%**	**1.41%**	**3.17%**	**3.03%**
Average without OGE and TECO	**3.57%**	**1.27%**	**2.72%**	**2.94%**

Source: SNL Financial.

The Empire District Electric Company
Case No. ER-2014-0351

Historical and Projected Growth Rates for the Fourteen Comparable Electric Companies

Company Name	(1) 10-Year Historical Growth Rate (DPS, EPS and BVPS)	(2) 5-Year Hisotrical Growth Rate (DPS, EPS and BVPS)	(3) Projected 5-Year EPS Growth FactSet (Mean) (%)
Alliant Energy	4.23%	3.36%	4.90
Ameren Corp.	-2.70%	-5.96%	8.43
American Electric Power	2.48%	2.90%	5.18
CMS Energy Corp.	NM	NM	5.98
DTE Energy Company	3.14%	3.49%	5.95
Great Plains Energy	-0.26%	-3.13%	4.62
OGE Energy Corp.	7.20%	6.48%	5.87
Pinnacle West Capital	2.42%	2.74%	4.00
PNM Resources, Inc.	0.67%	NM	7.43
Portland General Electric Company	-1.29%	2.58%	7.74
Southern Company	4.01%	3.56%	3.71
TECO Energy, Inc.	-2.71%	0.67%	6.65
Westar Energy, Inc.	4.51%	3.79%	3.38
Xcel Energy	1.29%	4.30%	4.97
Average	**1.77%**	**2.06%**	**5.63**
Average without OGE and TECO	**1.68%**	**1.76%**	**5.52**

Sources: Column 1 = Schedule 9-4

Column 2 = Schedule 9-5.

Column 3 = SNL Financial

The Empire District Electric Company
Case No. ER-2014-0351

Average High / Low Stock Price for October 2014 through December 2014
for the Comparable Electric Utility Companies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	-- October 2014 --		-- November 2014 --		-- December 2014 --		**Average High/Low Stock Price (10/14 - 12/14)**
Company Name	High Stock Price	Low Stock Price	High Stock Price	Low Stock Price	High Stock Price	Low Stock Price	
Alliant Energy	62.30	55.38	63.73	61.35	69.78	61.94	**62.41**
Ameren Corp.	42.71	38.25	44.22	41.89	48.14	42.15	**42.89**
American Electric Power	58.61	51.97	59.84	55.90	63.22	56.97	**57.75**
CMS Energy Corp.	32.91	29.59	33.46	32.05	36.87	32.79	**32.95**
DTE Energy Company	82.33	75.76	84.42	79.54	90.77	80.71	**82.26**
Great Plains Energy	27.00	24.11	27.38	25.63	29.46	25.94	**26.59**
OGE Energy Corp.	37.56	33.06	37.90	35.64	36.70	32.85	**35.62**
Pinnacle West Capital	61.56	54.59	63.50	60.61	71.11	62.60	**62.33**
PNM Resources, Inc.	29.33	24.81	29.62	28.19	31.60	27.41	**28.49**
Portland General Electric Company	36.86	32.07	37.29	35.50	40.31	36.51	**36.42**
Southern Company	47.69	43.55	47.97	46.30	51.28	47.07	**47.31**
TECO Energy, Inc.	19.87	17.35	20.17	19.12	21.29	18.89	**19.45**
Westar Energy, Inc.	37.91	33.73	39.62	37.24	43.15	38.52	**38.36**
Xcel Energy	33.76	30.18	34.10	32.95	37.58	33.49	**33.68**

Notes:

Column 7 = [(Column 1 + Column 2 + Column 3 + Column 4 + Column 5 + Column 6) / 6].

Source: http://finance.yahoo.com

Constant-Growth Discounted Cash Flow (DCF) Estimated Costs of Common Equity for the Comparable Electric Utility Companies

Company Name	(1) Expected Annual Dividend	(2) Average High/Low Stock Price	(3) Projected Dividend Yield
Alliant Energy	$2.20	$62.413	3.53%
Ameren Corp.	$1.67	$42.893	3.89%
American Electric Power	$2.13	$57.752	3.69%
CMS Energy Corp.	$1.15	$32.945	3.49%
DTE Energy Company	$2.83	$82.255	3.44%
Great Plains Energy	$1.00	$26.587	3.77%
OGE Energy Corp.	$1.04	$35.618	2.91%
Pinnacle West Capital	$2.42	$62.328	3.89%
PNM Resources, Inc.	$0.80	$28.493	2.82%
Portland General Electric Company	$1.19	$36.423	3.28%
Southern Company	$2.15	$47.310	4.55%
TECO Energy, Inc.	$0.90	$19.448	4.62%
Westar Energy, Inc.	$1.45	$38.362	3.79%
Xcel Energy	$1.25	$33.677	3.72%
Average			**3.67%**
Average without OGE and TECO			**3.65%**

Proposed Dividend Yield:	**3.70%**
Proposed Range of Growth:	**3.50% - 4.50%**
Estimated Proxy Cost of Common Equity:	**7.20 - 8.20%**

Notes: Column 1 = Expected Annual Dividend based on each company's 2015 fiscal year FactSet projected dividends per share according to SNL Financial.

Column 3 = (Column 1 / Column 2).

Sources: Column 1 = SNL Financial

Column 2 = Schedule 11.

The Empire District Electric Company
Case No. ER-2014-0351

Multiple-Stage Discounted Cash Flow (DCF) Estimated Costs of Common Equity for the Comparable Electric Utility Companies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Company Name	Annualized Quarterly Dividend	Growth Years 1-5	6	7	Growth Years 8	9	10	Growth in Perpetuity	Cost of Equity
Alliant Energy	$2.04	4.90%	4.58%	4.27%	3.95%	3.63%	3.32%	3.00%	6.80%
Ameren Corp.	$1.64	8.43%	7.53%	6.62%	5.72%	4.81%	3.91%	3.00%	8.48%
American Electric Power	$2.12	5.18%	4.82%	4.45%	4.09%	3.73%	3.36%	3.00%	7.34%
CMS Energy Corp.	$1.08	5.98%	5.48%	4.99%	4.49%	3.99%	3.50%	3.00%	7.08%
DTE Energy Company	$2.76	5.95%	5.46%	4.97%	4.48%	3.98%	3.49%	3.00%	7.17%
Great Plains Energy	$0.98	4.62%	4.35%	4.08%	3.81%	3.54%	3.27%	3.00%	7.21%
OGE Energy Corp.	$1.00	5.87%	5.39%	4.91%	4.44%	3.96%	3.48%	3.00%	6.48%
Pinnacle West Capital	$2.38	4.00%	3.83%	3.67%	3.50%	3.33%	3.17%	3.00%	7.19%
PNM Resources, Inc.	$0.80	7.43%	6.69%	5.95%	5.22%	4.48%	3.74%	3.00%	6.84%
Portland General Electric	$1.12	7.74%	6.95%	6.16%	5.37%	4.58%	3.79%	3.00%	7.27%
Southern Company	$2.10	3.71%	3.59%	3.47%	3.36%	3.24%	3.12%	3.00%	7.78%
TECO Energy, Inc.	$0.88	6.65%	6.04%	5.43%	4.83%	4.22%	3.61%	3.00%	8.81%
Westar Energy, Inc.	$1.40	3.38%	3.32%	3.25%	3.19%	3.13%	3.06%	3.00%	6.85%
Xcel Energy	$1.20	4.97%	4.64%	4.31%	3.99%	3.66%	3.33%	3.00%	7.16%
								Average	**7.32%**
								Average without OGE and TECO	**7.26%**

Average of Broad Group without Ameren and PNM for Backdating Comparision	**7.26%**
Average of Refined Group without Ameren and PNM for Backdating Comparision	**7.18%**

Sources: Column 1 = SNL Financial
Column 2 = Schedule 10-6
Column 8 = See range of averages from Schedules 14-1 through Schedule 14-4.

The Empire District Electric Company
Case No. ER-2014-0351

Multiple-Stage Discounted Cash Flow (DCF) Estimated Costs of Common Equity for the Comparable Electric Utility Companies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Company Name	Annualized Quarterly Dividend	Growth Years 1-5	6	7	Growth Years 8	9	10	Growth in Perpetuity	Cost of Equity
Alliant Energy	$2.04	4.90%	4.67%	4.43%	4.20%	3.97%	3.73%	3.50%	7.20%
Ameren Corp.	$1.64	8.43%	7.61%	6.79%	5.97%	5.14%	4.32%	3.50%	8.84%
American Electric Power	$2.12	5.18%	4.90%	4.62%	4.34%	4.06%	3.78%	3.50%	7.72%
CMS Energy Corp.	$1.08	5.98%	5.57%	5.15%	4.74%	4.33%	3.91%	3.50%	7.47%
DTE Energy Company	$2.76	5.95%	5.54%	5.13%	4.73%	4.32%	3.91%	3.50%	7.56%
Great Plains Energy	$0.98	4.62%	4.43%	4.25%	4.06%	3.87%	3.69%	3.50%	7.59%
OGE Energy Corp.	$1.00	5.87%	5.48%	5.08%	4.69%	4.29%	3.90%	3.50%	6.88%
Pinnacle West Capital	$2.38	4.00%	3.92%	3.83%	3.75%	3.67%	3.58%	3.50%	7.58%
PNM Resources, Inc.	$0.80	7.43%	6.78%	6.12%	5.47%	4.81%	4.16%	3.50%	7.23%
Portland General Electric	$1.12	7.74%	7.03%	6.33%	5.62%	4.91%	4.21%	3.50%	7.66%
Southern Company	$2.10	3.71%	3.68%	3.64%	3.61%	3.57%	3.54%	3.50%	8.15%
TECO Energy, Inc.	$0.88	6.65%	6.13%	5.60%	5.08%	4.55%	4.03%	3.50%	9.17%
Westar Energy, Inc.	$1.40	3.38%	3.40%	3.42%	3.44%	3.46%	3.48%	3.50%	7.25%
Xcel Energy	$1.20	4.97%	4.73%	4.48%	4.24%	3.99%	3.75%	3.50%	7.55%
								Average	**7.70%**
								Average without OGE and TECO	**7.65%**

Average of Broad Group without Ameren and PNM for Backdating Comparision	**7.65%**
Average of Refined Group without Ameren and PNM for Backdating Comparision	**7.57%**

Sources: Column 1 = SNL Financial.
Column 2 = Schedule 10-6
Column 8 = See range of averages from Schedules 14-1 through Schedule 14-4.

The Empire District Electric Company
Case No. ER-2014-0351

Multiple-Stage Discounted Cash Flow (DCF) Estimated Costs of Common Equity for the Comparable Electric Utility Companies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Company Name	Annualized Quarterly Dividend	Growth Years 1-5	6	7	Growth Years 8	9	10	Growth in Perpetuity	Cost of Equity
Alliant Energy	$2.04	4.90%	4.75%	4.60%	4.45%	4.30%	4.15%	4.00%	7.60%
Ameren Corp.	$1.64	8.43%	7.69%	6.95%	6.22%	5.48%	4.74%	4.00%	9.21%
American Electric Power	$2.12	5.18%	4.98%	4.79%	4.59%	4.39%	4.20%	4.00%	8.11%
CMS Energy Corp.	$1.08	5.98%	5.65%	5.32%	4.99%	4.66%	4.33%	4.00%	7.86%
DTE Energy Company	$2.76	5.95%	5.63%	5.30%	4.98%	4.65%	4.33%	4.00%	7.95%
Great Plains Energy	$0.98	4.62%	4.52%	4.41%	4.31%	4.21%	4.10%	4.00%	7.99%
OGE Energy Corp.	$1.00	5.87%	5.56%	5.25%	4.94%	4.62%	4.31%	4.00%	7.29%
Pinnacle West Capital	$2.38	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	7.97%
PNM Resources, Inc.	$0.80	7.43%	6.86%	6.29%	5.72%	5.14%	4.57%	4.00%	7.63%
Portland General Electric	$1.12	7.74%	7.12%	6.49%	5.87%	5.25%	4.62%	4.00%	8.05%
Southern Company	$2.10	3.71%	3.76%	3.81%	3.86%	3.90%	3.95%	4.00%	8.53%
TECO Energy, Inc.	$0.88	6.65%	6.21%	5.77%	5.33%	4.88%	4.44%	4.00%	9.53%
Westar Energy, Inc.	$1.40	3.38%	3.48%	3.59%	3.69%	3.79%	3.90%	4.00%	7.64%
Xcel Energy	$1.20	4.97%	4.81%	4.65%	4.49%	4.32%	4.16%	4.00%	7.94%
								Average	**8.09%**
								Average without OGE and TECO	**8.04%**

Average of Broad Group without Ameren and PNM for Backdating Comparision	**8.04%**
Average of Refined Group without Ameren and PNM for Backdating Comparision	**7.96%**

Sources: Column 1 = SNL Financial.
Column 2 = Schedule 10-6
Column 8 = See range of averages from Schedules 14-1 through Schedule 14-4.

The Empire District Electric Company
Case No. ER-2014-0351

Multiple-Stage Discounted Cash Flow (DCF) Estimated Costs of Common Equity for the Comparable Electric Utility Companies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Company Name	Annualized Quarterly Dividend	Growth Years 1-5	6	7	Growth Years 8	9	10	Growth in Perpetuity	Cost of Equity
Alliant Energy	$2.04	4.90%	4.82%	4.73%	4.65%	4.57%	4.48%	4.40%	7.92%
Ameren Corp.	$1.64	8.43%	7.76%	7.09%	6.42%	5.74%	5.07%	4.40%	9.50%
American Electric Power	$2.12	5.18%	5.05%	4.92%	4.79%	4.66%	4.53%	4.40%	8.42%
CMS Energy Corp.	$1.08	5.98%	5.72%	5.45%	5.19%	4.93%	4.66%	4.40%	8.18%
DTE Energy Company	$2.76	5.95%	5.69%	5.43%	5.18%	4.92%	4.66%	4.40%	8.26%
Great Plains Energy	$0.98	4.62%	4.58%	4.55%	4.51%	4.47%	4.44%	4.40%	8.30%
OGE Energy Corp.	$1.00	5.87%	5.63%	5.38%	5.14%	4.89%	4.65%	4.40%	7.62%
Pinnacle West Capital	$2.38	4.00%	4.07%	4.13%	4.20%	4.27%	4.33%	4.40%	8.28%
PNM Resources, Inc.	$0.80	7.43%	6.93%	6.42%	5.92%	5.41%	4.91%	4.40%	7.95%
Portland General Electric	$1.12	7.74%	7.18%	6.63%	6.07%	5.51%	4.96%	4.40%	8.36%
Southern Company	$2.10	3.71%	3.83%	3.94%	4.06%	4.17%	4.29%	4.40%	8.84%
TECO Energy, Inc.	$0.88	6.65%	6.28%	5.90%	5.53%	5.15%	4.78%	4.40%	9.81%
Westar Energy, Inc.	$1.40	3.38%	3.55%	3.72%	3.89%	4.06%	4.23%	4.40%	7.96%
Xcel Energy	$1.20	4.97%	4.88%	4.78%	4.69%	4.59%	4.50%	4.40%	8.25%
								Average	**8.41%**
								Average without OGE and TECO	**8.35%**

Sources: Column 1 = SNL Financial.
Column 2 = Schedule 10-6
Column 8 = Compounding the expected GDP price deflator of 2% with the long term real GDP growth of 2.35%.

The Empire District Electric Company
Case No. ER-2014-0351

Central Region Electric Utility Proxy Group
EPS
Ten-Year Compound Growth Rate Averages (1968-1999)

Years	Dayton P & L/ DPL	Detroit Edison/ DTE	Empire	IPALCO	Kansas City P & L	Northern States Power	Okla. Gas & Electric/ OGE Energy Corp.	SJL&P	WPS Resources/ Wisconsin Public Serv.	WI Energy/ WI Electric Power	Average
1968-70 to 1978-80	-1.74%	-0.57%	0.24%	4.13%	1.77%	4.13%	1.16%	1.40%	6.23%	6.32%	**2.31%**
1969-71 to 1979-81	-0.21%	0.05%	-0.64%	4.30%	2.62%	4.02%	0.48%	1.66%	6.60%	6.79%	**2.57%**
1970-72 to 1980-82	0.98%	-0.46%	0.41%	3.14%	3.24%	4.48%	1.88%	2.66%	6.41%	7.24%	**3.00%**
1971-73 to 1981-83	2.72%	0.53%	2.64%	2.87%	4.83%	6.11%	2.90%	4.03%	6.92%	7.77%	**4.13%**
1972-74 to 1982-84	3.71%	1.48%	5.33%	4.69%	6.44%	7.64%	3.02%	5.65%	7.78%	8.25%	**5.40%**
1973-75 to 1983-85	4.19%	3.60%	6.21%	5.91%	7.60%	8.08%	2.58%	6.94%	8.54%	9.39%	**6.30%**
1974-76 to 1984-86	4.19%	4.41%	6.50%	5.86%	5.75%	8.03%	2.81%	7.89%	7.98%	9.60%	**6.30%**
1975-77 to 1985-87	5.10%	4.69%	5.70%	4.19%	4.26%	7.59%	2.90%	8.10%	6.81%	9.18%	**5.85%**
1976-78 to 1986-88	5.84%	4.29%	5.68%	5.40%	3.02%	7.24%	3.92%	7.95%	5.98%	8.86%	**5.82%**
1977-79 to 1987-89	6.16%	3.93%	5.49%	5.09%	4.12%	6.73%	5.22%	8.49%	5.08%	8.96%	**5.93%**
1978-80 to 1988-90	5.61%	4.41%	5.52%	5.11%	3.09%	6.07%	6.65%	8.20%	4.35%	9.08%	**5.81%**
1979-81 to 1989-91	3.75%	5.35%	6.06%	4.67%	1.90%	5.45%	6.56%	7.68%	3.70%	8.07%	**5.32%**
1980-82 to 1990-92	2.46%	6.83%	4.65%	4.43%	0.31%	3.15%	3.63%	5.76%	3.91%	6.16%	**4.13%**
1981-83 to 1991-93	1.00%	6.06%	2.56%	3.11%	-1.01%	1.58%	1.58%	3.37%	3.45%	4.33%	**2.60%**
1982-84 to 1992-94	1.31%	4.75%	-0.16%	1.44%	-2.03%	0.83%	0.71%	2.88%	2.19%	2.64%	**1.46%**
1983-85 to 1993-95	1.36%	2.97%	-1.18%	1.78%	-2.21%	1.85%	1.81%	2.46%	1.03%	2.58%	**1.24%**
1984-86 to 1994-96	1.71%	1.79%	-1.39%	3.31%	-1.08%	2.26%	2.15%	2.56%	0.20%	2.27%	**1.38%**
1985-87 to 1995-97	1.65%	0.64%	-1.47%	4.22%	0.35%	1.90%	2.19%	1.90%	0.12%	-0.46%	**1.10%**
1986-88 to 1996-98	2.28%	0.57%	-0.92%	4.59%	1.57%	1.50%	2.11%	1.34%	-0.86%	-2.24%	**0.99%**
1987-89 to 1997-99	2.62%	1.08%	-0.46%	5.06%	0.15%	0.40%	2.36%	0.49%	-0.38%	-3.07%	**0.83%**
Average	**2.73%**	**2.82%**	**2.54%**	**4.17%**	**2.23%**	**4.45%**	**2.83%**	**4.57%**	**4.30%**	**5.59%**	**3.62%**

The Empire District Electric Company
Case No. ER-2014-0351

Central Region Electric Utility Proxy Group
DPS
Ten-Year Compound Growth Rate Averages (1968-1999)

Years	Dayton P & L/ DPL	Detroit Edison/ DTE	Empire	IPALCO	Kansas City P & L	Northern States Power	Okla. Gas & Electric/ OGE Energy Corp.	SJL&P	WPS Resources/ Wisconsin Public Serv.	WI Energy/ WI Electric Power	Average
1968-70 to 1978-80	0.90%	1.17%	2.45%	3.52%	3.34%	3.37%	3.79%	1.89%	4.36%	5.46%	**3.03%**
1969-71 to 1979-81	0.87%	1.43%	2.17%	4.15%	3.03%	3.76%	3.52%	1.89%	4.69%	5.70%	**3.12%**
1970-72 to 1980-82	1.04%	1.59%	1.90%	4.69%	3.17%	4.02%	3.32%	2.01%	5.13%	5.98%	**3.28%**
1971-73 to 1981-83	1.41%	1.64%	1.98%	4.92%	3.56%	4.39%	3.35%	2.28%	5.64%	6.23%	**3.54%**
1972-74 to 1982-84	1.70%	1.60%	2.32%	4.95%	4.13%	4.88%	3.49%	2.82%	6.18%	6.37%	**3.84%**
1973-75 to 1983-85	1.89%	1.48%	2.86%	5.03%	4.45%	5.60%	3.62%	3.50%	6.72%	6.52%	**4.17%**
1974-76 to 1984-86	1.89%	1.48%	3.31%	5.19%	4.12%	6.31%	3.75%	4.32%	7.18%	6.78%	**4.43%**
1975-77 to 1985-87	2.01%	1.44%	3.77%	5.73%	3.40%	6.78%	3.91%	4.97%	7.38%	7.08%	**4.65%**
1976-78 to 1986-88	2.26%	1.28%	4.14%	5.65%	2.96%	6.95%	4.04%	5.36%	7.30%	7.34%	**4.73%**
1977-79 to 1987-89	2.56%	0.94%	4.50%	5.49%	3.16%	6.96%	4.14%	5.72%	7.00%	7.51%	**4.80%**
1978-80 to 1988-90	2.83%	0.86%	4.81%	4.96%	3.58%	6.86%	4.27%	6.10%	6.66%	7.65%	**4.86%**
1979-81 to 1989-91	2.92%	0.99%	5.08%	4.80%	3.77%	6.72%	4.33%	6.53%	6.26%	7.68%	**4.91%**
1980-82 to 1990-92	2.83%	1.38%	5.27%	4.53%	3.78%	6.54%	4.30%	6.63%	5.83%	7.59%	**4.87%**
1981-83 to 1991-93	2.59%	1.70%	5.18%	4.24%	3.47%	6.22%	4.02%	6.49%	5.30%	7.29%	**4.65%**
1982-84 to 1992-94	2.59%	1.93%	4.80%	3.96%	3.02%	5.75%	3.64%	6.03%	4.65%	6.89%	**4.33%**
1983-85 to 1993-95	2.89%	2.06%	4.22%	3.75%	2.72%	5.14%	3.21%	5.50%	3.88%	6.44%	**3.98%**
1984-86 to 1994-96	3.41%	2.06%	3.58%	3.69%	3.14%	4.49%	2.77%	4.90%	3.15%	6.00%	**3.72%**
1985-87 to 1995-97	3.79%	2.06%	2.92%	1.92%	3.74%	3.91%	2.33%	4.42%	2.63%	5.54%	**3.33%**
1986-88 to 1996-98	3.95%	2.06%	2.30%	0.76%	3.99%	3.46%	1.87%	3.92%	2.39%	5.00%	**2.97%**
1987-89 to 1997-99	3.81%	2.06%	1.74%	-0.41%	3.52%	3.11%	1.42%	3.37%	2.31%	4.36%	**2.53%**
Average	**2.41%**	**1.56%**	**3.46%**	**4.08%**	**3.50%**	**5.26%**	**3.46%**	**4.43%**	**5.23%**	**6.47%**	**3.99%**

Central Region Electric Utility Proxy Group
BVPS
Ten-Year Compound Growth Rate Averages (1968-1999)

Years	Dayton P & L/ DPL	Detroit Edison/ DTE	Empire	IPALCO	Kansas City P & L	Northern States Power	Okla. Gas & Electric/ OGE Energy Corp.	SJL&P	WPS Resources/ Wisconsin Public Serv.	WI Energy/ WI Electric Power	Average
1968-70 to 1978-80	1.40%	0.04%	2.37%	5.21%	1.88%	4.34%	5.76%	1.28%	4.13%	4.03%	**3.05%**
1969-71 to 1979-81	0.84%	-0.35%	1.93%	4.93%	1.51%	4.19%	4.58%	1.15%	4.37%	3.71%	**2.69%**
1970-72 to 1980-82	0.28%	-0.88%	1.63%	4.43%	1.19%	4.15%	3.83%	1.13%	4.50%	3.84%	**2.41%**
1971-73 to 1981-83	0.16%	-1.30%	1.58%	3.84%	1.20%	4.31%	3.00%	1.31%	4.57%	4.09%	**2.27%**
1972-74 to 1982-84	0.27%	-1.51%	1.89%	3.77%	1.35%	4.72%	2.66%	1.65%	4.89%	4.49%	**2.42%**
1973-75 to 1983-85	0.25%	-1.27%	2.32%	3.99%	1.88%	5.18%	2.33%	2.36%	5.27%	5.02%	**2.73%**
1974-76 to 1984-86	0.30%	-0.77%	2.82%	4.47%	2.26%	5.56%	2.43%	3.27%	5.56%	5.52%	**3.14%**
1975-77 to 1985-87	0.27%	-0.18%	3.17%	4.63%	2.54%	5.73%	2.33%	4.20%	5.57%	5.86%	**3.41%**
1976-78 to 1986-88	0.66%	-0.61%	3.51%	4.82%	2.32%	5.80%	2.33%	4.89%	5.42%	6.11%	**3.53%**
1977-79 to 1987-89	1.13%	-1.05%	3.79%	4.77%	2.28%	5.80%	2.30%	5.41%	5.16%	6.38%	**3.60%**
1978-80 to 1988-90	1.80%	-1.34%	4.17%	4.79%	2.28%	5.74%	2.57%	5.69%	4.77%	6.69%	**3.72%**
1979-81 to 1989-91	2.31%	-0.30%	4.59%	4.84%	2.44%	5.65%	2.92%	5.82%	4.27%	6.91%	**3.95%**
1980-82 to 1990-92	2.29%	0.97%	4.88%	4.92%	2.41%	5.43%	2.96%	5.72%	3.96%	6.94%	**4.05%**
1981-83 to 1991-93	1.97%	2.03%	4.82%	4.84%	2.10%	5.14%	2.75%	5.41%	3.75%	6.74%	**3.95%**
1982-84 to 1992-94	1.84%	2.72%	4.36%	4.50%	1.71%	4.77%	2.37%	5.01%	3.57%	6.33%	**3.72%**
1983-85 to 1993-95	2.33%	2.95%	3.83%	4.15%	1.17%	4.46%	2.16%	4.60%	3.29%	5.91%	**3.48%**
1984-86 to 1994-96	2.78%	2.82%	3.34%	3.73%	0.78%	4.21%	1.91%	4.27%	2.99%	5.48%	**3.23%**
1985-87 to 1995-97	3.14%	2.52%	2.92%	2.52%	0.41%	4.01%	1.85%	3.99%	2.77%	4.81%	**2.89%**
1986-88 to 1996-98	3.26%	3.25%	2.56%	1.45%	0.50%	3.81%	1.86%	3.75%	2.43%	3.99%	**2.69%**
1987-89 to 1997-99	3.42%	4.16%	2.20%	1.19%	0.42%	3.56%	2.04%	3.47%	2.20%	3.17%	**2.58%**
Average	**1.54%**	**0.60%**	**3.13%**	**4.09%**	**1.63%**	**4.83%**	**2.75%**	**3.72%**	**4.17%**	**5.30%**	**3.18%**

Central Region Electric Utility Proxy Group
DPS, EPS, BVPS & GDP
Ten-Year Compound Growth Rate Averages (1968-1999)

DPS		*EPS*		*BVPS*		Average	GDP	
Years	10 yr compound growth rate avgs	Years	10 yr compound growth rate avgs	Years	10 yr compound growth rate avgs	DPS, EPS and BVPS	Years	10 yr compound growth rate avgs
1968-70 to 1978-80	3.03%	1968-70 to 1978-80	2.31%	1968-70 to 1978-80	3.05%	2.79%	1968-70 to 1978-80	10.05%
1969-71 to 1979-81	3.12%	1969-71 to 1979-81	2.57%	1969-71 to 1979-81	2.69%	2.79%	1969-71 to 1979-81	10.41%
1970-72 to 1980-82	3.28%	1970-72 to 1980-82	3.00%	1970-72 to 1980-82	2.41%	2.90%	1970-72 to 1980-82	10.42%
1971-73 to 1981-83	3.54%	1971-73 to 1981-83	4.13%	1971-73 to 1981-83	2.27%	3.32%	1971-73 to 1981-83	10.22%
1972-74 to 1982-84	3.84%	1972-74 to 1982-84	5.40%	1972-74 to 1982-84	2.42%	3.89%	1972-74 to 1982-84	10.03%
1973-75 to 1983-85	4.17%	1973-75 to 1983-85	6.30%	1973-75 to 1983-85	2.73%	4.40%	1973-75 to 1983-85	9.96%
1974-76 to 1984-86	4.43%	1974-76 to 1984-86	6.30%	1974-76 to 1984-86	3.14%	4.63%	1974-76 to 1984-86	9.77%
1975-77 to 1985-87	4.65%	1975-77 to 1985-87	5.85%	1975-77 to 1985-87	3.41%	4.64%	1975-77 to 1985-87	9.34%
1976-78 to 1986-88	4.73%	1976-78 to 1986-88	5.82%	1976-78 to 1986-88	3.53%	4.69%	1976-78 to 1986-88	8.80%
1977-79 to 1987-89	4.80%	1977-79 to 1987-89	5.93%	1977-79 to 1987-89	3.60%	4.77%	1977-79 to 1987-89	8.32%
1978-80 to 1988-90	4.86%	1978-80 to 1988-90	5.81%	1978-80 to 1988-90	3.72%	4.79%	1978-80 to 1988-90	7.92%
1979-81 to 1989-91	4.91%	1979-81 to 1989-91	5.32%	1979-81 to 1989-91	3.95%	4.72%	1979-81 to 1989-91	7.38%
1980-82 to 1990-92	4.87%	1980-82 to 1990-92	4.13%	1980-82 to 1990-92	4.05%	4.35%	1980-82 to 1990-92	7.06%
1981-83 to 1991-93	4.65%	1981-83 to 1991-93	2.60%	1981-83 to 1991-93	3.95%	3.74%	1981-83 to 1991-93	6.72%
1982-84 to 1992-94	4.33%	1982-84 to 1992-94	1.46%	1982-84 to 1992-94	3.72%	3.17%	1982-84 to 1992-94	6.49%
1983-85 to 1993-95	3.98%	1983-85 to 1993-95	1.24%	1983-85 to 1993-95	3.48%	2.90%	1983-85 to 1993-95	6.12%
1984-86 to 1994-96	3.72%	1984-86 to 1994-96	1.38%	1984-86 to 1994-96	3.23%	2.78%	1984-86 to 1994-96	5.89%
1985-87 to 1995-97	3.33%	1985-87 to 1995-97	1.10%	1985-87 to 1995-97	2.89%	2.44%	1985-87 to 1995-97	5.81%
1986-88 to 1996-98	2.97%	1986-88 to 1996-98	0.99%	1986-88 to 1996-98	2.69%	2.22%	1986-88 to 1996-98	5.73%
1987-89 to 1997-99	2.53%	1987-89 to 1997-99	0.83%	1987-89 to 1997-99	2.58%	1.98%	1987-89 to 1997-99	5.63%
Average	3.99%	Average	3.62%	Average	3.18%		Average	8.10%

Average of 10-year Rolling Averages EPS, DPS and BVPS 3.59%

Sources: Value Line Investment Survey and St. Louis Federal Reserve Website

The Empire District Electric Company
Case No. ER-2014-0351

Updated Multiple-Stage Discounted Cash Flow (DCF) Estimated Costs of Common Equity for "the 2012 Rate Cases'" Comparable Electric Utility Companies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Company Name	Annualized Quarterly Dividend	Growth Years 1-5	6	7	Growth Years 8	9	10	Growth in Perpetuity	Cost of Equity
Alliant Energy	$2.04	4.90%	4.58%	4.27%	3.95%	3.63%	3.32%	3.00%	6.80%
American Electric Power	$2.12	5.18%	4.82%	4.45%	4.09%	3.73%	3.36%	3.00%	7.34%
Cleco Corp.	$1.60	4.00%	3.83%	3.67%	3.50%	3.33%	3.17%	3.00%	6.34%
Great Plains Energy	$0.98	4.62%	4.35%	4.08%	3.81%	3.54%	3.27%	3.00%	7.21%
IDACORP, Inc.	$1.88	4.00%	3.83%	3.67%	3.50%	3.33%	3.17%	3.00%	6.32%
Pinnacle West Capital	$2.38	4.00%	3.83%	3.67%	3.50%	3.33%	3.17%	3.00%	7.19%
Southern Company	$2.10	3.71%	3.59%	3.47%	3.36%	3.24%	3.12%	3.00%	7.78%
Westar Energy, Inc.	$1.40	3.38%	3.32%	3.25%	3.19%	3.13%	3.06%	3.00%	6.85%
Wisconsin Energy	$1.69	5.27%	4.89%	4.51%	4.14%	3.76%	3.38%	3.00%	7.09%
Xcel Energy	$1.20	4.97%	4.64%	4.31%	3.99%	3.66%	3.33%	3.00%	7.16%
								Average	**7.01%**
								Average w/o Cleco and Wisconsin Energy	**7.08%**

Sources: Column 1 = SNL Financial
Column 8 = See range of averages from Schedules 13-1 through Schedule 13-4.

The Empire District Electric Company
Case No. ER-2014-0351

Updated Multiple-Stage Discounted Cash Flow (DCF) Estimated Costs of Common Equity for "the 2012 Rate Cases'" Comparable Electric Utility Companies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Company Name	Annualized Quarterly Dividend	Growth Years 1-5	6	7	Growth Years 8	9	10	Growth in Perpetuity	Cost of Equity
Alliant Energy	$2.04	4.90%	4.67%	4.43%	4.20%	3.97%	3.73%	3.50%	7.20%
American Electric Power	$2.12	5.18%	4.90%	4.62%	4.34%	4.06%	3.78%	3.50%	7.72%
Cleco Corp.	$1.60	4.00%	3.92%	3.83%	3.75%	3.67%	3.58%	3.50%	6.74%
Great Plains Energy	$0.98	4.62%	4.43%	4.25%	4.06%	3.87%	3.69%	3.50%	7.59%
IDACORP, Inc.	$1.88	4.00%	3.92%	3.83%	3.75%	3.67%	3.58%	3.50%	6.73%
Pinnacle West Capital	$2.38	4.00%	3.92%	3.83%	3.75%	3.67%	3.58%	3.50%	7.58%
Southern Company	$2.10	3.71%	3.68%	3.64%	3.61%	3.57%	3.54%	3.50%	8.15%
Westar Energy, Inc.	$1.40	3.38%	3.40%	3.42%	3.44%	3.46%	3.48%	3.50%	7.25%
Wisconsin Energy	$1.69	5.27%	4.98%	4.68%	4.39%	4.09%	3.80%	3.50%	7.48%
Xcel Energy	$1.20	4.97%	4.73%	4.48%	4.24%	3.99%	3.75%	3.50%	7.55%
								Average	**7.40%**
								Average w/o Cleco and Wisconsin Energy	**7.47%**

Sources: Column 1 = SNL Financial
Column 8 = See range of averages from Schedules 13-1 through Schedule 13-4.

The Empire District Electric Company
Case No. ER-2014-0351

Updated Multiple-Stage Discounted Cash Flow (DCF) Estimated Costs of Common Equity for "the 2012 Rate Cases'" Comparable Electric Utility Companies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Company Name	Annualized Quarterly Dividend	Growth Years 1-5	6	7	Growth Years 8	9	10	Growth in Perpetuity	Cost of Equity
Alliant Energy	$2.04	4.90%	4.75%	4.60%	4.45%	4.30%	4.15%	4.00%	7.60%
American Electric Power	$2.12	5.18%	4.98%	4.79%	4.59%	4.39%	4.20%	4.00%	8.11%
Cleco Corp.	$1.60	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	7.15%
Great Plains Energy	$0.98	4.62%	4.52%	4.41%	4.31%	4.21%	4.10%	4.00%	7.99%
IDACORP, Inc.	$1.88	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	7.14%
Pinnacle West Capital	$2.38	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	7.97%
Southern Company	$2.10	3.71%	3.76%	3.81%	3.86%	3.90%	3.95%	4.00%	8.53%
Westar Energy, Inc.	$1.40	3.38%	3.48%	3.59%	3.69%	3.79%	3.90%	4.00%	7.64%
Wisconsin Energy	$1.69	5.27%	5.06%	4.85%	4.64%	4.42%	4.21%	4.00%	7.87%
Xcel Energy	$1.20	4.97%	4.81%	4.65%	4.49%	4.32%	4.16%	4.00%	7.94%
								Average	**7.79%**
								Average w/o Cleco and Wisconsin Energy	**7.86%**

Sources: Column 1 = SNL Financial
Column 8 = See range of averages from Schedules 13-1 through Schedule 13-4.

The Empire District Electric Company
Case No. ER-2014-0351

Backdated Multiple-Stage Discounted Cash Flow (DCF) Estimated Costs of Common Equity for the Comparable Electric Utility Companies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Company Name	Annualized Quarterly Dividend	Growth Years 1-5	6	7	Growth Years 8	9	10	Growth in Perpetuity	Cost of Equity
Alliant Energy	$1.80	6.18%	5.65%	5.12%	4.59%	4.06%	3.53%	3.00%	8.17%
American Electric Power	$1.88	3.09%	3.08%	3.06%	3.05%	3.03%	3.02%	3.00%	8.66%
CMS Energy Corp.	$0.96	5.90%	5.42%	4.93%	4.45%	3.97%	3.48%	3.00%	8.36%
DTE Energy Company	$2.35	4.38%	4.15%	3.92%	3.69%	3.46%	3.23%	3.00%	8.05%
Great Plains Energy	$0.85	7.63%	6.86%	6.09%	5.32%	4.54%	3.77%	3.00%	8.53%
OGE Energy Corp.	$0.79	5.87%	5.39%	4.91%	4.44%	3.96%	3.48%	3.00%	6.71%
Pinnacle West Capital	$2.10	6.18%	5.65%	5.12%	4.59%	4.06%	3.53%	3.00%	8.51%
Portland General Electric Compa	$1.06	4.35%	4.13%	3.90%	3.68%	3.45%	3.23%	3.00%	8.05%
Southern Company	$1.89	5.33%	4.94%	4.55%	4.17%	3.78%	3.39%	3.00%	8.13%
TECO Energy, Inc.	$0.88	5.20%	4.83%	4.47%	4.10%	3.73%	3.37%	3.00%	9.07%
Westar Energy, Inc.	$1.32	5.75%	5.29%	4.83%	4.38%	3.92%	3.46%	3.00%	8.85%
Xcel Energy	$1.04	4.65%	4.38%	4.10%	3.83%	3.55%	3.28%	3.00%	7.72%
								Average	**8.23%**
								Average without OGE and TECO	**8.30%**

Sources: Column 1 = SNL Financial
Column 8 = See range of averages from Schedules 13-1 through Schedule 13-4.

The Empire District Electric Company
Case No. ER-2014-0351

Backdated Multiple-Stage Discounted Cash Flow (DCF) Estimated Costs of Common Equity for the Comparable Electric Utility Companies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Company Name	Annualized Quarterly Dividend	Growth Years 1-5	6	7	Growth Years 8	9	10	Growth in Perpetuity	Cost of Equity
Alliant Energy	$1.80	6.18%	5.73%	5.29%	4.84%	4.39%	3.95%	3.50%	8.53%
American Electric Power	$1.88	3.09%	3.16%	3.23%	3.30%	3.36%	3.43%	3.50%	8.47%
CMS Energy Corp.	$0.96	5.90%	5.50%	5.10%	4.70%	4.30%	3.90%	3.50%	8.67%
DTE Energy Company	$2.35	4.38%	4.23%	4.09%	3.94%	3.79%	3.65%	3.50%	8.13%
Great Plains Energy	$0.85	7.63%	6.94%	6.25%	5.57%	4.88%	4.19%	3.50%	9.15%
OGE Energy Corp.	$0.79	5.87%	5.48%	5.08%	4.69%	4.29%	3.90%	3.50%	7.07%
Pinnacle West Capital	$2.10	6.18%	5.73%	5.29%	4.84%	4.39%	3.95%	3.50%	8.87%
Portland General Electric	$1.06	4.35%	4.21%	4.07%	3.93%	3.78%	3.64%	3.50%	8.12%
Southern Company	$1.89	5.33%	5.03%	4.72%	4.42%	4.11%	3.81%	3.50%	8.36%
TECO Energy, Inc.	$0.88	5.20%	4.92%	4.63%	4.35%	4.07%	3.78%	3.50%	9.23%
Westar Energy, Inc.	$1.32	5.75%	5.38%	5.00%	4.63%	4.25%	3.88%	3.50%	9.12%
Xcel Energy	$1.04	4.65%	4.46%	4.27%	4.08%	3.88%	3.69%	3.50%	7.86%
								Average	**8.47%**
								Average without OGE and TECO	**8.53%**

Sources: Column 1 = SNL Financial
Column 8 = See range of averages from Schedules 13-1 through Schedule 13-4.

The Empire District Electric Company
Case No. ER-2014-0351

Backdated Multiple-Stage Discounted Cash Flow (DCF) Estimated Costs of Common Equity for the Comparable Electric Utility Companies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Company Name	Annualized Quarterly Dividend	Growth Years 1-5	6	7	Growth Years 8	9	10	Growth in Perpetuity	Cost of Equity
Alliant Energy	$1.80	6.18%	5.82%	5.45%	5.09%	4.73%	4.36%	4.00%	8.91%
American Electric Power	$1.88	3.09%	3.24%	3.39%	3.55%	3.70%	3.85%	4.00%	8.84%
CMS Energy Corp.	$0.96	5.90%	5.58%	5.27%	4.95%	4.63%	4.32%	4.00%	9.04%
DTE Energy Company	$2.35	4.38%	4.32%	4.25%	4.19%	4.13%	4.06%	4.00%	8.51%
Great Plains Energy	$0.85	7.63%	7.03%	6.42%	5.82%	5.21%	4.61%	4.00%	9.51%
OGE Energy Corp.	$0.79	5.87%	5.56%	5.25%	4.94%	4.62%	4.31%	4.00%	7.47%
Pinnacle West Capital	$2.10	6.18%	5.82%	5.45%	5.09%	4.73%	4.36%	4.00%	9.24%
Portland General Electric Company	$1.06	4.35%	4.29%	4.23%	4.18%	4.12%	4.06%	4.00%	8.50%
Southern Company	$1.89	5.33%	5.11%	4.89%	4.67%	4.44%	4.22%	4.00%	8.73%
TECO Energy, Inc.	$0.88	5.20%	5.00%	4.80%	4.60%	4.40%	4.20%	4.00%	9.58%
Westar Energy, Inc.	$1.32	5.75%	5.46%	5.17%	4.88%	4.58%	4.29%	4.00%	9.48%
Xcel Energy	$1.04	4.65%	4.54%	4.43%	4.33%	4.22%	4.11%	4.00%	8.25%
								Average	**8.84%**
								Average without OGE and TECO	**8.90%**

Sources: Column 1 = SNL Financial
Column 8 = See range of averages from Schedules 13-1 through Schedule 13-4.

Capital Asset Pricing Model (CAPM) Costs of Common Equity Estimates
Based on Historical Return Differences Between Common Stocks and Long-Term U.S. Treasuries
for the Comparable Electric Utility Companies

	(1)	(2)	(3)	(4)	(5)	(6)
Company Name	Risk Free Rate	Beta	Arithmetic Average Market Risk Premium (1926-2013)	Geometric Average Market Risk Premium (1926-2013)	Arithmetic CAPM Cost of Common Equity (1926-2013)	Geometric CAPM Cost of Common Equity (1926-2013)
Alliant Energy	2.97%	0.83	6.20%	4.64%	8.13%	6.83%
Ameren Corp.	2.97%	0.76	6.20%	4.64%	7.67%	6.49%
American Electric Power	2.97%	0.73	6.20%	4.64%	7.47%	6.33%
CMS Energy Corp.	2.97%	0.77	6.20%	4.64%	7.72%	6.52%
DTE Energy Company	2.97%	0.75	6.20%	4.64%	7.63%	6.46%
Great Plains Energy	2.97%	0.87	6.20%	4.64%	8.38%	7.02%
OGE Energy Corp.	2.97%	0.93	6.20%	4.64%	8.71%	7.27%
Pinnacle West Capital	2.97%	0.78	6.20%	4.64%	7.80%	6.58%
PNM Resources, Inc.	2.97%	0.88	6.20%	4.64%	8.42%	7.05%
Portland General Electric Co.	2.97%	0.79	6.20%	4.64%	7.88%	6.65%
Southern Company	2.97%	0.56	6.20%	4.64%	6.43%	5.56%
TECO Energy Inc.	2.97%	0.86	6.20%	4.64%	8.30%	6.96%
Westar Energy, Inc.	2.97%	0.78	6.20%	4.64%	7.80%	6.58%
Xcel Energy	2.97%	0.66	6.20%	4.64%	7.09%	6.06%
Average		**0.78**			**7.82%**	**6.60%**
Average without OGE and TECO		**0.76**			**7.70%**	**6.51%**

Column 1 = The appropriate yield is equal to the average 30-year U.S. Treasury Bond yield for October, November and December 2014 which was obtained from the St. Louis Federal Reserve website at http://research.stlouisfed.org/fred2/data/GS30.txt

Column 2 = Beta is a measure of the movement and relative risk of an individual stock to the market as a whole. Staff calculated the unadjusted Beta for each company using an Excel spreadsheet designed specifically to be used with the SNL database market and financial information, then adjusted each Beta using the Blume adjustment formula as used by Value Line: Adjusted Beta = 0.35 + 0.67 * Unadjusted Beta

Column 3 = The Market Risk Premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk free investment. The appropriate Market Risk Premium for the period 1926 - 2013 was determined to be 6 20% based on an arithmetic average as calculated in Duff & Phelps 2014 Valuation Handbook: A Guide to the Cost of Capital.

Column 4 = The Market Risk Premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk free investr a risk free investment. The appropriate Market Risk Premium for the period 1926 - 2013 was determined to be 4.64% based on a geometric averag geometric average calculated by using the arithmetic average as calculated in Duff & Phelps 2014 Valuation Handbook: A Guide to the Cost of Capital.

$R_A = R_g + (\sigma^2/2)$
R_A = Arithmetic Return Average
R_g = Geometric Return Average
σ = standard deviation of equity returns

Column 5 = (Column 1 + (Column 2 * Column 3)).

Column 6 = (Column 1 + (Column 2 * Column 4)).

Recommended Allowed Rate of Return as of August 31, 2014 for The Empire District Electric Company

Capital Component	Percentage of Capital	Embedded Cost	Allowed Rate of Return Using Common Equity Return of: 9.25%	**9.50%**	9.75%
Common Stock Equity	51.71%	-----	4.78%	**4.91%**	5.04%
Long-Term Debt	48.29%	5.56%	2.69%	**2.69%**	2.69%
Total	**100.00%**		7.47%	**7.60%**	7.73%

Notes:

See Schedule 7 for the Capital Structure Ratios.

MISSOURI PUBLIC SERVICE COMMISSION

STAFF REPORT

COST OF SERVICE

REVENUE REQUIREMENT

APPENDIX 3

Other Staff Schedules

THE EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. ER-2014-0351

Jefferson City, Missouri
January 2015

THE VALUE *of* ELECTRICITY.

You depend on it every minute of every day. In fact, no other single product touches so many aspects of our daily lives or delivers more value than electricity. It keeps our homes comfortable, powers communication and technology, lights our communities, and fuels business and industry. ***It's a big job.***

That's why we're always here, working to provide energy that is safe, reliable, environmentally responsible, and a good value.

COMPARE THE COST

A home using 1000 kilowatt hours of energy per month has a bill of about $120*. That's about $4 a day to power your entire home – about the same price as a fast food meal, a specialty coffee, or a gallon of gas. **That's value.**

EMPIRE

www.empiredistrict.com

*Based on rates as of May 31, 2013, for a Missouri residential customer of Empire District

Based on rates as of May 31, 2013, for a Missouri residential customer of Empire District

THE VALUE *of* ELECTRICITY.

You depend on it every minute of every day. In fact, no other single product touches so many aspects of our daily lives or delivers more value than electricity. It keeps our homes comfortable, powers communication and technology, lights our communities, and fuels business and industry.
It's a big job.

That's why we're always here, working to provide energy that is safe, reliable, environmentally responsible, and a good value.

COMPARE THE COST. Consider your family's monthly cost for mobile devices, satellite television, or high-speed internet service. Electricity powers all of them, and your entire home, for a comparable cost.* **That's value.**

EMPIRE

www.empiredistrict.com

Based on a home using 1000 kilowatt hours of energy per month.
Rates as of May 31, 2013, for a Missouri residential customer of Empire District

Schedule JAR(DEP)-1
The Empire District Electric Company
Staff Recommended Annual Depreciation Rates
ER-2014-0351

Account Number	Account Description	Recommended Retirement Rate (%)	Recommended Net Salvage	Reccomended Depreciation Rate (%)
	STEAM PRODUCTION PLANT			
	Riverton 8 & Common			
311	Structures and Improvements	3.51%	-5.00%	3.69%
312	Boiler Plant Equipment	2.94%	-5.00%	3.09%
314	Turbogenerator Units	2.28%	-5.00%	2.39%
315	Accessory Electric Equipment	1.75%	-5.00%	1.84%
316	Miscellaneous Power Plant Equipment	5.02%	-5.00%	5.27%
	Asbury			
311	Structures and Improvements	2.68%	-5.00%	2.81%
312	Boiler Plant Equipment	5.03%	-5.00%	5.28%
314	Turbogenerator Units	2.70%	-5.00%	2.84%
315	Accessory Electric Equipment	3.14%	-5.00%	3.30%
316	Miscellaneous Power Plant Equipment	3.76%	-5.00%	3.95%
	Iatan 1			
311	Structures and Improvements	1.99%	-5.00%	2.09%
312	Boiler Plant Equipment	3.02%	-5.00%	3.17%
314	Turbogenerator Units	2.32%	-5.00%	2.44%
315	Accessory Electric Equipment	3.89%	-5.00%	4.08%
316	Miscellaneous Power Plant Equipment	3.11%	-5.00%	3.27%
	Iatan 2			
311	Structures and Improvements	2.00%	-5.00%	2.10%
312	Boiler Plant Equipment	2.00%	-5.00%	2.10%
314	Turbogenerator Units	2.00%	-5.00%	2.10%
315	Accessory Electric Equipment	2.00%	-5.00%	2.10%
316	Miscellaneous Power Plant Equipment	2.00%	-5.00%	2.10%
	Iatan Common			
311	Structures and Improvements	2.00%	-5.00%	2.10%
312	Boiler Plant Equipment	2.00%	-5.00%	2.10%
314	Turbogenerator Units	2.00%	-5.00%	2.10%
315	Accessory Electric Equipment	2.00%	-5.00%	2.10%
316	Miscellaneous Power Plant Equipment	2.00%	-5.00%	2.10%
	Plum Point			
311	Structures and Improvements	2.00%	-5.00%	2.10%
312	Boiler Plant Equipment	2.00%	-5.00%	2.10%
314	Turbogenerator Units	2.00%	-5.00%	2.10%
315	Accessory Electric Equipment	2.00%	-5.00%	2.10%
316	Miscellaneous Power Plant Equipment	2.00%	-5.00%	2.10%
	HYDRAULIC PRODUCTION PLANT			
331	Structures and Improvements	1.91%	-5.00%	2.01%
332	Reservoirs, Dams and Waterways	0.93%	-5.00%	0.98%
333	Waterwheels, Turbines and Generators	2.84%	-5.00%	2.98%
334	Accessory Electric Equipment	1.87%	-5.00%	1.96%
335	Miscellaneous Power Plant Equipment	3.36%	-5.00%	3.53%

Schedule JAR(DEP)-1
The Empire District Electric Company
Staff Recommended Annual Depreciation Rates
ER-2014-0351

Account Number	Account Description	Recommended Retirement Rate (%)	Recommended Net Salvage	Reccomended Depreciation Rate (%)
	OTHER PRODUCTION PLANT			
	Riverton 9,10 &11			
341	Structures and Improvements	1.67%	-2.00%	1.70%
342	Fuel Holders, Producers and Access.	2.00%	-2.00%	2.04%
343	Prime Movers	2.11%	4.00%	2.03%
344	Generators	2.00%	4.00%	1.92%
345	Accessory Electric Equipment	1.91%	-2.00%	1.95%
346	Miscellaneous Power Plant Equipment	2.00%	-2.00%	2.04%
	Riverton 12			
341	Structures and Improvements	2.15%	-2.00%	2.19%
342	Fuel Holders, Producers and Access.	2.97%	-2.00%	3.03%
343	Prime Movers	2.43%	4.00%	2.33%
344	Generators	2.17%	4.00%	2.08%
345	Accessory Electric Equipment	1.12%	-2.00%	1.14%
346	Miscellaneous Power Plant Equipment	2.70%	-2.00%	2.75%
	Energy Center 1&2			
341	Structures and Improvements	2.15%	-2.00%	2.19%
342	Fuel Holders, Producers and Access.	2.97%	-2.00%	3.03%
343	Prime Movers	2.43%	4.00%	2.33%
344	Generators	2.17%	4.00%	2.08%
345	Accessory Electric Equipment	1.12%	-2.00%	1.14%
346	Miscellaneous Power Plant Equipment	2.70%	-2.00%	2.75%
	Energy Center 3&4 (FT8)			
341	Structures and Improvements	2.00%	-2.00%	2.04%
342	Fuel Holders, Producers and Access.	2.00%	-2.00%	2.04%
343	Prime Movers	2.06%	4.00%	1.98%
344	Generators	2.01%	4.00%	1.93%
345	Accessory Electric Equipment	2.01%	-2.00%	2.05%
346	Miscellaneous Power Plant Equipment	2.00%	-2.00%	2.04%
	Stateline CT			
341	Structures and Improvements	4.20%	-2.00%	4.28%
342	Fuel Holders, Producers and Access.	2.27%	-2.00%	2.32%
343	Prime Movers	3.67%	4.00%	3.52%
344	Generators	2.72%	4.00%	2.61%
345	Accessory Electric Equipment	2.36%	-2.00%	2.41%
346	Miscellaneous Power Plant Equipment	3.80%	-2.00%	3.88%
	Stateline CC			
341	Structures and Improvements	2.07%	-2.00%	2.11%
342	Fuel Holders, Producers and Access.	4.52%	-2.00%	4.61%
343	Prime Movers	2.11%	4.00%	2.03%
344	Generators	2.54%	4.00%	2.44%
345	Accessory Electric Equipment	2.15%	-2.00%	2.19%
346	Miscellaneous Power Plant Equipment	2.04%	-2.00%	2.08%

Schedule JAR(DEP)-1
The Empire District Electric Company
Staff Recommended Annual Depreciation Rates
ER-2014-0351

Account Number	Account Description	Recommended Retirement Rate (%)	Recommended Net Salvage	Reccomended Depreciation Rate (%)
	TRANSMISSION PLANT			
352	Structures & Improvements	1.82%	-15.00%	2.09%
353	Station Equipment	2.00%	-10.00%	2.20%
354	Towers & Fixtures	1.54%	-25.00%	1.92%
355	Poles & Fixtures	1.67%	-100.00%	3.33%
356	Overhead Conductors	1.54%	-40.00%	2.15%
	DISTRIBUTION PLANT			
361	Structures & Improvements	1.67%	-25.00%	2.08%
362	Station Equipment	2.22%	15.00%	1.89%
364	Poles, Towers & Fixtures	2.17%	-100.00%	4.35%
365	Overhead Conductors	1.89%	-100.00%	3.77%
366	Underground Conduit	2.70%	-45.00%	3.92%
367	Underground Conductors	3.13%	-15.00%	3.59%
368	Transformers	2.22%	-25.00%	2.78%
369	Services	2.50%	-100.00%	5.00%
370	Meters	2.27%	0.00%	2.27%
371	Meter Installations	4.00%	-45.00%	5.80%
373	Street Lighting	2.08%	-50.00%	3.13%
	GENERAL PLANT			
390	Structures & Improvements	2.50%	-10.00%	2.75%
391.1	Office Furniture and Equipment	5.00%	0.00%	5.00%
391.2	Computer Equipment	10.00%	0.00%	10.00%
392	Transportation Equipment	8.33%	15.00%	7.08%
393	Stores Equipment	3.33%	5.00%	3.17%
394	Tools, Shop & Garage Equipment	5.00%	10.00%	4.50%
395	Laboratory Equipment	2.63%	0.00%	2.63%
396	Power Operated Equipment	6.67%	5.00%	6.33%
397	Communication Equipment	4.00%	0.00%	4.00%
398	Miscellaneous Equipment	4.55%	0.00%	4.55%