

MISSOURI PUBLIC SERVICE COMMISSION

STAFF REPORT

CLASS COST OF SERVICE

APPENDIX 1

Staff Credentials

57988 Exhibit No. 108
Date 8-15-19 Reporter COS
File No. GR-2019-0077

UNION ELECTRIC COMPANY,
d/b/a AMEREN MISSOURI

CASE NO. GR-2019-0077

*Jefferson City, Missouri
May 2019*

PENGAD 800-631-6369

EXHIBIT

108

APPENDIX 1

STAFF CREDENTIALS

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Daniel I. Beck, PE

Manager of Engineering Analysis Unit
Operational Analysis Department
Commission Staff Division

Missouri Public Service Commission
P.O. Box 360
Jefferson City, MO 65102

I graduated with a Bachelor of Science Degree in Industrial Engineering from the University of Missouri at Columbia. Upon graduation, I was employed by the Navy Plant Representative Office in St. Louis, Missouri as an Industrial Engineer. I began my employment at the Commission in November, 1987, in the Research and Planning Department of the Utility Division (later renamed the Economic Analysis Department of the Policy and Planning Division) where my duties consisted of weather normalization, load forecasting, integrated resource planning, cost-of-service and rate design. In December, 1997, I was transferred to the Tariffs/Rate Design Section of the Commission's Gas Department where my duties include weather normalization, annualization, tariff review, cost-of-service and rate design. In June 2001, I was transferred to the Engineering Analysis Section of the Energy Department, which was created by combining the Gas and Electric Departments. I became the Supervisor of the Engineering Analysis Section, Energy Department, Utility Operations Division in November 2005. Since that time my title has been changed to Manager of the Engineering Analysis Unit, Operational Analysis Department, Commission Staff Division and the Engineering Analysis Unit has added responsibilities in the area of depreciation.

I am a Registered Professional Engineer in the State of Missouri. My registration number is E-26953.

List of Cases in which prepared testimony was presented by:

DANIEL I. BECK, PE

Company Name	Case No.
Union Electric Company	EO-87-175
The Empire District Electric Company	EO-91-74
Missouri Public Service	ER-93-37
St. Joseph Power & Light Company	ER-93-41
The Empire District Electric Company	ER-94-174
Union Electric Company	EM-96-149
Laclede Gas Company	GR-96-193
Missouri Gas Energy	GR-96-285
Kansas City Power & Light Company	ET-97-113
Associated Natural Gas Company	GR-97-272
Union Electric Company	GR-97-393
Missouri Gas Energy	GR-98-140
Missouri Gas Energy	GT-98-237
Ozark Natural Gas Company, Inc.	GA-98-227
Laclede Gas Company	GR-98-374
St. Joseph Power & Light Company	GR-99-246
Laclede Gas Company	GR-99-315
Utilicorp United Inc. & St. Joseph Light & Power Co.	EM-2000-292
Union Electric Company d/b/a AmerenUE	GR-2000-512
Missouri Gas Energy	GR-2001-292
Laclede Gas Company	GR-2001-629
Union Electric Company d/b/a AmerenUE	GT-2002-70
Laclede Gas Company	GR-2001-629
Laclede Gas Company	GR-2002-356
Union Electric Company d/b/a AmerenUE	GR-2003-0517
Missouri Gas Energy	GR-2004-0209
Atmos Energy Corporation	GR-2006-0387
Missouri Gas Energy	GR-2006-0422
Union Electric Company d/b/a AmerenUE	GR-2007-0003
The Empire District Electric Company	EO-2007-0029/EE-2007-0030
Laclede Gas Company	GR-2007-0208
The Empire District Electric Company	EO-2008-0043

cont'd DANIEL I. BECK, PE
List of Cases in which
prepared testimony was presented

<u>Company Name</u>	<u>Case No.</u>
Missouri Gas Utility, Inc.	GR-2008-0060
The Empire District Electric Company	ER-2008-0093
Trigen Kansas City Energy Corporation	HR-2008-0300
Union Electric Company d/b/a AmerenUE	ER-2008-0318
Kansas City Power & Light Company	ER-2009-0089
KCP&L Greater Missouri Operations Company	ER-2009-0090
Missouri Gas Energy	GR-2009-0355
The Empire District Gas Company	GR-2009-0434
Union Electric Company d/b/a AmerenUE	ER-2010-0036
Laclede Gas Company	GR-2010-0171
Atmos Energy Corporation	GR-2010-0192
Kansas City Power & Light Company	ER-2010-0355
KCP&L Greater Missouri Operations Company	ER-2010-0356
Union Electric Company d/b/a Ameren Missouri	GR-2010-0363
Kansas City Power & Light Company	ER-2012-0174
KCP&L Greater Missouri Operations Company	ER-2012-0175
Chaney vs. Union Electric Company	EO-2011-0391
Veach vs. The Empire District Electric Company	EC-2012-0406
The Empire District Electric Company	ER-2012-0345
KCP&L Greater Missouri Operations Company	ET-2014-0059
Kansas City Power & Light Company	ET-2014-0071
Union Electric Company d/b/a Ameren Missouri	ET-2014-0085
Missouri Gas Energy	GR-2014-0007
Union Electric Company d/b/a Ameren Missouri	EA-2012-0281
Union Electric Company d/b/a Ameren Missouri	EA-2014-0136
Summit Natural Gas of Missouri, Inc.	GR-2014-0086
Grain Belt Express Clean Line LLC	EA-2014-0207
Union Electric Company d/b/a Ameren Missouri	ER-2014-0258
Kansas City Power & Light Company	ER-2014-0370
Ameren Transmission Company of Illinois	EA-2015-0146
KCP&L Greater Missouri Operations Company	EA-2015-0256

cont'd DANIEL I. BECK, PE
List of Cases in which
prepared testimony was presented

<u>Company Name</u>	<u>Case No.</u>
	Case No. GR-2019-0077
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KCP&L Greater Missouri Operations Company	ER-2016-0156
Union Electric Company d/b/a Ameren Missouri	ER-2016-0179
Kansas City Power & Light Company	ER-2016-0285
Grain Belt Express Clean Line LLC	EA-2016-0358
The Empire District Electric Company	EO-2017-0277
Spire Missouri, Inc. dba Spire's division Laclede Gas	GR-2017-0215
Spire Missouri, Inc. dba Spire's division Missouri Gas Energy	GR-2017-0216
Liberty Utilities	GR-2018-0013

KIM COX

Education and Employment Background and Credentials

I attended Central Missouri State University at Warrensburg, Missouri. In May 1996, I received a Bachelor of Science degree.

I am currently employed as a Utility Policy Analyst II with the Tariff/Rate Design Unit within the Operational Analysis Department of the Commission Staff Division of the Missouri Public Service Commission (Commission). I have been employed by the Commission since July 2009. From July 2009 to June 2013, I worked in the Tariffs/Rate Design Section of the Energy Unit as a Rate and Tariff Examiner III, where my duties consisted of analyzing applications, reviewing tariffs and making recommendations based upon those evaluations. On June 16, 2013, I assumed my current position as Utility Policy Analyst II within the same Section, where my duties consist of coordinating highly complex activities, analyzing applications, reviewing tariffs, and making recommendations based upon my evaluations. I currently serve on the NARUC Staff Subcommittee on Rate Design. Prior to joining the Commission, I held the position of a Quality Assurance Analyst in the regulatory field for ten years.

KIM COX

Summary of Case Involvement

	Company	Issue	Type of Filing
GR-2009-0434	The Empire District Gas Company	Weather Normalized Sales and Coincident-Peak Day Demand	Staff Report
GR-2010-0171	Laclede Gas Company	Weather Normalized Sales, Blocks and Coincident-Peak Day Demand	Staff Report
GR-2010-0171	Laclede Gas Company	Weather Normalized Sales	Rebuttal
GR-2010-0363	Union Electric d/b/a Ameren UE	Weather Normalized Sales, Blocks and Coincident-Peak Day Demand	Staff Report
GR-2010-0347	Southern Missouri Natural Gas	Weather Normalized Sales	Staff Report
GR-2010-0192	Atmos	Weather Normalized Sales and Coincident-Peak Day Demand	Staff Report
HR-2011-0241	Veolia	Weather Normalized Sales	Staff Report
ER-2012-0175	KCP&L and GMO	L&P Normalization and Annualization	Staff Report
GR-2014-0007 Coordinated	Missouri Gas Energy	Direct COS sponsor of Weather, Weather Normalization and Large Volume Customer Revenue Adjustment	Direct Testimony
GR-2014-0007 Coordinated	Missouri Gas Energy	Direct CCOS sponsor of Rate Design, Miscellaneous Tariff Issues, School Transportation Capacity, Gas Supply Incentive Plan and Staff's CCOS	Direct Testimony
GR-2014-0086	Summit Natural Gas	Lake Ozark Transportation	Staff Report
GR-2014-0152	Liberty Utilities	Special Contract, Large and Industrial Customers	Staff Report, Rebuttal and Surrebuttal
ER-2016-0023	Empire	Large Power Feed Mill Annualization	Staff Report

Cont'd Kim Cox
Summary of Case Involvement

	Company	Issue	Type of Filing
GR-2017-0215 & 0216	Spire Missouri Inc.	Executive Summary, Background, Test Year/True-Up Period and Staff's Revenue Requirement Recommendation	Staff Report
ER-2018-0145 & 0146	KCP&L and GMO	Rate Revenues and Customer Growth	Staff Report

Natelle Dietrich

Education and Work Experience

I received a Bachelor's of Arts Degree in English from the University of Missouri, St. Louis, and a Master's of Business Administration from William Woods University. During my tenure with the Commission, I have worked in many areas of telecommunications regulation. In October 2007, I became the Director of Utility Operations. The division was renamed the Tariff, Safety, Economic and Engineering Analysis Department in August 2011. In October 2015, I assumed my current position as Commission Staff Director. In this position, I oversee all aspects of the Commission Staff.

My responsibilities include involvement in several activities related to implementing sound energy policy in Missouri. I was the lead Director for the Commission's rulemakings on such things as the implementation of the Missouri Energy Efficiency Investment Act, the Chapter 22 rewrite, and the Commission's renewable energy standard regulations. Relevant activities relate to energy efficiency, demand side management, demand response and smart grid. I was a member of the Missouri Delegation to the Missouri/Moldova Partnership through NARUC and the US Agency for International Development.

I am a member of the National Association of Regulatory Utility Commissioners' Subcommittee on Rate Design and the Staff Subcommittee on Telecommunications. I serve on the Staff of the Federal/State Joint Board on Universal Service, serve as lead Staff for the Missouri Universal Service Board, and was a member of the Governor's MoBroadbandNow taskforce.

Natelle Dietrich
Case Summary

Presented testimony or analysis through affidavits on the following cases and proceedings:

- Case No. TA-99-405, an analysis of the appropriateness of a “payday loan” company providing prepaid telecommunications service.
- Case No. TX-2001-73, In the Matter of Proposed New Rules on Prepaid Calling Cards.
- Case No. TO-2001-455, the AT&T/Southwestern Bell Telephone Company arbitration, which included issues associated with unbundled network elements.
- Case No. TX-2001-512, In the Matter of Proposed Amendments to Commission Rule 4 CSR 240-33.010, 33.020, 33.030, 33.040, 33.060, 33.070, 33.080, 33.110, and 33.150 (telecommunications billing practices).
- Case No. TO-2002-222, the MCI/SWBT arbitration.
- Case No. TR-2002-251, In the Matter of the Tariffs Filed by Sprint Missouri, Inc. d/b/a Sprint to Reduce the Basic Rates by the Change in the CPI-TS as Required by 392.245(4), Updating its Maximum Allowable Prices for Non-Basic Services and Adjusting Certain Rates as Allowed by 392.245(11) and Reducing Certain Switched Access Rates and Rebalancing to Local Rates as Allowed by 392.245(9).
- Case No. TX-2002-1026, In the Matter of a Proposed Rulemaking to Implement the Missouri Universal Service Fund End-User Surcharge.
- Case No. TX-2003-0379, In the Matter of Proposed Amendments to Commission Rule 4 CSR 240-3.545, formerly 4 CSR 240-30.010 (tariff filing requirements).
- Case No. TX-2003-0380, In the Matter of Proposed Amendments to Commission Rules 4 CSR 240-2.060, 4 CSR 240-3.020, 4 CSR 240-3.510, 4 CSR 240-3.520, and 4 CSR 240-3.525 (competitive local exchange carrier filing requirements and merger-type transactions).
- Case No. TX-2003-0389, In the Matter of Proposed Amendment to Commission Rules 4 CSR 240-3.530 and 4 CSR 240-3.535, and New Rules 4 CSR 240-3.560 and 4 CSR 240-3.565 (telecommunications bankruptcies and cessation of operation).
- Case No. TX-2003-0445, In the Matter of a Proposed New Rule 4 CSR 240-33.160 Regarding Customer Proprietary Network Information.
- Case No. TX-2003-0487, In the Matter of Proposed Commission Rules 4 CSR 240-36.010, 36.020, 36.030, 36.040, 36.050, 36.060, 36.070, and 36.080 (arbitration and mediation rules).
- Case No. TX-2003-0565, In the Matter of a Proposed Rulemaking to Codify Procedures for Telecommunications Carriers to Seek Approval, Amendment and Adoption of Interconnection and Resale Agreements.
- Case Nos. TX-2004-0153 and 0154, in the Matter of Proposed Rule for 211 Service (emergency and permanent rules).
- Case Nos. TO-2004-0370, IO-2004-0467, TO-2004-0505 et al, In the Matter of the Petition of various small LECs for Suspension of the Federal Communications Commission Requirement to Implement Number Portability.

Natelle Dietrich

Case Summary

- Case No. TX-2005-0258, In the Matter of a New Proposed Rule 4 CSR 240-33.045 (placement and identification of charges on customer bills).
- Case No. TX-2005-0460, In the Matter of the Proposed Amendments to the Missouri Universal Service Fund Rules.
- Case No. TO-2006-0093, In the Matter of the Request of Southwestern Bell Telephone, L.P. d/b/a SBC Missouri, for Competitive Classification Pursuant to Section 392.245.6, RSMo (2205) – 30-day Petition.
- Case Nos. TC-2005-0357, IR-2006-0374, TM-2006-0306, the complaint case, earnings investigation and transfer of assets case to resolve issues related to Cass County Telephone Company, LP, LEC Long Distance, FairPoint Communications, Inc., FairPoint Communications Missouri Inc. d/b/a FairPoint Communications and ST Long Distance Inc. db/a FairPoint Communications Long Distance.
- Case No. TC-2006-0068, FullTel, Inc., v. CenturyTel of Missouri, LLC.
- Case No. TX-2006-0169, In the Matter of Proposed New Rule 4 CSR 240-3.570 Regarding Eligible Telecommunications Carrier Designations for Receipt of Federal Universal Service Fund Support.
- Case No. TX-2006-0429, In the Matter of a Proposed Amendment to 4 CSR 240-3.545 (one day tariff filings).
- Case No. TX-2007-0086, In the Matter of a Proposed Rulemaking to Create Chapter 37 – Number Pooling and Number Conservation Efforts
- Case No. TA-2009-0327, In the Matter of the Petition of TracFone Wireless, Inc. for Designation as an Eligible Telecommunications Carrier in the State of Missouri for the Limited Purpose of Offering Lifeline and Link Up Service to Qualified Households.
- Case No. RA-2009-0375, In the Matter of the application of Nexus Communications, Inc. dba TSI for Designation as an Eligible Telecommunications Carrier in the State of Missouri for the Limited Purpose of Offering Wireless Lifeline and Link Up Service to Qualifying Households.
- Case No. AX-2010-0061, Office of Public Counsel’s Petition for Promulgation of Rules Relating to Billing and Payment Standards for Residential Customers.
- Case No. GT-2009-0056, In the Matter of Laclede Gas Company’s Tariff Revision Designed to Clarify its Liability for Damages Occurring on Customer Piping and Equipment Beyond the Company’s Meter.
- Case No. ER-2012-0166, In the Matter of Union Electric Company d/b/a Ameren Missouri’s Tariffs to Increase Its Revenues for Electric Service. Energy Independence and Security Act of 2007 (EISA).
- Case No. ER-2012-0174, In the Matter of Kansas City Power & Light Company’s Request for Authority to Implement A General Rate Increase for Electric Service. Energy Independence and Security Act of 2007 (EISA).
- Case No. ER-2012-0175, In the Matter of KCP&L Greater Missouri Operations Company’s Request for Authority to Implement A General Rate Increase for Electric Service. Energy Independence and Security Act of 2007 (EISA).
- Case No. ER-2012-0345, In the Matter of Empire District Electric Company of Joplin, Missouri Tariff’s Increasing Rates for Electric Service Provided to

Case Summary

Customers in the Missouri Service Area of the Company. Energy Independence and Security Act of 2007 (EISA).

- File Nos. EO-2013-0396 and EO-2013-0431, In the Matter of the Joint Application of Entergy Arkansas, Inc., Mid South TransCo, LLC, Transmission Company Arkansas, LLC and ITC Midsouth LLC for Approval of Transfer of Assets and Certificate of Convenience and Necessity, and Merger and, in connection therewith, Certain Other Related Transactions; and In the Matter of Entergy Arkansas, Inc.'s Notification of Intent to Change Functional Control of Its Missouri Electric Transmission Facilities to the Midwest Independent Transmission System Operator Inc. Regional Transmission System Organization or Alternative Request to Change Functional Control and Motions for Waiver and Expedited Treatment, respectively.
- Case No. MX-2013-0432, In the Matter of a Proposed Rulemaking to Revise Manufactured Housing Rules Regarding Installation and Monthly Reporting Requirements.
- Case No. TX-2013-0324, In the Matter of a Proposed Rulemaking to the Missouri Universal Service Fund.
- Case No. EO-2014-0095, In the Matter of Kansas City Power & Light Company's Filing for Approval of Demand-Side Programs and for Authority to Establish Demand-Side Programs Investment Mechanism.
- Case No. 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.
- Case No. ER-2014-0370, In the Matter of Kansas City Power & Light Company's Request for Authority to Implement a General Rate Increase for Electric Service.
- Case No. WR-2015-0301, In the Matter of Missouri-American Water Company's Request for Authority to Implement a General Rate Increase for Water and Sewer Service Provided in Missouri Service Areas.
- Case No. ER-2016-0156, In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement a General Rate Increase for Electric Service.
- Case No. ET-2016-0246, In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Approval of a Tariff Setting a Rate for Electric Vehicle Charging Stations.
- Case No. ER-2016-0285, In the Matter of Kansas City Power & Light Company's Request for Authority to Implement a General Rate Increase for Electric Service.
- Case No. ER-2016-0179, In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariffs to Increase its Revenues for Electric Service.
- Case No. EE-2017-0113, In the Matter of the Joint Application of Great Plains Energy Incorporated, Kansas City Power & Light Company and KCP&L Greater Missouri Operations Company for a Variance from the Commission's Affiliate Transactions Rule, 4 CSR 240-20.015

Natelle Dietrich

Case Summary

- Case No. EA-2016-0358, 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 345kV Transmission Line
- Case No. EM-2017-0226, In the Matter of the Application of Great Plains Energy Incorporated for Approval of its Acquisition of Westar Energy, Inc.
- Case No. GR-2017-0215, In the Matter of Laclede Gas Company's Request to Increase its Revenues for Gas Service.
- Case No. GR-2017-0216, In the Matter of Laclede Gas Company d/b/a Missouri Gas Energy's Request to increase its Revenues for Gas Service.
- Case No. WR-2017-0259, In the Matter of the Rate Increase Request of Indian Hills Utility Operating Company, Inc.
- Case No. WR-2017-0285, In the Matter of Missouri-American Water Company's Request for Authority to Implement General Rate Increase for Water and Sewer Service Provided in Missouri Service Areas.
- Case No. EM-2018-0012, In the Matter of the Application of Great Plains Energy Incorporated for Approval of its Merger with Westar Energy, Inc.
- Case No. EO-2018-0092, In the Matter of the Application of The Empire District Electric Company for Approval of Its Customer Savings Plan.
- Case No. GR-2018-0013, In the Matter of Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities' Tariff Revisions Designed to Implement a General Rate Increase for Natural Gas Service in the Missouri Service Areas of the Company.
- Case No. ER-2018-0145, In the Matter of Kansas City Power & Light Company's Request for Authority to Implement a General Rate Increase for Electric Service.
- Case No. ER-2018-0146, In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement a General Rate Increase for Electric Service.
- Case No. EO-2018-0211, In the Matter of Union Electric Company d/b/a Ameren Missouri's 3rd Filing to Implement Regulatory Changes in Furtherance of Energy Efficiency as Allowed by MEEIA.
- Case Nos. WM-2018-0116 and SM-2018-0117, In the Matter of the Application of Confluence Rivers Utility Operating Company, Inc. to Acquire Certain Water and Sewer Assets, For a Certificate of Convenience and Necessity, and, in Connection Therewith, To Issue Indebtedness and Encumber Assets.
- Case No. EA-2019-0010, In the Matter of the Application of The Empire District Electric Company for Certificates of Convenience and Necessity Related to Wind Generation Facilities.
- Case No. EM-2019-0150, In the Matter of the Joint Application of Invenergy Transmission LLC, Invenergy Investment Company LLC, Grain Belt Express Clean Line LLC and Grain Belt Express Holding LLC for an Order Approving the Acquisition by Invenergy Transmission LLC of Grain Belt Express Clean Line LLC.

Natelle Dietrich

Case Summary

- Case No. GR-2019-0077, In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariffs to Increase its Revenues for Natural Gas Service
- Actively participated in or prepared comments on numerous issues on behalf of the Commission to be filed at the Federal Communications Commission.
- Prepared congressional testimony on behalf of the Commission on number conservation efforts in Missouri.
- A principal author on Missouri Public Service Commission Comments on the Reduction of Carbon Emissions in Missouri under Section 111(d) of the Clean Air Act.
- A principal author on Missouri Public Service Commission Comments on the Environmental Protection Agency's "Emission Guidelines for Existing Stationary Sources: Electric Generating Unity".

Commission Arbitration Advisory Lead Staff for the following cases:

- Case No. TO-2005-0336, Southwestern Bell Telephone, L.P., d/b/a SBC Missouri's Petition for Compulsory Arbitration of Unresolved Issues For a Successor Interconnection Agreement to the Missouri 271 Agreement ("M2A").
- Case No. IO-2005-0468, In the Matter of the Petition of Alma Telephone Company for Arbitration of Unresolved Issues Pertaining to a Section 251(b)(5) Agreement with T-Mobile USA, Inc.
- Case No. TO-2006-0147 et al, In the Matter of the Petition for Arbitration of Unresolved Issues in a Section 251(b)(5) Agreement with T-Mobile USA, Inc and Cingular Wireless.
- Case No. TO-2006-0299, Petition of Socket Telecom, LLC for Compulsory Arbitration of Interconnection Agreements with CenturyTel of Missouri, LLC and Spectra Communications, LLC, pursuant to Section 251(b)(1) of the Telecommunications Act of 1996.
- Case No. TO-2006-0463, In the Matter of the Petition for Arbitration of Unresolved Issues in a Section 251(b)(5) Agreement with ALLTEL Wireless and Western Wireless.
- Case No. TO-2009-0037, In the Matter of the Petition of Charter Fiberlink-Missouri, LLC for Arbitration of an Interconnection Agreement Between CenturyTel of Missouri, LLC and Charter Fiberlink-Missouri, LLC.

Robin Kliethermes

Present Position:

I am the Rate and Tariff Examination Manager of the Tariff and Rate Design Department, Commission Staff Division, of the Missouri Public Service Commission ("Commission"). I have held this position since July 16th, 2016. I have been employed by the 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. I am also a member of the Electric Meter Variance Committee.

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.

Additionally, I completed two online classes through Bismarck State College: Energy Markets and Structures (ENRG 420) in December, 2014 and Energy Economics and Finance (ENRG 412) in May, 2015.

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 Company	Staff Report	Economic Considerations
ER-2012-0175	KCP&L Greater Missouri Operations Company	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	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
ER-2014-0258	Ameren Missouri	Surrebuttal	Residential Customer Charge and Class allocations
ER-2014-0351	Empire District Electric Company	Staff Report	Rate Revenue by Class, Class Cost of Service study, Residential Customer Charge

cont'd Previous Testimony of
Robin Kliethermes

Case No.	Company	Type of Filing	Issue
ER-2014-0351	Empire District Electric Company	Rebuttal & Surrebuttal	Residential Customer, Interruptible Customers
ER-2014-0370	Kansas City Power & Light Company	Staff Report	Rate Revenue by Class, Class Cost of Service study, Residential Customer Charge
ER-2014-0370	Kansas City Power & Light Company	Rebuttal & Surrebuttal	Class Cost of Service, Rate Design, Residential Customer Charge
ER-2014-0370	Kansas City Power & Light Company	True-Up Direct & True-Up Rebuttal	Customer Growth & Rate Switching
EE-2015-0177	Kansas City Power & Light Company	Staff Recommendation	Electric Meter Variance Request
EE-2016-0090	Ameren Missouri	Staff Recommendation	Tariff Variance Request
EO-2016-0100	KCP&L Greater Missouri Operations Company	Staff Recommendation	RESRAM Annual Rate Adjustment Filing
ET-2016-0185	Kansas City Power & Light Company	Staff Recommendation	Solar Rebate Tariff Change
ER-2016-0023	Empire District Electric Company	Staff Report	Rate Revenue by Class, CCOS and Residential Customer Charge
ER-2016-0023	Empire District Electric Company	Rebuttal & Surrebuttal	Residential Customer Charge and CCOS
ER-2016-0156	KCP&L Greater Missouri Operations	Staff Report	Rate Revenue by Class, CCOS and Residential Customer Charge
ER-2016-0156	KCP&L Greater Missouri Operations	Rebuttal & Surrebuttal	Data Availability, Energy Efficiency Revenue Adj., Residential Customer Charge
ER-2016-0179	Ameren Missouri	Rebuttal	Blocked Usage
ER-2016-0285	Kansas City Power & Light Company	Rebuttal & Surrebuttal	Clean Charge Network Tariff, Rate Design
GR-2017-0215	Spire (Laclede Gas Company)	Staff Report, Rebuttal & Surrebuttal	Tariff Issues, Rate Design and Class Cost of Service

cont'd Previous Testimony of
Robin Kliethermes

Case No.	Company	Type of Filing	Issue
GR-2017-0216	Spire (Missouri Gas Energy)	Staff Report, Rebuttal & Surrebuttal	Tariff Issues, Rate Design and Class Cost of Service
EC-2018-0103	Kansas City Power & Light	Staff Report	Customer Complaint
EO-2015-0055	Ameren Missouri	Rebuttal	Flex-Pay Program
GR-2018-0013	Liberty	Staff Report	Class Cost of Service and Rate Design Report
ER-2018-0145	Kansas City Power & Light	Staff Report & Rebuttal & Surrebuttal	Tariff Issues, Rate Design, Revenue, Class Cost of Service
ER-2018-0146	KCP&L Greater Missouri Operations	Staff Report & Rebuttal & Surrebuttal	Tariff Issues, Rate Design, Revenue, Class Cost of Service
EO-2018-0211	Ameren Missouri	Staff Rebuttal Report	MEEIA Margin Rates
GO-2019-0059	Spire Missouri West	Staff Recommendation & Rebuttal	Weather Normalization Adjustment Rider (WNAR)
GO-2019-0058	Spire Missouri East	Staff Recommendation & Rebuttal	Weather Normalization Adjustment Rider (WNAR)
ET-2018-0132	Ameren Missouri	Surrebuttal	Risk Sharing Mechanism

Sarah L.K. Lange

I received my J.D. from the University of Missouri, Columbia, in 2007, and am licensed to practice law in the State of Missouri. I received my B.S. in Historic Preservation from Southeast Missouri State University, and took courses in architecture at Drury University. Since beginning my employment with the MoPSC I have taken courses in economics through Columbia College and courses in energy transmission through Bismarck State College, and have attended various trainings and seminars.

I began my employment with the Commission in May 2006 as an intern in what was then known as the General Counsel's Office. I was hired as a Legal Counsel in September 2007, and was promoted to Associate Counsel in 2009, and Senior Counsel in 2011. During that time my duties 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.

In July 2013 I was hired as a Regulatory Economist III in what is now known as the Tariff and Rate Design Department. 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 regulatory adjustment mechanisms 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. I have also participated before the Commission under the name Sarah L. Kliethermes.

Testimony and Staff Memoranda

<u>Company</u>	<u>Case No.</u>
Union Electric Company d/b/a Ameren Missouri In the Matter of of Union Electric Company d/b/a Ameren Missouri's Tariffs to Increase Its Revenues for Natural Gas Service	GR-2019-0077

<u>Company</u>	<u>Case No.</u>
Union Electric Company d/b/a Ameren Missouri In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri Revised Tariff Sheets	ET-2019-0149
The Empire District Electric Company In the Matter of The Empire District Electric Company's Revised Economic Development Rider Tariff Sheets	ET-2019-0029
The Empire District Electric Company In the Matter of a Proceeding Under Section 393.137 (SB 564) to Adjust the Electric Rates of The Empire District Electric Company	ER-2018-0366
Union Electric Company d/b/a Ameren Missouri In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Permission and Approval and a Certificate of Public Convenience and Necessity Authorizing it to Construct a Wind Generation Facility	EA-2018-0202
Kansas City Power & Light Company KCP&L Greater Missouri Operations Company In the Matter of Kansas City Power & Light Company's Request for Authority to Implement a General Rate Increase for Electric Service	ER-2018-0145 ER-2018-0146
Union Electric Company d/b/a Ameren Missouri In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Approval of Efficient Electrification Program	ET-2018-0132
Union Electric Company d/b/a Ameren Missouri In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Approval of 2017 Green Tariff	ET-2018-0063
Laclede Gas Company Laclede Gas Company d/b/a Missouri Gas Energy In the Matter of Laclede Gas Company's Request to Increase Its Revenue for Gas Service, In the Matter of Laclede Gas Company d/b/a Missouri Gas Energy's Request to Increase Its Revenue for Gas Service.	GR-2017-0215 GR-2017-0216
Kansas City Power & Light Company In the Matter of Kansas City Power & Light Company's Demand Side Investment Rider Rate Adjustment And True-Up Required by 4 CSR 240-3.163(8)	ER-2017-0316
Kansas City Power & Light Company In the Matter of Kansas City Power & Light Company's Demand Side Investment Rider Rate Adjustment And True-Up Required by 4 CSR 240-3.163(8)	ER-2017-0167

<u>Company</u>	<u>Case No.</u>
KCP&L Great Missouri Operations Company In the Matter of KCP&L Greater Missouri Operations Company's Annual RESRAM Tariff Filing	ET-2017-0097
Grain Belt Express Clean Line, LLC 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	EA-2016-0358
Kansas City Power & Light Company In the Matter of Kansas City Power & Light Company's Demand Side Investment Rider Rate Adjustment And True-Up Required by 4 CSR 240-3.163(8)	ER-2016-0325
Kansas City Power & Light Company In the Matter of Kansas City Power & Light Company's Request for Authority to Implement A General Rate Increase for Electric Service	ER-2016-0285
Union Electric Company d/b/a Ameren Missouri In the Matter of Union Electric Company d/b/a Ameren Missouri for Permission and Approval and a Certificate of Public Convenience and Necessity Authorizing it to Offer a Pilot Subscriber Solar Program and File Associated Tariff	EA-2016-0207
Union Electric Company d/b/a Ameren Missouri In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariff to Increase Its Revenues for Electric Service	ER-2016-0179
KCP&L Great Missouri Operations Company In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement a General Rate Increase for Electric Service	ER-2016-0156
Empire District Electric Company In the Matter of The Empire District Electric Company's Request for Authority to Implement a General Rate Increase for Electric Service	ER-2016-0023
Ameren Transmission Company of Illinois In the Matter of the Application of Ameren Transmission Company of Illinois for Other Relief or, in the Alternative, a Certificate of Public Convenience and Necessity Authorizing it to Construct, Install, Own, Operate, Maintain and Otherwise Control and Manage a 345,000-volt Electric Transmission Line from Palmyra, Missouri to the Iowa Border and an Associated Substation Near Kirksville, Missouri	EA-2015-0146

<u>Company</u>	<u>Case No.</u>
<p>Ameren Transmission Company of Illinois In the Matter of the Application of Ameren Transmission Company of Illinois for Other Relief or, in the Alternative, a Certificate of Public Convenience and Necessity Authorizing it to Construct, Install, Own, Operate, Maintain and Otherwise Control and Manage a 345,000-volt Electric Transmission Line in Marion County, Missouri and an Associated Switching Station Near Palmyra, Missouri</p>	EA-2015-0145
<p>Union Electric Company d/b/a Ameren Missouri In the Matter of Union Electric Company d/b/a Ameren Missouri's 2nd Filing to Implement Regulatory Changes in Furtherance of Energy Efficiency as Allowed by MEEIA</p>	EO-2015-0055
<p>Kansas City Power & Light Company In the Matter of Kansas City Power & Light Company's Request for Authority to Implement a General Rate Increase for Electric Service</p>	ER-2014-0370
<p>Empire District Electric Company In the Matter of The Empire District Electric Company for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in the Company's Missouri Service Area</p>	ER-2014-0351
<p>Union Electric Company d/b/a Ameren Missouri City of O'Fallon, Missouri, and City of Ballwin, Missouri, Complainants v. Union Electric Company d/b/a Ameren Missouri, Respondent</p>	EC-2014-0316
<p>Union Electric Company d/b/a Ameren Missouri In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariff to Increase Its Revenues for Electric Service</p>	ER-2014-0258
<p>Union Electric Company d/b/a Ameren Missouri Noranda Aluminum, Inc., et al., Complainants, v. Union Electric Company d/b/a Ameren Missouri, Respondent</p>	EC-2014-0224
<p>Grain Belt Express Clean Line, LLC 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</p>	EA-2014-0207
<p>KCP&L Great Missouri Operations Company In the Matter of KCP&L Greater Missouri Operations Company's Application for Authority to Establish a Renewable Energy Standard Rate Adjustment Mechanism</p>	EO-2014-0151

<u>Company</u>	<u>Case No.</u>
Kansas City Power & Light Company In the Matter of Kansas City Power & Light Company's Filing for Approval of Demand-Side Programs and for Authority to Establish A Demand-Side Programs Investment Mechanism	EO-2014-0095
Veolia Energy Kansas City, Inc. In the Matter of Veolia Energy Kansas City, Inc. for Authority to File Tariffs to Increase Rates	HR-2014-0066

Presentations

Billing Determinants Lunch and Learn (March 27, 2019)

Support for Low Income and Income Eligible Customers, Cost-Reflective Tariff Training, in cooperation with U.S.A.I.D. and NARUC, Addis Ababa, Ethiopia (February 23 - 26, 2016)

Fundamentals of Ratemaking at the MoPSC (October 8, 2014)

Ratemaking Basics (Sept. 14, 2012)

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

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 Operations Company, and Transource Missouri EA-2013-0098
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

cont'd Expert Witness Testimony
Michael L. Stahlman

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	
Empire District Electric Company	ER-2014-0351
In the Matter of The Empire District Electric Company for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in the Company's Missouri Service Area	
Kansas City Power & Light Company	ER-2014-0370
In the Matter of Kansas City Power & Light Company's Request for Authority to Implement a General Rate Increase for Electric Service	
Kansas City Power & Light Company	EO-2014-0240
In the Matter of Kansas City Power & Light Company's Filing for Approval of Demand-Side Programs and for Authority to Establish a Demand-Side Programs Investment Mechanism	
KCP&L Great Missouri Operations Company	EO-2014-0241
In the Matter of KCP&L Greater Missouri Operations Company's Filing for Approval of Demand-Side Programs and for Authority to Establish a Demand-Side Programs Investment Mechanism	

cont'd Expert Witness Testimony
Michael L. Stahlman

- Ameren Transmission Company of Illinois EA-2015-0146
In the Matter of the Application of Ameren Transmission Company of Illinois for Other Relief or, in the Alternative, a Certificate of Public Convenience and Necessity Authorizing it to Construct, Install, Own, Operate, Maintain and Otherwise Control and Manage a 345,000-volt Electric Transmission Line from Palmyra, Missouri to the Iowa Border and an Associated Substation Near Kirksville, Missouri
- Empire District Electric Company ER-2016-0023
In the Matter of The Empire District Electric Company's Request for Authority to Implement a General Rate Increase for Electric Service
- KCP&L Great Missouri Operations Company ER-2016-0156
In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement a General Rate Increase for Electric Service
- Kansas City Power & Light Company ER-2016-0285
In the Matter of Kansas City Power & Light Company's Request for Authority to Implement A General Rate Increase for Electric Service
- Union Electric Company d/b/a Ameren Missouri ER-2016-0179
In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariff to Increase Its Revenues for Electric Service
- Grain Belt Express Clean Line, LLC EA-2016-0358
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 345kV transmission line.
- Spire Missouri, Inc. GR-2017-0215 and GR-2017-0216
In the Matter of Spire Missouri, Inc.'s Request to Increase Its Revenues for Gas Service
- Liberty Utilities GR-2018-0013
In the Matter of Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities' Tariff Revisions Designed to Implement a General Rate Increase for Natural Gas Service in the Missouri Service Areas of the Company
- Spire Missouri, Inc. GO-2019-0058 and GO-2019-0059
In the Matter of Spire Missouri, Inc. d/b/a Spire's Request to Decrease [Increase] WNAR
- Grain Belt Express Clean Line LLC EM-2019-0150
Invenergy Transmission LLC
Invenergy Investment Company LLC
In the Matter of the Joint Application of Invenergy Transmission LLC, Invenergy Investment Company LLC, Grain Belt Express Clean Line LLC and Grain Belt Express Holding LLC for an Order Approving the Acquisition by Invenergy Transmission LLC of Grain Belt Express Clean Line LLC