

Exhibit No.:
Issue(s): Natural Gas Fuel Hedging
Witness: Dana E. Eaves
Sponsoring Party: MoPSC Staff
Type of Exhibit: Rebuttal Testimony
Case No.: ER-2019-0374
Date Testimony Prepared: March 3, 2020

MISSOURI PUBLIC SERVICE COMMISSION
INDUSTRY ANALYSIS DIVISION
ENERGY RESOURCES DEPARTMENT

REBUTTAL OF SUPPLEMENTAL TESTIMONY
OF
DANA E. EAVES

THE EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. ER-2019-0374

Jefferson City, Missouri
March 2020

1 **REBUTTAL OF SUPPLEMENTAL TESTIMONY OF**

2 **DANA E. EAVES**

3 **THE EMPIRE DISTRICT ELECTRIC COMPANY**

4 **CASE NO. ER-2019-0374**

5 Q. Please state your name, employment position, and business address.

6 A. Dana E. Eaves, Utility Regulatory Auditor V with the Missouri Public Service
7 Commission (“Commission”), 200 Madison Street, Jefferson City, Missouri 65101.

8 Q. Have you previously filed testimony in this case?

9 A. No. However, I have attached my credentials and case participation as
10 Schedule DEE-r1 and Schedule DEE-r2 detailing my experience.

11 Q. What is the purpose of your rebuttal testimony?

12 A. I will respond to Commissioner Rupp’s Order Regarding Empire’s Hedging
13 Practices, issued January 28, 2020. In this order Commissioner Rupp requested the Commission
14 Staff, the Office of the Public Counsel, and Empire provide testimony comparing Empire’s
15 current and past hedging practices.

16 **EXECUTIVE SUMMARY**

17 Q. Please summarize your rebuttal testimony.

18 A. Staff will compare and contrast Empire’s past natural gas hedging practices with
19 Empire’s current natural gas hedging practices. Empire’s past natural gas hedging practices
20 predominantly relied on financial instruments, Henry Hub Natural Gas Futures Contracts
21 (“NG Futures”), to hedge natural gas price risk volatility. ** _____

22 _____ ** Staff’s
23 testimony in this case is only used to inform the Commission as to Staff’s understanding of the

1 changes that Empire is implementing to its risk management activities and is not a review of
2 the effectiveness or prudence of such changes.

3 **CHANGES TO EMPIRE'S NATURAL GAS HEDGING PRACTICES**

4 Q. Did Empire's past natural gas hedging practices rely heavily on NG
5 futures contracts?

6 A. Yes.

7 Q. What are NG futures contracts and how are they traded?

8 A. CME Globex is an electronic trading system providing a trading platform for an
9 array of futures and options. CME Group technology facilitates electronic trading, providing
10 users across the globe with virtually 24-hour access to global markets. CME Group describes
11 NG Futures as:

12 Henry Hub Natural Gas (NG) Futures allow market participants
13 significant hedging activity to manage risk in the highly volatile natural
14 gas price, which is driven by weather-related demand. They also provide
15 efficient transactions in and out of positions. Natural gas futures are:

- 16 • The third-largest physical commodity futures contract in the
17 world by volume
- 18 • Widely used as a national benchmark price for natural gas,
19 which continues to grow as a global and U.S. energy source
- 20 • An independent, stand-alone commodity

21 **Things to know about the contracts:**

- 22 • Natural gas futures prices are based on delivery at the Henry
23 Hub in Louisiana.
- 24 • Traded electronically on CME Globex and off-exchange for
25 clearing only as an EFS, EFP or block trade through CME ClearPort.
- 26 • Options types include American, calendar spread, European
27 and daily.¹

28 Q. What were some of the advantages for Empire using NG futures contracts to
29 mitigate its natural gas price risk?

¹ <https://www.cmegroup.com/trading/energy/natural-gas/natural-gas.html>.

1 A. A major advantage of NG futures contracts is that they provided price security
2 for a forecasted demand years in advance of Empire's generation needs. NG futures contracts
3 are traded publicly and provide easy liquidity in buying or selling. Since these contracts are
4 purely financial, no actual physical possession of the gas commodity is required, but the
5 contract still affords price protection against price swings in the market. Also, NG futures
6 contracts are traded in minimum quantities that allowed Empire to manage its variable
7 generation needs more precisely. Empire used this strategy to provide price security for its
8 natural gas commodity needs and did not use this strategy for purely financial gains. Empire
9 used a laddering strategy in acquiring NG futures contracts, purchasing a certain percentage of
10 expected period of burn for a future period to provide even more price volatility reduction with
11 the target of being price hedged for the forecasted burn month.

12 Q. What were some of the major influencers related to Empire's past natural gas
13 risk mitigation strategy that led to the change to the current hedging policy?

14 A. There were three major issues that effected Empire's performance over the past
15 ten (10) years. First, a major unforeseen change in natural gas supply, fracking, which has
16 driven natural gas prices to historic lows with prices forecasted to stay low for the next several
17 years; second, a decrease of Empire's generation load due to the economic downturn of 2008;
18 and third, the full market integration of Southwest Power Pool ("SPP") and its impact on how
19 Empire's generation resources are dispatched.

20 Empire's past hedging strategy performance was negatively impacted by this sustained
21 downward trend in natural gas prices which led to significant measured market losses, as
22 measured by the NG futures contract price to actual natural gas market spot price, over a period
23 of years, as Empire had forecasted volumes hedged with price certain NG futures contracts.

1 However, neither of these factors (future price and quantity) were known for certain at the time
2 of the placement of hedges.

3 Another important factor influencing Empire's past performance when measured
4 against actual results was the implementation of SPP's fully Integrated Market. SPP became
5 responsible for the dispatching of Empire's generation units, so units that had been forecasted
6 to run and for which Empire had secured NG futures contracts would possibly not be dispatched
7 by SPP and would lead to over-hedged positions of natural gas that would not be needed to
8 produce electricity.

9 Q. Are natural gas prices known to any high level of certainty?

10 A. No. Natural gas prices are still subjected to supply and demand market forces
11 and future regulatory controls based upon environmental concerns of fracking and emission
12 issues. All these factors and others not yet known could influence natural gas prices, which
13 could significantly increase natural gas prices.

14 Q. How does Empire's current natural gas practices protect from volatile natural
15 gas prices?

16 A. Empire's witness Aaron Doll, in his Supplemental Hedging Testimony, points
17 to several major changes Empire implemented in its natural gas hedging strategies that are
18 designed to replace Empire's past policy and practices. Most significantly, ** _____

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Rebuttal of Supplement Testimony of
Dana E. Eaves

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Q. Does Empire's current hedging plan guarantee that its customers will not still be impacted by natural gas price volatility?

A. No, it does not. Natural gas price risk will still exist but it is how Empire chooses to deal with the risk under its current policy that will impact customers. Empire's decision to ** _____ ** to manage its natural gas price risk takes away a significant amount of the price risk mitigation protection that was afforded by the use of NG futures contracts, especially when natural gas prices rise from the historical low prices the market is currently experiencing today.

Q. Does regulatory accounting require Empire to value the difference between ** _____ ** and a spot market price?

A. No, currently a ** _____ ** for any regulatory purpose. There are certain financial accounting requirements that value the difference between ** _____ **. Currently, under Empire's past hedging strategy, Empire does report these financial accounting differences to Staff in its FAC monthly reports (gains/loss on derivatives). Since there is not data available yet under the current hedging strategy, Staff cannot verify Empire's reporting practices with the financial accounting differences.

Q. Does this conclude your rebuttal of supplemental testimony?

A. Yes.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of The Empire District Electric)
Company's Request for Authority to File) Case No. ER-2019-0374
Tariffs Increasing Rates for Electric Service)
Provided to Customers in its Missouri)
Service Area)

AFFIDAVIT OF DANA E. EAVES

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW DANA E. EAVES and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Rebuttal Testimony*; and that the same is true and correct according to his best knowledge and belief.

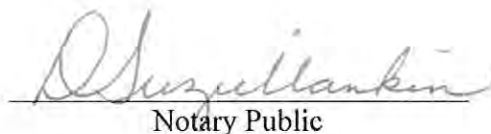
Further the Affiant sayeth not.


DANA E. EAVES

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 2nd day of March 2020.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires December 12, 2020
Commission Number: 12412070


Notary Public

CASE PROCEEDING PARTICIPATION

DANA E. EAVES

PARTICIPATION		TESTIMONY
COMPANY	CASE NO.	ISSUES
Empire District Electric Company	EO-2020-0059	FAC Prudence Review
Empire District Electric Company	ER-2019-0374	Rate Case- Self-Commit Status, Hedging
Ameren Missouri	ER-2019-0335	Rate Case – Self-Commit Status
Ameren Missouri	EO-2019-0257	FAC Prudence Review
KCPL	EO-2019-0068	FAC Prudence Review
GMO	EO-2019-0067	FAC Prudence Review
GMO	EO-2018-0364	MEEIA Prudence Review
KCPL	EO-2018-0363	MEEIA Prudence Review
GMO	EO-2018-0299	MEEIA Cycle 3 Application
KCPL	EO-2018-0298	MEEIA Cycle 3 Application
Empire District Electric Company	EO-2018-0244	MEEIA Prudence Review
KCPL	ER-2018-0145	Risk Management
KCP&L GMO	ER-2018-0146	Risk Management
Ameren Missouri	EO-2018-0155	MEEIA Prudence Review
Ameren Missouri	EO-2018-0067	FAC Prudence Review
KCP&L GMO	EO-2017-0232	Hedging
KCP&L	EO-2017-0231	Hedging
Osage Water Company Camden County Circuit Court	APCV102627CC	Legal Fees
Empire District Electric Company	EO-2017-0065	Risk Management/Hedging
Ameren Missouri	ER-2016-0179	Fuel Adjustment Clause
KCP&L GMO	ER-2016-0156	Fuel Adjustment Clause

cont'd Dana E. Eaves

PARTICIPATION		TESTIMONY
COMPANY	CASE NO.	ISSUES
KCP&L	EO-2016-0183	MEEIA Prudence Review
KCPL GMO	EO-2015-0180	MEEIA Prudence Review Program costs and TD-NSB Share, Software system costs, Contractors, Interest Costs
Ameren Missouri	EO-2015-0029	MEEIA Prudence Review Program costs and TD-NSB Share, Software system costs, Contractors, Interest Costs
Empire District Electric Company	EO-2014-0057	FAC Prudence Review Risk Management
AmerenUE	EO-2013-0407	FAC Prudence Review Risk Management
KCP&L Greater Missouri Operations (GMO)	EO-2013-0325	FAC Prudence Review Purchased Power Agreements & Costs, Hourly weighted Transfer Pricing, Off- system sales revenue
Empire District Electric Company	EO-2013-0114	FAC Prudence Review Financial Hedges, Off-system sales revenue
Ameren Missouri	EO-2012-0074	FAC Prudence Review Direct/Rebuttal Requirements Contracts
KCP&L Greater Missouri Operations (GMO)	EO-2011-0390	FAC Prudence Review Direct/Rebuttal Hedging Purchased Power
Empire District Electric Company	EO-2011-0285	FAC Prudence Review FAC Components
AmerenUE	EO-2010-0255	FAC Prudence Review Direct/Rebuttal Requirements Contracts
Empire District Electric Company	EO-2010-0084	FAC Prudence Review Fuel Cost, Off-System Sales, Interest Cost

PARTICIPATION		TESTIMONY
COMPANY	CASE NO.	ISSUES
Missouri American Water Company	WR-2008-0311	Surrebuttal; Pension and Other Post-Retirement Employee Benefits Costs, Annual Incentive Plan Pay-out Based Upon Meeting Financial Goals and Customer Satisfaction Survey, Labor and Labor-Related Expenses, Rate Case Expenses, Insurance Other than Group, and Waste Disposal Expense
Empire District Electric Company	ER-2008-0093	Fuel and Purchased Power, Fuel Inventories, FAS 87 (pension), FAS 106 (OPEBS), Expenses and Regulatory Assets, Off System Sales, Transmission Revenue, SO2 Allowances, Maintenance Expense
Laclede Gas Company	GR-2007-0208	Accounting Schedules Reconciliation
Aquila, Inc d/b/a Aquila Networks-MPS & L&P	ER-2007-0004	Payroll Expense, Payroll Taxes and Employee Benefits
Empire District Electric Company	ER-2006-0315	Direct - Jurisdictional Allocations Factors, Revenue, Uncollectible Expense, Pensions, Prepaid Pension Asset, Other Post-Employment Benefits Rebuttal - Updated: Pension Expense, Updated Prepaid Pension Asset, OPEB's Tracker, Minimum Pension Liability
Missouri Gas Energy (Gas)	GR-2004-0209	Direct – Cash Working Capital, Payroll, Payroll Taxes, Incentive Compensation, Bonuses, Materials and Supplies, Customer Deposits and Interest, Customer Advances and Employee Benefits Surrebuttal – Incentive Compensation
Aquila, Inc. d/b/a Aquila Networks-MPS & L&P (Natural Gas)	GR-2004-0072	Direct - Payroll Expense, Employee Benefits, Payroll Taxes Rebuttal – Payroll Expense, Incentive Compensation, Employer Health, Dental and Vision Expense

cont'd Dana E. Eaves

PARTICIPATION		TESTIMONY
COMPANY	CASE NO.	ISSUES
Aquila, Inc. d/b/a Aquila Networks-MPS (Electric)	ER-2004-0034	Direct - Payroll Expense, Employee Benefits, Payroll Taxes Rebuttal – Payroll Expense, Incentive Compensation, Employer Health, Dental and Vision Expense
Aquila, Inc. d/b/a Aquila Networks-L&P (Electric & Steam)	HR-2004-0024	Direct - Payroll Expense, Employee Benefits, Payroll Taxes
Osage Water Company	ST-2003-0562 WT-2003-0563	Direct - Plant Adjustment, Operating & Maintenance Expense Adjustments
Empire District Electric Company	ER-2002-0424	Direct - Cash Working Capital, Property Tax, Tree Trimming, Injuries and Damages, Outside Services, Misc. Adjustments
Citizens Electric Corporation	ER-2002-0297	Direct - Depreciation Expense, Accumulated Depreciation, Customer Deposits, Material & Supplies, Prepayments, Property Tax, Plant in Service, Customer Advances in Aid of Construction
UtiliCorp United Inc, d/b/a Missouri Public Service	ER-2001-672	Direct - Advertising, Customer Advances, Customer Deposits, Customer Deposit Interest Expense, Dues and Donations, Material and Supply, Prepayments, PSC Assessment, Rate Case Expense

PARTICIPATION –NON-Case (Informal) proceeding		
COMPANY	CASE or Tracking No.	ISSUES
RDG Sanitation	SA-2010-0096	Certificate Case
Mid Mo Sanitation	SR-2009-0153	Informal General Rate Case
Highway H Utilities, Inc.	SR-2009-0392 and WR-2009-0393	Informal General Rate Case Lead Auditor

PARTICIPATION –NON-Case (Informal) proceeding		
COMPANY	CASE or Tracking No.	ISSUES
Osage Water Company	SR-2009-0149 WR-2009-0152	General Rate Case Lead Auditor
Hickory Hills	SR-2009-0151 WR-2009-0154	General Rate Case Lead Auditor
Missouri Utilities	SR-2009-0153 WR-2009-0150	General Rate Case Lead Auditor
Roy L. Utilities	QS-2008-0001 and QW-2008-0002	General Informal Rate Case Lead Auditor
IH Utilities, Inc.	QW-2007-0003	General Rate Case Lead Auditor
W.P.C. Sewer Company	QS-2007-0005	Rate Case Lead Auditor
West 16 th Street Sewer Company, Inc.	QS-2007-0004	Rate Case Lead Auditor
Gladlo Water & Sewer Company, Inc.	QS-2007-0001 and QW-2007-0002	Rate Case Lead Auditor Supervised: Kofi Boateng
Taneycomo Highlands, Inc.	QS-2006-0004	Rate Case Lead Auditor
Empire District Electric	QW-2005-0013	Informal General Rate Case
Cass County Telephone Company	TO-2005-0237	Cash Flow Analysis, LEC Invoices, Bank Reconciliations, Expense Analysis
LTA Water Company	WM-2005-0058	Merger Case with Missouri American Main Issue: Plant Valuation Lead Auditor

PARTICIPATION –NON-Case (Informal) proceeding		
COMPANY	CASE or Tracking No.	ISSUES
Noel Water Company, Inc.	QW-2005-0002	Rate Case Lead Auditor Supervised: Kofi Boateng
Suburban Water and Sewer Company, Inc.	QW-2005-0001	Rate Case Lead Auditor Supervised: Kofi Boateng
Osage Water Company	WC-2003-0134	Customer Refund Review
Noel Water Company, Inc.	QW-2003-0022	Rate Case Lead Auditor Supervised: Trisha Miller
AquaSource	WR-2003-0001 and SR-2003-0002	Plant in Service, Construction Work in Progress, Payroll, Depreciation Expense
Warren County Water and Sewer Company	WC-2002-155	Pump Repair/replacement, Revenue, Salary
Environmental Utilities, LLC	WA-2002-65	Certificate Case
Meadows Water Company	WR-2001-966 and SR-2001-967	Expense Items

DANA EAVES
CAREER EXPERIENCE

Missouri Public Service Commission, Jefferson City, Missouri

Utility Regulatory Auditor V May 17, 2017 – Present
Utility Regulatory Auditor IV January 1, 2013 – May 17, 2017
Utility Regulatory Auditor III April 23, 2003– December 31, 2012
Utility Regulatory Auditor II April, 2002 – April, 2003
Utility Regulatory Auditor I April, 2001 – April, 2002

Perform rate audits and prepare miscellaneous filings as ordered by the Commission. Review all exhibits and testimony on assigned issues from the most recent previous case and the current case. Develop accounting adjustments and issue positions which are supported by workpapers and written testimony. Prepare Staff Recommendation Memorandum for filings that do not require prepared testimony. As a Utility Regulatory Auditor V, in the Energy Resource Analysis Department, I am the lead Auditor for Fuel Adjustment Clause Prudence Reviews and Missouri Energy Efficiency Investment Act Prudence Reviews and perform other tasks as assigned by management. I have testified under cross-examination as an expert witness for litigated rate cases.

Midwest Block and Brick, Jefferson City, Missouri

Accountant December 2000 – March 2001
CIS/Accounting Assistant July 2000 – December 2000

Practice Management Plus, Inc., Jefferson City, Missouri

Vice President Operations October 1998 – May 2000

Capital City Medical Associates (CCMA), Jefferson City, Missouri

Director of Finance March, 1995-October, 1998

ADDITIONAL EXPERIENCE

Wright Camera Shop/Sales 1987-1995
Movies To Go, Inc/Store Manager 1984-1987

cont'd Dana E. Eaves

Butler Shoe Corp./Store Manager	1982-1984
Southeastern Illinois College/Student	1979-1982
Kassabaum's Bicycle Shop/Store Manager	1977-1979

EDUCATION

Bachelor of Science, Business Administration; Emphasis Accounting (1995)

COLUMBIA COLLEGE, JEFFERSON CITY, MO