EXHIBIT

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Issue(s):	FAC
Witness/Type of Exhibit:	Riley/Rebuttal
Sponsoring Party:	Public Counsel
Case No.:	EO-2017-0065

REBUTTAL TESTIMONY

OF

JOHN S. RILEY

Submitted on Behalf of the Office of the Public Counsel

EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. EO-2017-0065

**** Denotes Highly Confidential Information ****

June 22, 2017

HC

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Sixth Prudence Review of Costs Subject to the Commission-Approved Fuel Adjustment Clause of The Empire District Electric Company	)))))	Case No. EO-2017-0065

AFFIDAVIT OF JOHN S. RILEY

STATE OF MISSOURI)
) **ss**
COUNTY OF COLE)

John S. Riley, of lawful age and being first duly sworn, deposes and states:

1. My name is John S. Riley. I am a Public Utility Accountant III for the Office of the Public Counsel.

2. Attached hereto and made a part hereof for all purposes is my rebuttal testimony.

3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.

John S. Riley, C.P.A.
Public Utility Accountant III

Subscribed and sworn to me this 22nd day of June 2017.

NOTARY PUBLIC NOTARY SEAL STATE OF MISSOURI

JERENE A. BUCKMAN
My Commission Expires
August 23, 2017
Cole County
Commission #13754037

Jerene A. Buckman
Notary Public

My Commission expires August 23, 2017.

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OF

JOHN S. RILEY

EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. EO-2017-0065

I. INTRODUCTION

Q. Please state your name and business address.

A. John S. Riley, PO Box 2230, Jefferson City, Missouri 65102.

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

A. I am employed by the Missouri Office of the Public Counsel ("OPC") as a Public Utility Accountant.

Q. Are you same John S. Riley that previously filed direct testimony in this case?

A. Yes.

II. PRUDENCE VS. A LACK OF IMPRUDENCE

Q. What is the purpose of your rebuttal testimony?

A. The purpose of my testimony is to respond to the direct testimony of the Empire District Electric Company ("Empire" or "Company") witness Aaron J. Doll and the surrebuttal testimony of Mr. Blake Mertens from ER-2016-0023 that Mr. Doll adopted concerning the prudence of the Company's hedging policy in the current natural gas market.

Q. Would you summarize Mr. Doll's direct testimony?

A. It is Mr. Doll's argument that since Empire has a written hedging policy that has been reviewed by Staff and presented to the Commission, the hedging policy is prudent. OPC witness Mr. Charles Hyneman explains in his rebuttal testimony why Staff has been unable to adequately review the Company's hedging policies. My concern with Empire's testimony is that Mr. Doll repeatedly mentions that the Commission and Staff have reviewed[1] Empire's hedging policy as if this would mean that the Commission has given its blessing to the prudency of the policy and the hedging transactions.

Q. Do you believe that the Commission has found Empire's hedging policy to be prudent in the past?

A. The issue has never been brought to the Commission's attention before. This case is the first time the prudency of Empire's hedging practices has come before the Commission.

Q. Mr. Doll claims that Staff has conducted five previous prudence reviews and found the Company to be prudent. Do you agree with this assessment?

A. No. The Staff does not find prudence but instead finds a lack of evidence of imprudence. All this really means is that the Staff has never raised the issue of hedging costs within its prudence reviews which is why the Commission has never had to decide on the prudence or imprudence of Empire's hedging practices.

Q. Mr. Doll explains in his testimony that the Company's hedging program is prudent with the following explanation:

> **As natural gas markets move through periods of high and low prices, results of hedging programs will also move through cyclic periods of gains and losses. Hedging results in a reduction in price volatility by keeping prices stable and predictable when evaluated over time. Hedging insulates both the customers and the utility from rapid price variances and allows for consistent budgeting and planning by both parties. Empire monitors the risks associated with natural gas**

[1] Doll direct testimony, schedule 1 pages 2,3

procurement and continuous to consider improvements to its hedging program on an ongoing basis.[2]

Do you agree with his assessment?

A. No. This statement starts with describing how hedging programs will have gains and losses. However, OPC's review of Empire's Gas Position Reports and other sources indicates that the Company suffered annual hedging losses since as far back as 2008.[3] Next, in this statement Mr. Doll praises the benefits of stable and predictable prices from hedging as allowing Empire to be consistent with its budgeting. However, consistent budgeting resulting from hedging that consistently increases costs to the customers only benefits the Company. Finally, this statement ends with the claim that Empire is always looking to improve its hedging program yet later in the testimony boasts of the consistency in the application of the policy since its inception 16 years ago. The natural gas market has had minimal volatility for years and the U.S. Energy Information Administration ("EIA") predicted more of the same for years to come. With no benefit to the ratepayer and no changes to the policy, Mr. Doll's statement conflicts with reality and his own testimony.

Q. Mr. Mertens' testimony adopted by Mr. Doll argues that OPC has misrepresented Empire's Risk Management Policy ("RMP"). Can you be more specific with your criticism with the RMP?

A. Yes. Mr. Mertens is trying to blame the messenger instead of proving the prudency of Empire's policy. On page 4 of his surrebuttal testimony, Mr. Mertens mentions some specific practices within the policy but these practices do not support the Company's argument that its policy is prudent.

[2] Doll direct testimony, page5 lines 23-24, page 6 lines 1-5
[3] Doll direct testimony, schedule 1, page 8 table 1

Q. What arguments are mentioned in Mr. Mertens' testimony?

A. Mr. Mertens argued:

> Empire uses a "progressive dollar cost averaging approach" for its hedging practice. This strategy provides the annual procurement boundaries with a focus on price volatility mitigation. However, within this strategy, Empire has attempted to take advantage of the lowest costs possible when procuring these hedges, by engaging in seasonal purchases when natural gas costs are historically lower. For example, the swaps Empire purchased in 2015 for delivery in years 2016-2019 were primarily (~96%) purchased in October and November which, according to Henry Hub Spot Price table supplied on Page 9 of Mr. Riley's rebuttal testimony, were two of the three lowest natural gas price months of the year."[4]

Q. Why does this strategy not help the Company's argument of prudence?

A. A casual read of the quote above may leave the impression that the Company is keeping costs down by buying in a low price month and averaging the costs, but this is not the case. The Company does not "progressive dollar cost average" in its approach to natural gas purchases. Dollar cost averaging is the systematic purchase of a set *dollar amount* of natural gas at set intervals, say monthly. For example, if Empire was hedging with a progressive dollar cost averaging policy, it would buy $500,000 MMBtu of gas every month regardless of the price per unit. This results in the Company hedging greater volumes as the price drops and hedging fewer volumes with rising prices. However, Empire does not have a set dollar amount to buy. Instead, it buys volume contracts that come due on dates that the Company has determined it will need natural gas for its generation units. Averaging the price is not the driving motivator in Empire's practice. An average price of Empire's purchases can be calculated but the Company practice amounts to bad hedging transactions on top of bad hedging transactions.

[4] Doll direct testimony, Schedule 1 page 4, lines 14-22

Q. Does Mr. Mertens mention other practices regarding the prudency of the Company hedging practices that you believe are misleading?

A. Yes. It is OPC contention that Empire hedges for budgetary certainty and predictability. Mr. Mertens argues that is not the case when he states:

> If Empire's strategy was solely to create "price predictability" as Mr. Riley alleges on Page 6 of his rebuttal testimony, our end of the year 2015 hedge percentages would not be hugging the minimum guidelines as denoted in our RMP. Empire has recognized that the market was trending downward and made a conscious effort to react to the market while still remaining within the RMP guidelines, thereby ensuring a price mitigation strategy with an additional focus on minimizing cost.[5]

Mr. Mertens statement alludes to a possibility that company personnel were making specific independent decision in the interest of the ratepayer, but the Company history does not support his contention that there was a conscious effort to do something different than follow the RMP to the letter. The Company has made a practice of "hugging" the percentage minimum guidelines by year end since at least 2011. Empire has no dual focus in this practice, which has always been to follow their outdated hedging model.

Q. Can you provide any specific hedging transactions that indicate the Company buys for volume?

A. Yes. Reviewing transactions from the year end 2011Gas Position Report, in October of 2010, the Company bought swaps for 400,000 dekatherms ("DTh") to come due in 2015. This was actually more than half a year earlier than required by its hedging policy. Empire's next purchase for 2015 was 300,000 DTh swaps in June of 2011, and its final purchase for 2015 that occurred during 2011was in October of 2011 where it contracted for 310,000 DTh.

[5] Doll direct testimony, Schedule 1 page 10, lines 15 - 20

Q. How does this indicate the Company buys for volume?

A. For Empire to be in compliance with its hedging procurement guidelines it would have to have 10% of 2015 expected natural gas needs under contract by the end of the 2011. In reviewing the purchase history on the Gas Position Reports, Empire typically buys in increments of 100,000 DTh. An extra 10,000 DTh added on to the last purchase in October 2011 must have been necessary to meet the requirements of Empire's policy.[6]

Q. Mr. Mertens stated in the quote mentioned above, "Empire has attempted to take advantage of the lowest costs possible when procuring these hedges, by engaging in seasonal purchases when natural gas costs are historically lower." Did the Company achieve that objective with these purchases?

A. No. Mr. Mertens confuses buying natural gas in October and November (low price months) with buying for October and November. As was pointed out in my direct testimony, gas prices fluctuate throughout the year. October and November are typically low price months due to low demand, whereas January, February, July and August are higher priced months because of seasonal demand. The Company may execute contracts during the months of October and November but it actually hedges very little for the months of October and November. The hedging transactions that Mr. Mertens spoke of and I referred to in the prior question were purchased in October but were scheduled to deliver in several different months in 2015, but none of the deliveries were scheduled for the low price months of October or November. Price is determined by delivery date not by contract creation date.

[6] The purchases outlined totaled 9.85% of the Company's expected 2015 needs, but was listed as 10% on the October Gas Position Report. The expected volume needs were later reduced so the total amount hedged exceeded the 10% minimum.

Q. Would you reiterate OPC's argument concerning Empire's hedging practices?

A. Empire's 16 year old hedging policy is imprudent in its definition and in its practice. The Company's "lock and leave" strategy has cost its ratepayer millions of dollars when Empire should have looked at the natural gas forecasts produced in 2012, 2013, and 2014 and concluded that its inflexible strategy would cause its natural gas costs to be needlessly inflated in the low price environment that was predicted at the time. The hedging policy dictates purchasing by volume needs and does not mention any consideration for checks or balances with market conditions. The Company witness claims that the policy has been re-evaluated but there is no evidence of that and there has certainly has been no change undertaken since the policy was initiated.

There is no upper risk tolerance level for the Company to measure and subsequently rein in its poor performance. Once Empire was allowed to pass hedging losses through the fuel adjustment clause to the ratepayers in 2008, Empire felt very little, if any, impact of its poor hedging policy. There was no need to change its policy from an investor's perspective. Empire was able to increase its budgeting accuracy with minimal impact to the Company. With hedging costs of 38% of the total cost of natural gas purchases, the Company hedging is ineffective and reckless. The ratepayer should not have to foot the bill for this imprudent policy. This is essentially a program on autopilot with no failsafe. This could be viewed similarly to putting your car on cruise-control and never making adjustments for traffic. It lacks any "skin in the game" on the part of the Company.

Q. The prudency standard insists that the Company's conduct be judged prospectively. What forecasts were available prior to the audit period that the Company could have used to help predict excess supply and, therefore, low nonvolatile prices during 2015 and 2016?

A. Empire was buying forward contracts and derivatives for the March 2015 through August 2016 timeframe during 2011, 2012, and 2013. The publically available EIA Short-Term

Energy Outlook from December 2011 published this summary of the natural gas market in 2011 and its expectations for 2012:

> Natural gas working inventories ended November 2011 at a record high for that date, about 1 percent above the same time last year. The projected Henry Hub natural gas spot price averages $4.02 per million British thermal units (MMBtu) in 2011, $0.37 per MMBtu lower than the 2010 average. EIA expects that Henry Hub spot prices will continue to decline in 2012, averaging $3.70 per MMBtu, $0.43 per MMBtu lower than in last month's *Outlook*.

The EIA points out that prices were lower in 2011 than in 2010 and were expected to continue to fall in 2012. In fact, the monthly spot price in December of 2011 was $3.17 and the average price in 2012 was $2.75.

Again, in November of 2013 the EIA rendered this projection:

> Natural gas working inventories ended October at an estimated 3.81 trillion cubic feet (Tcf), 0.12 Tcf below the level at the same time a year ago but 0.05 Tcf above the previous five-year average (2008-12). EIA expects that the Henry Hub natural gas spot price, which average $2.75 per million British thermal units (MMBtu) in 2012, will average $3.68 per MMBtu in 2013 and $3.84 per MMBtu in 2014.[7]

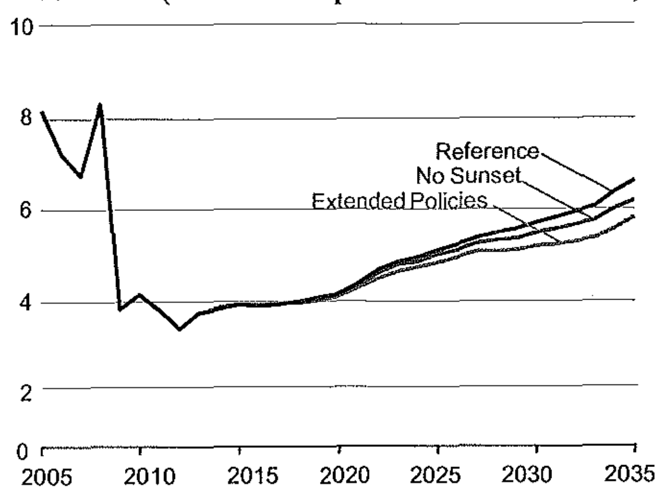
The predictions turned out to be conservative and prices were actually lower, but the point of the matter is that the EIA's analysis should have been heeded and Empire should have shown flexibility in its procurements. Empire was buying forward contracts and derivatives for the March 2015 through August 2016 prudence review period during 2011, 2012, and 2013. While the EIA Outlooks did not provide a projection for 2015 or 2016, it did point to a general trend of price declines prior to the review period.

[7] November 2013 eia Short-Term Energy Outlook (STEO), Page 1

Q. Was there information available through EIA during this time regarding its projections for natural gas prices for 2015 and 2016?

A. Yes. The EIA published its Annual Energy Outlook 2012 in June of 2012. The report provides projections of prices out to 2035. Below is a graph from that report projecting natural gas prices to stay at or below $4 MMBtu through 2020. [8]

Figure 16. Natural gas wellhead prices in three cases, 2005-2035 (2010 dollars per thousand cubic feet)



U.S. Energy Information Administration | Annual Energy Outlook 2012

Steady, low prices were predicted and Empire did not alter their hedging policy. If Empire had actually reviewed and revised its hedging policy as it testifies it intended to do, the Company would not have cost the ratepayer millions of dollars needlessly because it purchased a predetermined volume at high prices when the market price was falling and predicted to continue to fall. Even Mr. Mertens knew this to be a bad policy as he points out in his testimony, "that in a declining market such losses are to be expected"[9] The fact that Empire did not change its hedging policy when market prices were declining and when it knew that such a market would result in hedging losses, shows that Empire

[8] EIA Annual Energy Outlook 2012, page 23
[9] Doll direct testimony, Schedule 1 page 7 line 22 and 23

hedges for budgetary certainty and not to protect the ratepayer from price surges. The Company acknowledged that market prices were falling and the Company expected losses in their hedging program.

Q. You have placed a great deal of emphasis on EIA short and long range predictions for natural gas prices. Are you aware of any Company documentation that indicates they referenced and kept up-to-date on EIA natural gas forecasts?

A. Yes. Empire filed a "2012 Integrated Resource Plan Annual Update Report" in Docket No. EO-2012-0294. The report was compiled in March 2012. The report contains a section that highlights price changes in the Company estimates of natural gas prices going forward. Empire explains that the EIA revealed that record production and storage have caused prices to drop and the Company reduced its price estimates within its Integrated Resource Plan ("IRP"). Quoted below:

> <u>2.2</u> **<u>Market and Fuel Prices Update</u>**
>
> The most significant fuel price change since the September 2010 IRP filing is the recent drop in natural gas prices. Current market power prices are also lower than the IRP assumed due to its correlation with natural gas price. Over the past decade, the combination of horizontal drilling and hydraulic fracturing has allowed access to large volumes of shale gas that were previously uneconomical to produce. The production of natural gas from shale formations has rejuvenated the natural gas industry in the United States. It is believed that the boom in production in shale formations has opened up natural gas reserves that are large enough to supply the U.S. for decades. The added production has boosted natural gas supplies in storage facilities underground to levels that are about 40 percent higher than the five-year average, according to the Energy Department. According to the U.S. Energy Information Administration (EIA) Short-Term Energy Outlook (February 7, 2012), natural gas spot prices averaged $2.67 per MMBtu at the Henry Hub in January 2012, down $0.50 per MMBtu from the December 2011 average and the lowest average monthly price since 2002. Abundant storage levels, as well as ample supply, have contributed to the recent low prices. EIA

> expects the Henry Hub spot price will begin to recover after this winter's inventory draw season ends and will average $3.35 per MMBtu in 2012 and $4.07 per MMBtu in 2013. One of the factors contributing to recent downward movements in natural gas prices has been unusually warm weather throughout much of the United States during the winter of 2011- 2012, which has the effect of depressing natural gas demand for space heating. Natural gas working inventories continue to set new record seasonal highs and ended January 2012 at an estimated 2.86 trillion cubic feet (Tcf), about 24 percent above the same time last year

Q. Empire understood the dynamics of the market and the expected results yet still did not alter course from its "lock and leave" hedging strategy. Is that correct?

A. Yes. Neither its hedging policy nor its poor performances have been challenged and, up to this point, it has not had any risk of a hedging cost disallowance. The amount the Company pays is always passed on to the customer through the FAC, so the only concern for the Company is predicting the future budgetary costs. Why else would a company acquire 1 million DTh of natural gas under a futures contract in 2011 for a 2015 settlement date at ** $5.44 MMBtu **[10] when forecasts suggest that natural gas prices will not reach that level for well over 14 years? The prices the Company paid cannot be justified when compared to what a reasonable person should have known at the time.

Q. Mr. Doll explains in testimony that Empire has become a dual peaking utility and this "increases the necessity to hedge natural gas in winter months." Does a dual peak make Empire's hedging policies and practices less imprudent?

A. No. Empire Electric relies heavily on natural gas in its generation mix. Nearly half of its production comes from natural gas generation. Given that fact, Empire should be even more diligent in minimizing natural gas costs because its customers face a potential higher degree of loss than other electric utility customers due to the higher percentage of

[10] See my direct testimony, Schedule JSR-D-3.

fuel costs exposed to natural gas. As was pointed out in my direct testimony, hedging losses amounted to over 38% of the cost of Empire's natural gas and Empire lost money in every month that it hedged in the review period. Whether the Company hedges in the summer or the winter or both, it is not responsive to the market conditions and has caused their ratepayers to absorb millions of dollars in hedging losses.

Q. How are other electric utilities in Missouri responding to this low price, low volatility natural gas market?

A. Kansas City Power & Light Company ("KCPL") and KCP&L Greater Missouri Operations Company ("GMO") have both agreed to suspend their hedging programs until there is a need in the marketplace to hedge again. Ameren Missouri had only 21% of its expected 2017 natural gas needs hedged at the end of 2016[11] as opposed to Empire's programmatic hedging of 60% at year end.

Q. What is OPC's recommendation for the Commission in this case regarding Empire's hedging policy and the resulting losses during the time period of this prudence review?

A. The Commission should find that Empire's hedging policy and transactions during the 18 month prudence review were imprudent and order the Company to return both the financial and physical hedging losses it incurred to its ratepayer totaling $13,104,811.18 plus interest.

Q. Does this conclude your rebuttal testimony?

A. Yes it does.

[11] Ameren Corporations 2016 10K SEC Filing