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Docket No. 19-EPDE-216-ACA
Date Testimony Prepared: January 2019

Before the Kansas Corporation Commission

Direct Testimony

of

Aaron J. Doll

**In Support of the
Annual Energy Cost Adjustment ACA Filing**

January 2019



****Denotes Confidential****

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OF
AARON J. DOLL
THE EMPIRE DISTRICT ELECTRIC COMPANY
BEFORE THE
KANSAS CORPORATION COMMISSION
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**DIRECT TESTIMONY
OF
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THE EMPIRE DISTRICT ELECTRIC COMPANY
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1 **INTRODUCTION**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS?**

3 A. My name is Aaron J Doll. My business address is 602 South Joplin Avenue, Joplin,
4 Missouri 64801.

5 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

6 A. I am employed by Liberty Utilities Service Corp. as the Director of Electrical
7 Procurement for Liberty Utilities Central Region, which includes The Empire District
8 Electric Company (“Empire” or “Company”).

9 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL**
10 **BACKGROUND.**

11 A. I graduated from Missouri State University in 2003 with a Bachelor of Science degree in
12 psychology and minor in philosophy. I received my Master of Business Administration
13 from Missouri State University in 2008. I have worked for Empire for approximately 12
14 years.

15 **Q. WHAT ARE YOUR RESPONSIBILITIES?**

16 A. I oversee the Company’s participation in the Southwest Power Pool (“SPP”) including
17 the Integrated Marketplace (“IM” or “Market”). Additionally, I oversee the procurement
18 of fuel for the purposes of electrical generation.

1 **Q. HAVE YOU PREVIOUSLY PRESENTED TESTIMONY BEFORE THE KANSAS**
2 **CORPORATION COMISSION (“COMMISSION”)?**

3 A. No. However, I have presented testimony on behalf of Empire in various cases in
4 Missouri, Arkansas, and Oklahoma.

5 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS CASE?**

6 A. My testimony will support Empire’s request to the Kansas Corporation Commission
7 (“Commission”) for an order approving the Annual Cost Adjustment (“ACA”) factor
8 submitted to the Commission as part of Empire’s approved Energy Cost Adjustment
9 (“ECA”) tariff. In addition, my testimony supports and describes the costs and revenues
10 that flow through the ECA.

11 **Q. PLEASE DESCRIBE HOW THE SPP IM IMPACTS EMPIRE’S OPERATIONS.**

12 A. Since March 1, 2014 Empire submits its generation into the SPP market on a daily basis
13 and the SPP market determines the most economical and reliable solution for providing
14 energy to customers. When the SPP IM went live it created one consolidated balancing
15 authority in SPP. Prior to the SPP IM, there were several balancing authorities within
16 SPP. In the past Empire functioned as a balancing authority and dispatched its generators
17 to serve its native load, while buying and selling energy when it was economical to
18 do so, mostly through bilateral contracts. Since the SPP IM began, Empire purchases
19 energy from the market to serve native load, sells generation into the market, and receives
20 revenue from selling its generation into the market.

21 **Q. PLEASE GENERALLY DESCRIBE EMPIRE’S ELECTRIC SYSTEM**
22 **OPERATING CHARACTERISTICS.**

1 A. Empire generally has dual (winter/summer) system peaks almost equal to each other.
 2 Empire’s all-time system peak was recorded in January 2018 at 1,211 megawatts
 3 (“MW”). This was also the system peak demand during the ACA period as shown in the
 4 table below. In the past ten calendar years (2009 through 2018) Empire has logged its
 5 annual peak during the winter season five times and the summer season five times. The
 6 following table displays the actual Empire peak demands by month for the twelve-months
 7 ending October 2018 along with the Native Load in megawatt-hours (“MWh”) for each
 8 month.

Month	Peak-Mw	Percent of Annual Peak	Native Load-MWh
Nov-17	746	62%	391,990
Dec-17	980	81%	487,477
Jan-18	1,211	100%	563,079
Feb-18	1036	86%	448,682
Mar-18	837	69%	411,694
Apr-18	801	66%	389,302
May-18	931	77%	439,794
Jun-18	1,108	91%	512,383
Jul-18	1,106	91%	534,838
Aug-18	1,043	86%	503,509
Sep-18	1018	84%	441,171
Oct-18	858	71%	401,877
Total			5,525,796

9 This winter/summer peak relationship also affects fuel procurement and power plant
 10 operation because Empire must be able to offer in enough resources into the SPP IM in
 11 order to cover its load.

1 **Q. PLEASE DESCRIBE THE MAKEUP OF EMPIRE’S SUPPLY-SIDE**
2 **RESOURCES.**

3 A With the advent of the SPP IM, Empire purchases energy from the market to serve native
4 load, sells generation into the market, and receives revenue from selling its generation
5 into the market. Empire’s supply-side resources for the ACA true-up period ending
6 October 2018 are illustrated in the table below.

Unit/Purchase	Rated Capacity	Actual Generation Mwh	Energy Cost TME October 2018 (\$000) (A)	Average Cost/MWh (\$)	Fuel Type
Asbury	198	935,593	22,774.06	24.34	Coal
Iatan 1-2	191	946,103	15,067.41	15.93	Coal
Plum Point (own)	50	340,827	6,680.62	19.60	Coal
Riverton 10-12	278	1,298,841	24,079.96	18.54	Natural Gas
Energy Center 1-4	262	170,710	8,571.34	50.21	Natural Gas
State Line	389	1,573,716	29,535.13	18.77	Natural Gas
Ozark Beach	16	54,253	-	N/A	Hydro
Plum Point PPA	50	349,397	9,154.12	26.20	Coal
Wind Farms	25	757,112	27,744.90	36.65	Wind
Total	1,459	6,426,552	143,607.52	22.35	

*Rated Capacity based on summer ratings submitted to SPP in the 2018 Resource Adequacy Workbook

**Wind Farms Rated Capacity based on month of August

(A) This is the cost of Empire’s resource generation for November 2017 through October 2018 and excludes: the cost of fixed gas transportation, WR auxiliary charges, purchased power agreement (“PPA”) demand charges, environmental costs, the cost of consumables, SPP IM costs and revenues and generation plant O&M (except the PPA’s)

1 **Q. PLEASE DESCRIBE THE RATE STRUCTURES EMPIRE OPERATES UNDER**
2 **IN ARKANSAS, OKLAHOMA AND MISSOURI.**

3 A. All three states use historical test years to establish base electric rates in a manner similar
4 to the process used in Kansas. In addition, Arkansas, Oklahoma and Missouri use
5 adjustment mechanisms to pass on changes in fuel and energy costs to retail customers.

6 **Q. WHAT IS THE RELATIONSHIP OF THE SALES LEVELS WITHIN EACH OF**
7 **THE JURISDICTIONS?**

8 A. Missouri is by far the largest jurisdiction with over 83 percent of total sales made by
9 Empire during the twelve months ended October 31, 2018. The following table displays
10 the actual sales levels in each of the jurisdictions.

Jurisdiction	MWh Sales	Ratio
Wholesale	343,090	7%
Kansas	234,762	5%
Arkansas	173,166	3%
Oklahoma	156,770	3%
Missouri	4,282,136	83%
Total	5,189,924	100%

11 *Based on TME October 2018 calendar sales

12 **FUEL AND PURCHASED POWER PROCUREMENT PRACTICE SUMMARY**

13 **Q. HOW DOES EMPIRE ACQUIRE THE FUEL AND PURCHASED POWER USED**
14 **TO SUPPLY ELECTRICITY TO ITS CUSTOMERS?**

15 A. Empire's fuel and purchased power acquisition planning is performed using a three-step
16 process. The steps in this process are:

- 1 • Long-term Integrated Resource Plan (“IRP”)
- 2 • An annual and five-year business plan
- 3 • Updates to the annual and five-year business plans as conditions change

4 **Q. PLEASE DESCRIBE THE IRP PROCESS.**

5 A. Empire utilizes the IRP process to develop a long-term strategy to reliably serve its
6 customers at the lowest reasonable cost while considering other factors such as risk,
7 resource diversity, energy policy, legal mandates and rate impacts. This planning process
8 uses Empire’s entire load in all five of its jurisdictions. This formal IRP process has been
9 in place since the early 1990’s when Missouri implemented a formal IRP rule. Since that
10 time Oklahoma and Arkansas have implemented IRP rules. Empire filed its most recent
11 triennial IRP in Missouri on April 1, 2016. In accordance with the IRP filing schedule
12 established in Oklahoma and Arkansas, Empire submitted the 2016 IRP in Arkansas in
13 March 2017 and in Oklahoma in May 2017. Empire plans its resources on a system-wide
14 basis. The IRP process Empire uses results in a target list of future resources designed to
15 serve Empire’s projected usage and customer levels in all jurisdictions. The resource
16 plan selected by Empire as a result of this process includes a diverse set of resources. The
17 fundamental objective of the IRP process requires the utility to consider demand-side,
18 supply-side and renewable resources on an equivalent basis and utilize the minimization
19 of long-run utility costs as a primary criterion while also considering other factors such as
20 risk, legal mandates, energy policy and rate impacts. Empire is currently working on the
21 2019 triennial IRP that is planned to be filed in Missouri in April of this year and
22 submitted to Arkansas and Oklahoma in 2020.

1 **Q. PLEASE DESCRIBE ANY RECENT CAPACITY ADDITIONS TO EMPIRE’S**
2 **GENERATING FLEET.**

3 A. The most recent addition would be the Riverton 12 Combined Cycle, which began
4 commercial operation on May 1, 2016.

5 **Q. DOES EMPIRE HAVE PLANS FOR ANY CAPACITY ADDITIONS AND/OR**
6 **RETIREMENTS IN THE NEAR FUTURE?**

7 A. Yes. Empire has entered into three Purchase and Sale Agreements for the acquisition of
8 600 MW of wind generation. This acquisition arises out of Empire’s Customer Savings
9 Plan docket which resulted in an order from the Missouri Public Service Commission to
10 proceed with the acquisition of 600 MW of wind. As a result of the Missouri Order,
11 Empire updated its preferred plan under its 2016 IRP to reflect the addition of 600 MW
12 of wind. A copy of Empire’s Notice of Change in Preferred Plan was provided to the
13 KCC Staff last year. As described above, the Company will be submitting its 2019
14 Triennial IRP in April which will address its analysis of any other future capital additions
15 and any known retirements.

16 **Q. HOW DOES THE SECOND STEP OF THE PLANNING PROCESS WORK?**

17 A. In addition to the long range planning, Empire conducts annual financial and operational
18 planning, which is used to develop a five-year business forecast. This planning process
19 includes detailed load forecast, detailed generation unit modeling, detailed O&M and
20 capital budget planning, and revenue forecast. This plan is used to assess many things
21 including the ability to raise capital, debt and equity, and the near term impact on the
22 overall cost of service. The detailed generation unit modeling developed in this phase of

1 the planning process is used as the primary source of information for the development of
2 the fuel and purchased power procurement plan.

3 **Q. ARE THE ANNUAL AND FIVE-YEAR BUSINESS PLANS ADJUSTED TO**
4 **REFLECT CHANGES IN THE BUSINESS ENVIRONMENT?**

5 A. Yes. The annual and five-year business plans are periodically refined to take into
6 account changes since the plans were initially developed. Empire considers changes in
7 such things as weather, number of customers, fuel prices, purchased power prices, plant
8 outages, rail transportation delays, and coal availability. As these refinements are made
9 to the near term forecasts, Empire adjusts its fuel procurement plans as necessary.

10 **EXISTING SUPPLY-SIDE RESOURCES**

11 **Q. PLEASE DESCRIBE EMPIRE'S SUPPLY-SIDE RESOURCES IN GREATER**
12 **DETAIL.**

13 **BASE LOAD FACILITIES**

14 A. During the ACA period Empire owned coal-fired generation resources at three locations:
15 (1) the Asbury generating station located near Asbury, Missouri; (2) the jointly-owned
16 Iatan generating station located near Weston, Missouri (12 percent share) and (3) the
17 jointly-owned Plum Point generating station located near Osceola, Arkansas (7.52
18 percent share).

19 Empire's Asbury unit is a 198 MW primarily coal-fired plant which became
20 operational in 1970. A second small 14 MW unit was added in 1986, but it was retired
21 from service as planned at the end of 2013, during the recent environmental retrofit
22 project. During this environmental retrofit, Empire installed a scrubber, fabric filter, and
23 powder activated carbon injection system at the Asbury plant (collectively referred to as

1 the Asbury air-quality control system or AQCS). The Asbury AQCS entered service on
2 December 15, 2014. Additionally, during Asbury's fall 2014 outage, during which the
3 tie-in of the new AQCS was performed, the Asbury Unit turbine's inner cylinders and
4 rotors were replaced. These components utilize a newer design, increasing efficiency and
5 capacity. A Selective Catalytic Reduction (SCR) system went into service on this unit in
6 early 2008. Originally, Asbury was designed as a mine-mouth plant that burned a high
7 Btu coal from a mine located near the unit. In 1990, in response to the Clean Air Act of
8 1990, Asbury began burning a blend of approximately 90 to 95 percent lower Btu
9 western coal from Wyoming and 5 to 10 percent of a higher Btu bituminous coal. The
10 coal for the Asbury coal unit is purchased under a mixture of coal contracts of varying
11 terms and conditions. In the last few years Empire has been burning Tire Derived Fuel
12 ("TDF") at Asbury to take advantage of a NOx exemption for units burning TDF in
13 Missouri.

14 Iatan 1 is a large 708 MW coal unit operated by Kansas City Power & Light
15 ("KCPL"). Empire owns 12 percent or 85 MW of this unit. On a variable cost basis, this
16 unit is one of Empire's lowest cost fossil fueled energy resources along with Iatan 2 and
17 Plum Point the newest coal units added to Empire's portfolio. The Iatan 1 unit is a base
18 load resource, and Empire does not have the primary responsibility for fuel procurement
19 for this generating unit. Iatan 2, which KCPL declared to be in commercial service at the
20 end of December 2010, is a large coal unit. Empire owns 12 percent or around 106 MW
21 of this unit. Like Iatan 1, Empire is not directly responsible for fuel procurement for this
22 unit.

1 Plum Point is a large approximately 665 MW base load coal unit located in
2 Northeastern Arkansas. Empire owns 7.52 percent or around 50 MW of Plum Point. In
3 addition, Empire has entered into a long-term purchased power contract for 50 MW from
4 this unit. This unit went into commercial operation in August 2010. Empire is not
5 directly responsible for the coal procurement at Plum Point.

6 **INTERMEDIATE AND PEAKING RESOURCES**

7 Empire owns natural gas-fired resources at three locations: (1) the Riverton generating
8 station located in Riverton, Kansas; (2) the Energy Center facility located near La
9 Russell, Missouri; and (3) the State Line generating plant facility located in Jasper
10 County, Missouri near the Kansas state line.

11 During the ACA period, there were two gas turbines and a combined cycle unit at
12 Riverton with a total summer capacity of about 278 MW. The Riverton 12 Combined
13 Cycle unit is a summer-rated 250 MW 1x1 (one by one) unit consisting of one gas turbine
14 and one steam turbine. The other two gas units at the Riverton plant are small units,
15 approximately 14 MW each, and typically only run during extreme peak conditions.

16 Empire has four gas-fired turbines at the Energy Center generation facility. Two of
17 these units have capacity ratings in excess of 80 MW each, and are approximately 13,000
18 Btu/Kwh machines that were completed in 1978 and 1981. They also tend to operate
19 only during the summer on-peak hours, but due to their ability to burn fuel oil as a back-
20 up fuel, they can also operate during extreme winter conditions for economic or gas
21 transportation curtailment reasons. Empire also has two 49 MW FT8 twin pack aero-
22 derivative units at the Energy Center. The FT8 units have full load heat rates of around
23 10,500 Btu/Kwh. The FT8 units also have ability to start quickly and are typically on

1 line at full load in less than 10 minutes. These units are often used for peaking purposes
2 and they are also committed for reliability purposes as determined by SPP.

3 The State Line facility consists of State Line unit 1 and the jointly-owned State Line
4 combined cycle. State Line 1 is a 94 MW 1995 vintage combustion turbine with a full
5 load heat rate of approximately 12,000 to 13,000 Btu/Kwh. Empire operates the 495
6 MW State Line combined cycle unit which is jointly owned with Westar Generation Inc.
7 Empire has a 60 percent ownership share in the combined cycle unit, or about 295 MW,
8 while Westar's ownership share is 40 percent. It is a 2X1 (two by one) unit consisting of
9 two gas turbines and one steam turbine. The unit has the ability to operate in 1X1 mode
10 (one gas turbine and the steam turbine) or 2X1 mode (two gas turbines and the steam
11 turbine).

12 **OTHER RESOURCES**

13 Empire also owns and operates the Ozark Beach hydro facility located near Forsyth,
14 Missouri. It has a capacity of about 16 MW and has averaged about 48,212 MWh's of
15 annual output over the past five calendar years 2014-2018. The output of this unit is
16 limited by the water released upstream from Table Rock Lake by the Corp of Engineers
17 and the level of water maintained by the Corp of Engineers on Bull Shoals Lake, which is
18 downstream from the Ozark Beach facility.

19 At the end of 2005, Empire began receiving output from the 150 MW Elk River Wind
20 Project located in Butler County, Kansas via a purchased power agreement ("PPA").
21 Empire has a contractual commitment to purchase 100 percent of the output from this
22 project for 20 years. Near the end of 2008, Empire began receiving output from 105
23 MWs of the Meridian Way Wind Project located in Cloud County, Kansas. This is also a

1 20-year PPA. The energy from both of these wind farms are purchased at a fixed annual
2 cost per MWh established by contract.

3 **SPOT ENERGY PURCHASES**

4 As mentioned earlier, the SPP IM began on March 1, 2014. Prior to the advent of the
5 SPP IM, Empire participated in the Energy Imbalance Service (“EIS”) market to identify
6 energy purchase and sale opportunities to lower energy costs. An Empire energy trader
7 would contact potential counterparties, compare opportunities and develop alternatives.
8 When determining spot market purchase or sale opportunities, Empire energy traders
9 accounted for generation and transmission constraints. Since Empire is a member of the
10 SPP and is a network transmission service customer of SPP, this enabled opportunities
11 for network purchases and sales.

12 The start of the SPP IM ended the EIS market. Bilateral deals may still be made with
13 counterparties and imports and exports with counterparties outside of SPP may still take
14 place, but the SPP IM has fundamentally changed the amount of traditional non-contract
15 purchases Empire formerly referred to as “spot energy purchases.” With the SPP IM in
16 place, native load energy is purchased from the SPP market. Empire energy traders now
17 submit hourly demand bids and generation offers to SPP on a day-ahead basis, analyze
18 opportunities for the most efficient procurement of energy for load, monitor the Real time
19 balancing market, hedge transmission congestion on a market based approach (via the
20 Transmission Congestion Rights or TCR market) and make operating reserve offers to
21 the market.

22 **Q. HOW ARE THE NEAR TERM, ONE AND FIVE-YEAR FUEL REQUIREMENTS**
23 **DETERMINED?**

1 A. Empire utilizes a production cost model to develop a least cost hourly dispatch to serve
2 its customers. Empire utilizes this model under a perpetual license agreement it has with
3 the model's owner. The production cost model takes into account coal prices, natural gas
4 prices, market power prices, generating plant efficiencies, generating plant outages and
5 many of the other characteristics of the Empire's generation resources and develops a
6 least cost dispatch using price curves to simulate the SPP IM. The model output includes
7 the projected MWh generation from each generating resource, projected fuel usage,
8 revenues from sales into the SPP IM, and the cost to purchase Empire's native load
9 requirements. Monthly reports are generated from this output and are used to develop
10 plans for the acquisition of the fuel required to operate the generating units.

11 **COAL AND FREIGHT**

12 **Q. WHAT APPROACH DOES EMPIRE USE TO PURCHASE ITS COAL**
13 **REQUIREMENTS?**

14 A. Empire conducted a competitive coal acquisition process and selected several suppliers to
15 meet the majority of its western coal requirements for Asbury. Empire's western coal is
16 delivered under transportation contracts with Burlington Northern and Kansas City
17 Southern. Empire also has a train lease to supplement deliveries and additional lease
18 trains can be obtained as needed. Empire also has a train lease to supply its portion of the
19 Plum Point railcars. All of the western coal used at the Asbury site is delivered to
20 Empire's Asbury facility. Empire procures a majority of its bituminous coal (higher Btu)
21 requirements on a competitive basis.

22

23

1 **NATURAL GAS AND RELATED TRANSPORTATION**

2 **Q. PLEASE DESCRIBE HOW EMPIRE ACQUIRES ITS NATURAL GAS**
3 **REQUIREMENTS.**

4 A. All of Empire's natural gas-fired generation resources are located on the Southern Star
5 Central Gas Pipeline ("SSCGP"). Empire currently has approximately 75,000
6 MMBtu/day firm production zone capacity and more than 85,000 MMBtu/day firm
7 market zone capacity. If natural gas transportation is not available, most of Empire's
8 simple cycle gas turbines have the ability to operate on fuel oil. Empire acquires physical
9 natural gas on a long-term, monthly, and daily basis. Typically these physical purchases
10 are competitively bid when possible. If a particular long term physical gas request is very
11 limited in terms of responding suppliers, the price quoted by the supplier may be
12 compared to the prices available on the NYMEX as adjusted for delivery on SSCGP to
13 ensure that the price quoted by the physical supplier is competitive.

14 **MANAGING PRICE VOLATILITY OF NATURAL GAS**

15 **Q. HOW HAS EMPIRE'S MANAGEMENT CHOSEN TO MANAGE NATURAL**
16 **GAS PRICE VOLATILITY?**

17 A. Empire works diligently to mitigate the price volatility associated with changes in natural
18 gas pricing. Empire developed and implemented a Risk Management Policy (RMP)
19 during 2001 to manage this volatility. The RMP outlines the instruments available for
20 use to help manage volatility. In general terms, Empire's RMP allows the use of
21 NYMEX Futures, Swaps, and Physical purchases to help manage price volatility. The
22 RMP includes a minimum annual quantity of natural gas whose price must be established
23 in advance through either a financial instrument and/or physical gas contract.

1 **Q IS THERE ANY UPDATES TO THE MINIMUM HEDGING REQUIREMENTS**
2 **AT THIS TIME?**

3 A. Yes. As of September 19, 2018, Empire's Risk Management Oversight Committee
4 (RMOC) voted to suspend the hedging requirements until it had completed discussions
5 with stakeholders in Empire's four retail jurisdictions regarding changes to Empire's
6 current natural gas hedging practices. Empire has met with all four retail jurisdictions
7 and is currently developing changes to the natural gas hedging parameters and plans to
8 continue discussions with the jurisdictional stakeholders throughout the development of
9 potential changes to its hedging policy.

10 **2017 PROCUREMENT PLAN FOR 2018**

11 **Q. PLEASE DESCRIBE THE STATUS OF THE NATURAL GAS PROCUREMENT**
12 **PROCESS AT THE BEGINNING OF THE 2018 ACA PERIOD.**

13 A. Empire's RMP called for a minimum of 60% of its expected 2018 natural gas usage to be
14 established by December 31, 2017. As of December 31, 2017, Empire had
15 **** _____**** MMBtu of its 2018 calendar year natural gas requirements either
16 physically purchased at a fixed price or financially hedged out of a total expected natural
17 gas requirement for native load customers of **** _____**** MMBtu. The
18 **** _____**** MMBtu represented about 59% of Empire's anticipated 2018 natural gas
19 requirement, and carried an average cost of \$**** ____****/MMBtu. Of the **** _____****
20 MMBtu, a total of **** _____**** MMBtu was purchased under physical contracts and
21 **** _____**** MMBtu was hedged using financial instruments. The financial
22 instruments used were a combination of NYMEX contracts and associated basis swaps or

1 swap transactions with Over the Counter (“OTC”) counterparties. After burning the
2 natural gas it has physically purchased, Empire will buy its additional physical gas
3 requirements on an intra-month, daily or weekly basis on a competitive basis to balance
4 the system natural gas requirements.

5 **Q. ARE THE BENEFITS AND COSTS OF EMPIRE’S ENERGY RISK**
6 **MANAGEMENT POLICY RECORDED ON THE GENERAL LEDGER?**

7 A. Yes. The results of Empire’s risk management policies, including the settlement of
8 financial hedges, are reflected in the fuel expense accounts on the general ledger, namely
9 accounts 501 and 547 in accordance with Generally Accepted Accounting Principles
10 (“GAAP”). The gains/losses arising from the periodic settlement of the financial
11 instruments have been eliminated from the Kansas ECA filing as have the gains/losses
12 that arose from the periodic sale of financial instruments related to excess natural gas
13 during the ACA period. This is in accordance with an agreement reached with the Staff
14 and approved by the Commission in Docket No. 07-EPDE-712-ACA ("712 Docket").

15 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

16 A. Yes.

CERTIFICATE OF SERVICE

I hereby certify that a copy of the Direct Testimony of Aaron J. Doll was sent via electronic mail, this 31st day of January, 2019, addressed to:

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