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Items, and Rate Design
Witness: W. Scott Keith
Type of Exhibit: Direct Testimony
Sponsoring Party: Empire District Electric
Case No.: ER-2016-0023
Date Testimony Prepared: October 2015

Before the Public Service Commission
of the State of Missouri

Direct Testimony

of

W. Scott Keith

October 2015



Empire Exhibit No. 7
Date 6-2-16 Reporter KSF
File No. ER-2016-0023



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OF
W. SCOTT KEITH
THE EMPIRE DISTRICT ELECTRIC COMPANY
BEFORE THE
MISSOURI PUBLIC SERVICE COMMISSION
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DIRECT TESTIMONY
OF
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MISSOURI PUBLIC SERVICE COMMISSION
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1 **INTRODUCTION**

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

3 A. My name is W. Scott Keith, and my business address is 602 S. Joplin Avenue, Joplin,
4 Missouri.

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

6 A. I am presently employed by The Empire District Electric Company (“Empire” or the
7 “Company”) as the Director of Planning and Regulatory. I have held this position
8 since August 1, 2005. Prior to joining Empire, from 1995 to July 2005, I was Director
9 of Electric Regulatory Matters in Kansas and Colorado for Aquila, Inc.

10 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.**

11 A. In August 1973, I received a Bachelor of Business Administration degree with a
12 major in Accounting from Washburn University, Topeka, Kansas.

13 **Q. WHAT EXPERIENCE HAVE YOU HAD IN THE FIELD OF
14 PUBLIC UTILITIES?**

15 A. In 1973, I accepted a position in the firm of Troupe Kehoe Whiteaker & Kent as a
16 staff accountant. I assisted in or was responsible for fieldwork and preparation of
17 exhibits for rate filings presented to various regulatory commissions and audits
18 leading to opinions on financial statements for various types of companies including
19 utility companies.

1 In September 1976, I accepted a position with the staff of the Kansas Corporation
2 Commission (“KCC”). My responsibilities at the KCC included the investigation of
3 utility rate applications and the preparation of exhibits and presentation of testimony
4 in connection with applications that were under the jurisdiction of the KCC. The
5 investigations I performed on behalf of the KCC included the areas of accounting,
6 cost of service, and rate design.

7 In March of 1978, I joined the firm of Drees Dunn & Company and continued to
8 perform services for various utility clients with that firm until it dissolved in March of
9 1991.

10 From March of 1991 until June of 1994, I was self-employed as a utility consultant
11 and continued to provide clients with analyses of revenue requirements, cost of
12 service studies, and rate design. In connection with those engagements, I also
13 provided expert testimony and exhibits to be presented before regulatory
14 commissions.

15 As I mentioned earlier, I was employed by Aquila, Inc., as the Director of Regulatory
16 for its electric operations in Kansas and Colorado from 1995 to July 2005.

17 **Q. HAVE YOU PREVIOUSLY PARTICIPATED IN ANY**
18 **REGULATORY PROCEEDINGS?**

19 A. Yes, I have. I have testified before regulatory commissions in the states of Kansas,
20 Arkansas, Colorado, Indiana, Missouri, Oklahoma, and West Virginia. I have also
21 testified before the Federal Energy Regulatory Commission (“FERC”).

1 **PURPOSE**

2 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN**
3 **THIS CASE BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION**
4 **(“COMMISSION”)?**

5 A. My testimony will support the updated investment in plant in service at June 30,
6 2015, including adjustments to reflect the investment in Empire’s Riverton 12
7 combined cycle generating unit, the sale of a transmission line to Westar Energy, Inc.
8 (“Westar”), and the addition of several service vehicles. Each of these adjustments to
9 plant in service was necessary to reflect significant plant changes that had taken place
10 or will take place after June 30, 2015, and prior to March 31, 2016. In addition to
11 adjustments in these areas of plant in service, I will support the adjustments that are
12 required to reflect the inclusion in rate base of the accumulated depreciation reserve
13 deficiency associated with the retirement of Riverton Units 7, 8, and 9, and the
14 updating of various miscellaneous rate base items, such as, customer advances,
15 customer deposits, investment in demand-side management programs, and
16 accumulated deferred income taxes. I will also describe Empire’s rate design
17 proposals.

18 **Q. WHAT TEST YEAR DID THE COMPANY USE IN DETERMINING RATE**
19 **BASE, OPERATING INCOME, AND RATE OF RETURN?**

20 A. In general, the plant in service schedules included in this filing are based upon an
21 EMS run developed by Staff of the Commission dated March 26, 2015, in Case No.
22 ER-2015-0351, updated for changes in investment in various rate base items as of
23 June 30, 2015, and major changes in investment in plant in service that will take place
24 in Empire’s operations subsequent to June 30, 2015. More specifically, Empire is

1 including the significant changes in investment related to the conversion of Empire's
2 Riverton 12 unit to operate as a combined cycle, the purchase of vehicles, and the
3 accumulated depreciation reserve deficiency related to the retirement of Riverton
4 units 7, 8, and 9. For example, the completion of the Riverton conversion project is
5 not scheduled to take place until the spring of 2016, and the deficiency in the
6 depreciation reserve has yet to be fully reflected on Empire's books and records as of
7 June 30, 2015. The Riverton combined cycle conversion is the main cost driver of
8 this case. Empire witness Tim Wilson will discuss the Riverton conversion project in
9 his direct testimony, and Empire witness Bryan Owens discusses the major factors
10 driving Empire's request for an increase in its Missouri rates in his direct testimony.

11 **SUPPORTING SCHEDULES**

12 **Q. WHAT SCHEDULES ARE YOU SPONSORING?**

13 A. I am sponsoring Empire's proposed tariff sheets, which incorporate the changes
14 necessary to collect the proposed increase in Empire's rates of \$33.4 million or 7.3
15 percent.

16 **ADJUSTMENTS TO COST OF SERVICE**

17 **Q. PLEASE EXPLAIN THE UPDATING AND PRO FORMA ADJUSTMENTS**
18 **YOU ARE SPONSORING TO PLANT IN SERVICE.**

19 A. Empire has updated the Missouri jurisdictional plant investment from the August 31,
20 2014 balance of \$1.941 billion included in the Staff EMS run dated 3-26-15, to a
21 Missouri jurisdictional balance of \$2.078 billion at June 30, 2015. In addition, these
22 Missouri jurisdictional balances have been adjusted for the common general plant
23 used by Empire's other operations, the addition of vehicles and power operated
24 equipment, the sale of a transmission line to Westar, and the completion of the

1 Riverton 12 conversion. In total, the adjustments in these three areas increase
2 Empire's investment in Missouri jurisdictional plant by \$158 million.

3 **Q. PLEASE DESCRIBE EACH OF THE ADJUSTMENTS MADE TO PLANT IN**
4 **SERVICE.**

5 A. The most significant adjustment to plant in service is related to the conversion of
6 Riverton 12 to a combined cycle. This adjustment results in an increase in Empire's
7 Missouri jurisdictional electric plant of \$160.758 million. In addition to reflecting the
8 impact of the Riverton 12 conversion, an adjustment of \$2.9 million was made to
9 Empire's Missouri jurisdictional plant in service to reflect the planned purchase of
10 new power operated equipment. The Missouri jurisdictional plant balances have also
11 been adjusted to reflect the sale of transmission assets to Westar. The sale of these
12 assets was approved by the Commission (File No. EO-2015-0172), and the
13 transaction closed subsequent to the June 30, 2015 update period used in Empire's
14 filing (August 2015), necessitating the adjustment. The adjustment results in a
15 decrease in Missouri jurisdictional plant in service of \$3.4 million.

16 **Q. PLEASE DESCRIBE THE ADJUSTMENT MADE TO PLANT IN SERVICE**
17 **FOR COMMON PLANT.**

18 A. This particular adjustment has routinely been reflected in Empire's electric rate cases
19 to assign an appropriate level of common facilities to Empire's other operations,
20 including The Empire District Gas Company. This particular adjustment changes as
21 the plant balances are updated. The analysis used to determine the adjustment in this
22 case is consistent with that used in past cases, and simply updates the common plant
23 adjustment to the new cutoff point of June 30, 2015. The result is a decrease in
24 Missouri jurisdictional plant in service of \$1.9 million.

1 Q. WAS EMPIRE'S ACCUMULATED PROVISION FOR DEPRECIATION
2 UPDATED TO JUNE 30, 2015, AND ADJUSTED FOR KNOWN AND
3 MEASURABLE CHANGES TAKING PLACE SUBSEQUENT TO JUNE 30,
4 2015?

5 A. Yes. The Missouri jurisdictional depreciation reserve balances were updated through
6 June 30, 2015, and adjusted where necessary to reflect changes taking place after
7 June 30. More specifically, adjustments were made to reflect reclassification of Iatan
8 2, per the Commission's order in Case No. ER-2014-0351, the sale of transmission
9 assets to Westar, and the updated common plant adjustment. In total, the adjustments
10 made to the depreciation reserve reduced the Missouri jurisdictional depreciation
11 reserve balance by \$3.0 million.

12 Q. WERE THE OTHER RATE BASE ITEMS UPDATED AND ADJUSTED AS
13 PART OF EMPIRE'S FILING?

14 A. Yes. The various miscellaneous rate base items such as materials and supplies,
15 prepayments, regulatory assets, accumulated deferred income taxes, etc. were either
16 updated for activity through June 30, 2015, or adjusted as part of the filing. In this
17 particular instance, the miscellaneous rate base includes a new item related to
18 Empire's new solar rebate program. Empire witness Bryan Owens will discuss this
19 asset in greater detail in his testimony.

20 Q. PLEASE DESCRIBE THE OVERALL CHANGE IN RATE BASE FROM THE
21 RATE BASE DISPLAYED IN THE STAFF'S EMS RUN OF MARCH 26, 2015.

22 A. As compared with Staff's EMS run of March 26, 2015, in Case No. ER-2014-0351,
23 Empire's Missouri jurisdictional rate base included in this filing increased from
24 \$1.086 billion to \$1.368 billion, or by approximately \$282 million. The major factors

1 driving the increase in rate base since the Staff EMS run are the conversion of the
2 Riverton 12 unit to combined cycle status (\$161 million) and the completion and
3 actual recording of the environmental retrofit at Asbury in Empire's various plant
4 accounts (in excess of \$101 million). In addition to this plant activity related directly
5 to the environmental projects at Riverton and Asbury, the Missouri jurisdictional rate
6 base includes two new items that were not part of the Staff's EMS run in Case No.
7 ER-2014-0351. These two items are: a depreciation reserve deficiency due to the
8 retirement of the Riverton coal units (\$9.7 million) and the inclusion of a regulatory
9 asset related to Empire's solar rebate program in Missouri (\$3.5 million). The solar
10 regulatory asset does not include any of the margin associated with the lower sales
11 levels Empire will experience as a result of the solar installations. We currently
12 estimate that around \$468,000 of lost margin is associated with the solar installations
13 that are scheduled to be installed by March 31, 2016. Ultimately, this margin
14 shortfall will be borne by Empire's customers. Empire witnesses Tom Sullivan and
15 Bryan Owens will address the reserve deficiency and solar regulatory asset in their
16 direct testimony, respectively.

17 **RATE DESIGN**

18 **Q. HOW IS THE COMPANY PROPOSING TO SPREAD THE REQUESTED**
19 **INCREASE AMONG ITS CURRENT RATE CLASSES?**

20 A. Empire has proposed rate increases in the various rate classes that follow the revenue
21 allocation process used by the Commission in Empire's last case, Case No. ER-2014-
22 0351, with a couple of exceptions. The exceptions involve the allocation of the
23 revenue deficiency within the various billing components of the rate classes, and the

1 increase requested from our special contract customer, Praxair, is much lower than
2 the overall average increase.

3 **Q. PLEASE DESCRIBE THE ALLOCATION OF THE REVENUE DEFICIENCY**
4 **BETWEEN THE VARIOUS RATE CLASSES.**

5 A. Empire proposes that the revenue requirement be allocated using the process
6 authorized by the Commission in Case No. ER-2014-0351, including the following:

- 7 • No non-MEEIA rate increase for the four lighting classifications and the Feed
8 Mill classification (Identical to the Commission allocation in Case No. ER-2014-
9 0351);
- 10 • No class gets an overall decrease in rates;
- 11 • A revenue neutral rate shift equal to that used by the Commission in the final rate
12 determination in Case No. ER-2014-0351 (\$4.16 million);
- 13 • A revenue neutral shift from Praxair to the residential class (\$242,000) due to the
14 nature of the Praxair service (non-firm).

15 The following table displays the overall increase, excluding pre-MEEIA revenue of
16 \$32.8 million, by each rate class.

Class	Current Rate Revenue \$000	Increase Incl Shift \$000	Percentage
Residential	\$211,579	\$20,240	9.57
Commercial Small	43,271	2,883	6.66
Small Heating	10,301	680	6.60
General Power	86,384	4,397	5.09
Special Contract	3,719	31	.83
Total Electric Bldg	37,334	2,004	5.37
Feed Mill	113	0	0.00
Large Power	55,035	2,612	4.75
Traffic Signals	13	0	0.00
Municipal Lighting	2,271	0	0.00
Private Lighting	4,298	0	0.00
Special Lighting	123	0	0.00
Total	\$454,441	\$32,847	7.23

1 Q. PLEASE SUMMARIZE THE PROPOSED CHANGE IN THE RATE
2 COMPONENTS EMPIRE HAS INCLUDED IN ITS PROPOSED TARIFF
3 SHEETS.

4 A. With the exception of the proposed changes to the small commercial class, which
5 used an “across the board” percentage increase to all billing components, I
6 recommend that the fixed components of the various rate charges be increased to
7 recover the required increase in revenue. The fixed components include the customer
8 charge, facilities demand charge, and billing demand charge. This will move
9 Empire’s rates toward cost of service, which includes a substantial portion of costs
10 that are fixed, not variable; improve the price signal to the customers, which will
11 enable our customers to make more efficient decisions concerning usage and energy
12 efficiency; and lessen the impact on Empire’s lower income consumers, who on the
13 average use more than the average customer during the winter months. The following
14 table displays the changes in fixed rate charges Empire has included in its proposed
15 rates:

Class	Existing	Proposed	Change
Residential:			
Customer Charge	\$12.52	\$14.47	\$1.95
Commercial:			
Customer Charge	\$22.00	\$23.47	\$1.47
General Power:			
Customer Charge	\$68.07	\$80.72	\$12.65
Facilities Demand Charge	\$2.03	\$2.41	\$0.38
Billing Demand	\$7.18/\$5.60	\$8.51/\$6.64	\$1.33/\$1.04
Special Contract:			
Customer Charge	\$255.97	\$261.01	\$5.04
Facilities Demand Charge	\$0.50	\$.51	\$0.01

Billing Demand	\$24.87/\$16.90	\$25.36/\$17.23	\$0.49/\$0.33
Total Electric Buildings:			
Customer Charge	\$68.27	\$84.87	\$16.60
Facilities Demand	\$2.04	\$2.51	\$0.47
Billing Demand	\$3.36/\$2.76	\$4.18/\$3.43	\$0.82/\$0.67
Large Power:			
Customer Charge	\$251.38	\$291.04	\$39.66
Facilities Demand	\$1.67	\$1.93	\$0.26
Billing Demand	\$13.90/\$7.68	\$16.09/\$8.89	\$2.19/\$1.21

1 **Q. HAS EMPIRE INCLUDED A PROPOSED TARIFF SHEET THAT**
2 **DECOUPLES BASE RATE REVENUE PRODUCTION FROM THE**
3 **VOLUME OF ELECTRICITY SOLD?**

4 A. No. However, with the movement towards more fixed cost recovery in the form of
5 increased fixed charges in the basic rate design in this case, Empire is proposing a
6 rate design that moves toward the decoupling of sales volume and revenue
7 production.

8 **Q. HOW DID YOU DEVELOP THE PROPOSED CUSTOMER CHARGE FOR**
9 **THE RESIDENTIAL CLASS?**

10 A. I used the percentage increase granted by the Commission in the last rate case (Case
11 No. ER-2014-0351) for the residential class, of 6.02 percent, plus the overall class
12 percentage increase being requested in this case of 9.5 percent, for a total of 15.5
13 percent or \$1.95.

14 **Q. WHY DID YOU INCLUDE THE CLASS PERCENTAGE INCREASE**
15 **GRANTED IN THE LAST CASE AS PART OF THE CALCULATION OF**
16 **THE NEW CUSTOMER CHARGE?**

1 A. The residential customer charge was not increased in the last case due to the
2 settlement. This was contrary to the various cost of service studies prepared and
3 provided by the various parties in the last rate case, and the preponderance of the
4 costs driving Empire's cost of service and this rate case, which are fixed, not variable.
5 In addition, by increasing the customer charge more than the class average in this
6 case, Empire will move towards cost of service, which in turn will help our larger
7 residential users, including those low income customers that use more than the class
8 average in the winter.

9 **Q. HOW DID EMPIRE DETERMINE THAT LOW INCOME CUSTOMERS USE**
10 **MORE THAN THE RESIDENTIAL CLASS AVERAGE IN THE WINTER**
11 **SEASON?**

12 A. We analyzed the billing data for the residential customer class for the twelve month
13 period ending December 31, 2014, with specific emphasis on those customers who
14 participate in LIHEAP. We determined that during that historical period an average
15 Empire customer used 1,168 kWh during the winter months, while the average
16 residential LIHEAP customer used 1,570 kWh during those same winter months. By
17 increasing the customer charge greater than the class average of 9.5 percent, we were
18 able to reduce the level of increase in the energy to below the class average increase
19 of 9.5 percent to 8.9 percent. In addition to the increase in the customer charge,
20 which should help Empire's LIHEAP customers during the winter season when
21 weather drives consumption and heating is essential, Empire has requested an
22 increase in the budget for Empire's authorized Low Income weatherization program
23 of \$25,000 per year. This would make the authorized annual budget go from the
24 current level of \$225,000 to \$250,000.

1 **PRE-MEEIA ENERGY EFFICIENCY**

2 **Q. HOW DOES EMPIRE PROPOSE TO RECOVER THE COSTS ASSOCIATED**
3 **WITH ITS PRE-MEEIA ENERGY EFFICIENCY PROGRAMS?**

4 A. The annualized cost of these energy efficiency programs will be billed as a separate
5 line item on our customers' bills at a rate of \$0.00055 per kilowatt-hour ("KWH").
6 This represents an increase of \$0.00015 per KWH from the charge on our customers'
7 bills today. Those customers who have opted-out or will opt-out under the
8 Commission's MEEIA rule will not be billed for these pre-MEEIA energy efficiency
9 costs.

10 **TIME OF USE ("TOU") LARGE POWER RATE**

11 **Q. HAS EMPIRE DISCUSSED THE EXPANSION OF THE TOU CONCEPT TO**
12 **THE LARGE POWER CLASS WITH THE PARTIES TO THE LAST RATE**
13 **CASE, INCLUDING COUNSEL FOR VARIOUS MEMBERS OF THE LP**
14 **CLASS, SINCE THE COMMISSION ISSUED ITS REPORT AND ORDER IN**
15 **CASE NO. ER-2014-0351?**

16 A. Yes. Empire has held several meetings with the parties to the last case and have
17 discussed various issues concerning the last case and the preparation of this rate
18 filing. Included in these discussions was the ability to expand the availability of TOU
19 concept, which is currently restricted due to limitations within the existing billing
20 system. As a result of our discussions, Empire is not offering to expand this billing
21 concept as part of this rate case, but will defer consideration until the billing system
22 limitations are addressed in the next scheduled billing system enhancement, which is
23 currently scheduled to occur in the next two years.

1 **STANDBY RATE DESIGN**

2 **Q. IS EMPIRE PROPOSING A NEW STANDBY RATE AS PART OF THIS**
3 **CASE?**

4 A. No, not at this time.

5 **Q. HAS EMPIRE DISCUSSED THE STATUS OF A STANDBY RATE OR**
6 **TARIFF WITH THE PARTIES TO THE LAST RATE CASE?**

7 A. Yes. As part of the meetings Empire has held with the parties to the last rate case, the
8 status of the standby tariff has been discussed.

9 **Q. WHAT IS THE STATUS OF EMPIRE'S STANDBY RATE?**

10 A. It is still a work in progress. Empire is participating in the Standby workshops being
11 held by Ameren. These workshops are proving to be beneficial to the various parties,
12 including some of the same parties involved in this issue in Empire's last rate case, by
13 addressing what type and level of charges should be included in a standby rate. The
14 next Ameren workshop is scheduled for late October 2015, with a goal of reaching a
15 consensus on the rate and a potential exemplar tariff by the beginning of next year.
16 Once the Ameren workshop process is complete and an exemplar standby tariff is
17 forthcoming, Empire intends to incorporate as much of the information/concepts
18 developed in the Ameren workshop that apply to Empire's operation into the design
19 of an exemplar standby tariff for Empire. Depending upon the actual timing of the
20 completion of the Ameren workshop and the related tariff process, this information
21 may be available for consideration in this Empire case.

22 **Q. ARE THERE ANY EXISTING COMBINED HEAT AND POWER ("CHP")**
23 **CUSTOMERS ON THE EMPIRE SYSTEM THAT WOULD BE ELIGIBLE**
24 **TO USE A STANDBY TARIFF?**

1 A. No. Empire currently has no CHP customers, and Empire's existing customer base
2 does not include customers that have significant and constant steam load like that
3 associated with a heavy industry such as chemicals or refining. Therefore, the
4 development of such a tariff is not a critical issue for Empire or its customers.

5 **MISCELLANEOUS TARIFF CHANGES**

6 **Q. PLEASE DESCRIBE THE OTHER MISCELLANEOUS TARIFF CHANGES**
7 **EMPIRE IS PROPOSING AS PART OF THIS RATE CASE.**

8 A. Empire is proposing some minor changes to the Commercial & Industrial Customer
9 Energy Efficiency tariff as part of this case. These changes involve the inclusion of
10 the Large Power rate class as eligible to participate in the C&I program and the
11 revision of the contact information included in the tariff.

12 **Q. WHY DO YOU RECOMMEND THAT THE C&I TARIFF BE REVISED TO**
13 **INCLUDE THE LP CLASS AS ELIGIBLE TO PARTICIPATE?**

14 A. The LP rate class needs to be included so customers within the class are eligible to
15 participate. Currently, those LP customers who have not opted out under the current
16 Commission rules are required to pay Empire's approved pre-MEEIA energy
17 efficiency charge even though under the tariff they are prohibited from participating
18 in the program. The proposed change will eliminate this inconsistency. The majority
19 of Empire's LP customers have opted out under the Commission rules and are not
20 affected by this proposal. The change in contact information is purely ministerial in
21 nature as Empire's internal staffing has undergone changes since the tariff was
22 initially developed, and the proposed change will bring this information up to date.

23 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

24 A. Yes.

