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Witness: Bethany Q. King
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File No. ER-2018-0086
Date Testimony Prepared: October 2017

**Before the Public Service Commission
Of the State of Missouri**

Direct Testimony

Of

Bethany Q. King

**Originally Filed September 27, 2017
Updated October 16, 2017**



Empire District™
A Liberty Utilities Company

DIRECT TESTIMONY
OF
BETHANY Q. KING
THE EMPIRE DISTRICT ELECTRIC COMPANY
BEFORE THE
PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI
FILE NO. ER-2018-0086

1 **INTRODUCTION AND QUALIFICATIONS**

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

3 A. My name is Bethany Q. King. My title is the Manager of Strategic Planning for The
4 Empire District Electric Company (“Empire” or “Company”), and my business
5 address is 602 S. Joplin Avenue, Joplin, Missouri.

6 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL
7 BACKGROUND FOR THE COMMISSION.**

8 A. I hold a Bachelor of Science degree in computational mathematics with majors in
9 mathematics and computer science from Missouri Southern State University.
10 Additionally I hold an Associates of Science degree in Computer Programming
11 from Missouri Southern State University. I was employed by St John’s Regional
12 Medical Center from 1998 to 2006 and served in various roles in the Information
13 Technology Department including Network Engineer. In 2006, I began my
14 employment with Empire as an Internal Auditor specializing in Information
15 Technology and performed various audits related to SOX compliance, customer bill
16 recalculations, inventory audits, and information technology process audits. I joined
17 the Supply Management Department in 2009 as an Energy Trader and was

1 promoted to Planning Analyst in January 2014. My responsibilities were assisting
2 with the Southwest Power Pool (SPP) Integrated Marketplace implementation
3 project, natural gas hedge activity reporting, representing Empire as a voting
4 member of the SPP Change Working Group and the Economic Studies Working
5 Group, and various special studies related to the SPP marketplace and annual fuel
6 and purchase power budgets. In June 2016, I accepted the position of Planning and
7 Energy Efficiency Analyst in the Planning and Regulatory Department where I was
8 responsible for the development of five year demand, energy, sales, and revenue
9 budgets for electric, gas and water segments as well as monthly variance reporting
10 and quarterly weather normalization studies. I was promoted to Manager of
11 Strategic Planning in October 2016. My responsibilities include oversight of the
12 development of annual demand, energy, sales, and revenue budgets, integrated
13 resource planning and energy efficiency related program administration and
14 analysis.

15 **Q. HAVE YOU EVER TESTIFIED BEFORE THIS OR ANY OTHER STATE**
16 **UTILITY COMMISSION?**

17 A. Yes. I have testified on behalf of Empire before the Missouri Public Service
18 Commission (“Commission”), the Kansas Corporation Commission, the Oklahoma
19 Corporation Commission, and the Arkansas Public Service Commission. The case
20 references are attached to this testimony as Exhibit BQK-1.

21 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

22 A. My testimony will support the Fuel & Purchased Power Adjustment Clause
23 (“FAC”) rate schedules that have been filed by Empire to reflect the actual energy

1 costs that Empire has incurred during the six-month period March 2017 through
2 August 2017. This six-month period is an Accumulation Period specified in
3 Empire's FAC tariff that was approved by the Commission in its Report and Order
4 issued in File No. ER-2016-0023. This testimony was originally filed on September
5 27, 2017. Updated testimony is being filed on October 16, 2017, at the request of
6 the Office of the Public Counsel ("OPC") and the Staff of the Commission
7 ("Staff"). Changes from the September filing to the updated filing in October are as
8 follows: (1) Schedule BQK-3 has been added to this testimony. It contains the
9 information provided to the parties by Empire through email, but not filed in the
10 case, when Empire made its initial filing. Three summary pages have also been
11 added to address OPC's concerns. (2) Schedule BQK-2 includes an update to round
12 the interest on the tariff sheet to the nearest dollar amount, and a correction to the
13 Missouri Energy Ratio on line 4 has been made from 81.77% to 81.79%. It should
14 be noted 81.79% is a rounded number (from 81.7861%), which will cause the value
15 in line 5 to calculate slightly higher than the value on Schedule BQK-2.

16 **EXECUTIVE SUMMARY**

17 **Q. PLEASE PROVIDE AN OVERVIEW OF YOUR TESTIMONY IN**
18 **SUPPORT OF THE FAC RATE SCHEDULES FILED BY EMPIRE.**

19 A. The Commission's rule governing fuel and purchased power cost recovery
20 mechanisms for electric utilities – specifically 4 CSR 240-20.090(4) – requires
21 Empire to make periodic FAC filings that are designed to enable Commission
22 review of the actual fuel costs, purchased power costs, cost of consumables
23 associated with the power plants' air quality control system ("AQCS"), net cost of

1 emission allowances, revenue from the sale of renewable energy credits (“REC”)
2 and off-system sales margins (collectively referred to as total energy costs) the
3 Company has incurred during an Accumulation Period. In addition, these periodic
4 filings are designed to adjust the FAC rates up or down, to reflect the actual energy
5 costs incurred during the Accumulation Period. Empire’s FAC tariff calls for two
6 annual filings: a filing covering the six-month Accumulation Period running from
7 September through February and a second filing covering the Accumulation Period
8 running from March through August. Any increases or decreases in rates approved
9 by the Commission, or that take effect by operation of law, are then collected from
10 or refunded to customers over two six-month Recovery Periods: June through
11 November and December through May.

12 Since the implementation of Empire’s FAC, the variable cost of fuel and purchased
13 power used by the Company’s Missouri customers has varied from the base fuel
14 and energy cost established in rates. For the Accumulation Period March 2017
15 through August 2017, Empire’s actual total energy costs eligible for the FAC have
16 been higher than the base energy costs included in the Company’s Missouri rates by
17 approximately \$5,110,442. In accordance with the FAC tariff, Empire has absorbed
18 5% of the overall increase in Missouri variable energy costs during that six-month
19 period. Therefore, in accordance with the Commission’s FAC rule and Empire’s
20 approved FAC tariff, the Company has filed FAC rate schedules that are designed
21 to recover 95 percent of the energy cost differences of approximately \$4,854,920
22 from its Missouri jurisdictional customers.

23 In addition, Empire also seeks to return approximately \$1,045,682, which is further

1 described in the true-up testimony that is provided in a separate filing, of over-
2 recovered energy costs from the prior recovery period ending May 31, 2017. This
3 brings the total net recovery sought by the Company to approximately \$3,837,264
4 including interest. This total represents the Fuel and Purchased Power Adjustment
5 (“FPA”).

6 As reflected in the rate schedules filed by the Company, Empire has developed two
7 Fuel Adjustment Rates (“FAR”) designed to recover the FPA, each of which is
8 based on forecasted retail Missouri sales over the next Recovery Period: a FAR of
9 \$0.00181 per kilowatt-hour (kWh) for primary service, and a FAR of \$0.00184 per
10 kWh for secondary service have been developed for this filing. These FARs will
11 enable Empire to recover over a Recovery Period ending May 2018 the difference
12 between base energy costs built into its rates and the total energy costs actually
13 incurred during the Accumulation Period and the true-up of fuel and energy costs
14 during the Recovery Period ended May 31, 2017.

15 **Q. DOES THE EMPIRE FAC TARIFF INCLUDE PROVISIONS THAT ARE**
16 **DESIGNED TO LIMIT EMPIRE’S FAC RECOVERYS TO THE ACTUAL**
17 **COST OF ENERGY?**

18 A. Yes. The Empire FAC and the Commission’s rule governing FACs include two
19 safeguards limiting FAC recovery to actual, prudently-incurred energy costs. The
20 first safeguard is a true-up process that ensures the FAC collections during the
21 Recovery Period do not exceed actual energy costs incurred during the
22 Accumulation Period. The second safeguard involves a requirement that Empire’s
23 energy costs be subjected to periodic Prudence Reviews, which will ensure only

1 prudently-incurred energy costs are passed through to customers using the FAC.
2 Empire's operation of the FAC has been audited by the Commission's staff through
3 August 31, 2016. Staff filed its report in File No. EO-2017-0065; no disallowances
4 were recommended. The Office of Public Counsel requested an Evidentiary
5 Hearing in the matter. Post hearing briefs will be submitted October 5, 2017.

6 **THE PROPOSED FAC RATE ADJUSTMENT**

7 **Q. WHY HAS EMPIRE FILED FAC-RELATED RATE SCHEDULES AT THIS**
8 **TIME?**

9 A. The Commission's rules – specifically 4 CSR 240-20.090(4) – and Empire's FAC
10 tariff require the Company to make periodic FAC filings that enable the
11 Commission to review Empire's actual fuel, purchased power, AQCS costs, off-
12 system sales, REC revenue, and net costs of emissions allowances so that Empire's
13 FAC rates can be adjusted to reflect the actual energy costs the Company incurs to
14 provide electric service to its Missouri customers. Empire's Missouri FAC tariff
15 calls for two FAC adjustment filings per year: a filing covering the six-month
16 Accumulation Period running from September through February and a second filing
17 covering the Accumulation Period running from March through August. Empire
18 is seeking an increase in its FAC rates to reflect 95% of the difference between the
19 base energy costs built into its base Missouri rates and Empire's actual Missouri
20 energy costs for the Accumulation Period, plus a true-up of the costs recovered
21 during the Recovery Period ending May 31, 2017. This recovery via FAC rates will
22 be reflected on the Missouri customers' bills over the six-month Recovery Period
23 running from December 2017 through May 2018.

1 **Q. HOW HAVE EMPIRE'S AVERAGE ENERGY COSTS CHANGED OVER**
2 **THE COST INCLUDED IN BASE RATES DURING THE**
3 **ACCUMULATION PERIOD?**

4 A. Empire's average energy costs per kWh have increased above the level built into its
5 base electric rates, which is why the FAC rate schedules filed by the Company seek
6 an increase in the rates charged to the Missouri customers. More specifically,
7 Empire's Missouri base rates included an average cost of energy per kWh of net
8 system production of \$0.02415 during the Accumulation Period of March 2017
9 through August 2017. Empire actually incurred average energy costs of \$0.02656
10 per kWh during the Accumulation Period. This represents an overall increase in
11 average energy costs of \$0.00240 per kWh during the Accumulation Period, or
12 about 9.95 percent higher than the average cost built into base rates. Pursuant to
13 Empire's FAC tariff, Empire is requesting to recover from its Missouri customers
14 the net of 95 percent of this cost increase less approximately \$1,045,682 of over
15 recovered energy cost and \$28,026 of interest income from the Recovery Period
16 ending May 31, 2017, or an average of \$0.00173 per kWh sold during the
17 upcoming Recovery Period.

18 **Q. HOW DOES THE MONTHLY FAC CHANGE FOR A TYPICAL**
19 **RESIDENTIAL CUSTOMER?**

20 A. For Missouri residential customers using 1,000 kWh per month, the electric bill
21 will increase by approximately \$0.16 per month over the six-month period
22 December 2017 through May 2018, when the current FAC charge of \$0.00184 is
23 applied to their bill and the previous FAC recovery factor of \$0.00168 is eliminated

1 from their bill.

2 **Q. DID THE AVERAGE ENERGY COST VARY FROM EXPECTATIONS?**

3 A. Yes, the actual total energy cost per megawatt-hour was slightly below the
4 Company budget by approximately 0.74 percent.

5 **Q. DO YOU EXPECT THE AVERAGE ENERGY COSTS ELIGIBLE FOR**
6 **THE FAC TO BE HIGHER OR LOWER THAN THE BASE DURING THE**
7 **NEXT ACCUMULATION PERIOD FROM SEPTEMBER 2017 THROUGH**
8 **FEBRUARY 2018?**

9 A. Based on the current budget, Empire expects the total energy costs eligible for the
10 FAC to be about 4.8% higher than the base. The period in question, September
11 2017 through February 2018, contains the winter months, so this period has the
12 potential for a higher average cost per megawatt-hour than what would be expected
13 for an annual average cost per megawatt-hour. The current budget, which assumes
14 normal weather, anticipates average energy costs eligible for the FAC to be higher
15 than the current FAC base of \$24.15 per megawatt-hour during the next
16 Accumulation Period.

17 **Q. DO YOU BELIEVE EMPIRE'S FUEL ADJUSTMENT CLAUSE IS**
18 **REASONABLE AND APPROPRIATE?**

19 A. Yes. The design of the Commission's rule governing the FAC was the subject of
20 much discussion and debate prior to being approved by the Commission. In
21 addition, there was much discussion and debate concerning Empire's FAC tariff in
22 Case No. ER-2008-0093. This was the case in which the Commission ultimately
23 approved Empire's initial FAC tariff. Additional discussions have occurred in

1 subsequent cases. Empire's FAC filing is being made in accordance with the
2 Commission's rules governing the FAC and in accordance with the FAC tariff
3 approved for Empire.

4 **Q. PLEASE DESCRIBE HOW EMPIRE IS PROPOSING TO COLLECT THE**
5 **ENERGY COST INCREASES EXPERIENCED DURING THE**
6 **SEPTEMBER 2017-FEBRUARY 2018 ACCUMULATION PERIOD?**

7 A. The FAC rate schedule filed by Empire will collect the energy cost increase actually
8 incurred during the Accumulation Period by applying the positive Fuel Adjustment
9 Rate or FAR of \$0.00181 for primary and \$0.00184 for secondary service to the
10 actual Missouri retail kWh sales that take place during the December 1, 2017 to
11 May 31, 2017 Recovery Period. The proposed FARs were calculated in accordance
12 with Empire's authorized FAC tariff. I have attached to my testimony, as Schedule
13 BQK-2, an exemplar copy of one of Empire's approved FAC tariff sheets. In
14 addition to the tariff sheet, I have included as page 2 of Schedule BQK-2 a monthly
15 analysis of the energy costs and energy cost recovery that has taken place during the
16 Accumulation Period. Schedule BQK-2 contains the basic information and FAC
17 formula that Empire used to calculate the FARs that have been included in the
18 proposed revised FAC rate schedule sheet 17e. The Empire FAC tariff and the
19 formula included therein were approved by the Commission in File No. ER-2016-
20 0023.

21 **Q. HOW WERE THE VARIOUS VALUES USED TO DETERMINE THE**
22 **PROPOSED FARS SHOWN ON SCHEDULE BQK-2 DEVELOPED?**

23 A. The data upon which Empire based the values for each of the variables in the

1 approved FAR formula are included on the schedule, and came from Empire's
2 books and records. Schedule BQK-2 contains all of the basic information that is
3 required to calculate the proposed change in the FAR. In addition, Empire has filed
4 the detailed information required by 4 CSR 240-3.161(7) (A) with this testimony as
5 a separate set of supporting workpapers. Additional information about the true-up
6 amount was filed concurrently in a separate docket. Also, as required by 4 CSR
7 240-3.161(7) (B), the Company has separately provided to all parties of record in
8 File Nos. ER-2008-0093, ER-2010-0130, ER-2011-0004, ER-2012-0345, ER-
9 2014-0351, and ER-2016-0023 with a set of these workpapers.

10 **Q. IS EMPIRE IN COMPLIANCE WITH THE PROVISIONS OF THE**
11 **COMMISSION'S FAC RULE CONCERNING PERIODIC REPORTING**
12 **AND SURVEILLANCE?**

13 A. Yes. Empire has complied with all of the Commission's rules, 4 CSR 240-3.161(5)
14 and (6), governing periodic reports and surveillance using the Commission's
15 electronic filing system and provided all of the parties to File Nos. ER-2008-0093,
16 ER-2010-0130, ER-2011-0004, ER-2012-0345, ER-2014-0351, and ER-2016-0023
17 with copies of the periodic compliance reports and copies of surveillance reports at
18 the same time they were filed with the Commission.

19 **Q. IF FAC SHEET 17e IS APPROVED BY THE COMMISSION, WHAT**
20 **SAFEGUARDS EXIST TO ENSURE THE FAC REVENUE COLLECTED**
21 **BY EMPIRE DOES NOT EXCEED THE ACTUAL TOTAL ENERGY COST**
22 **INCURRED BY EMPIRE DURING THE ACCUMULATION PERIOD?**

23 A. As mentioned earlier, Empire's FAC and the Commission's rules provide two

1 mechanisms designed to limit the FAC amounts collected from customers to
2 Empire's actual, prudently-incurred energy costs. First, at the end of each Recovery
3 Period the Company is required to true-up the amounts collected from customers
4 through the FAR with the total energy costs that were actually incurred during the
5 Accumulation Period to which the FAR applies. In addition, Empire's energy costs
6 will be subjected to periodic Prudence Reviews to ensure that only prudently-
7 incurred energy costs are collected from customers through the FAC. These two
8 mechanisms serve as checks that ensure that Empire's Missouri customers pay only
9 the prudently-incurred, actual cost of energy used to provide electric service in
10 Missouri (less the 5% Empire absorbs or retains) – no more and no less.

11 **Q. WHAT ACTION IS EMPIRE REQUESTING FROM THE COMMISSION**
12 **WITH RESPECT TO THE FAC RATE SCHEDULE THAT THE**
13 **COMPANY HAS FILED?**

14 A. As provided by 4 CSR 240-20.090(4), Staff has thirty (30) days from the date the
15 FAC rate schedule is filed to conduct a review and to make a recommendation to
16 the Commission as to whether the rate schedule complies with the Commission's
17 FAC rules, the requirements of Section 386.266, RSMo, and Empire's approved
18 FAC. The Commission has sixty (60) days from the date of Empire's filing to
19 either approve the rate schedule or to allow it to take effect by operation of law.
20 Empire believes its FAC filing satisfies all of the requirements of applicable
21 statutes, the Commission's rules, and Empire's approved FAC. Empire requests,
22 following Staff's review, the Commission approve revised FAC sheet 17e to be
23 effective as of December 1, 2017, which is the first day of the Recovery Period

1 prescribed in Empire's FAC tariff.

2 **Q. IS EMPIRE REQUESTING ANY OTHER CHANGES TO THE FAC**
3 **TARIFF AT THIS TIME?**

4 A. No other changes to the FAC tariff sheets are being requested at this time.

5 **Q. DOES THIS CONCLUDE YOUR TESTIMONY AT THIS TIME?**

6 A. Yes, it does.

AFFIDAVIT OF BETHANY Q. KING

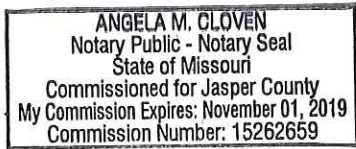
STATE OF MISSOURI)
) ss
COUNTY OF JASPER)


On the 16th day of October, 2017, before me appeared Bethany Q. King, to me personally known, who, being by me first duly sworn, states that she is Manager of Strategic Planning of The Empire District Electric Company and acknowledges that she has read the above and foregoing document and believes that the statements therein are true and correct to the best of her information, knowledge and belief.



Bethany Q. King

Subscribed and sworn to before me this 16th day of October, 2017.





Notary Public

My commission expires: 11/01/2019.