Exhibit No.: Issue: Fuel Adjustment Clause Witness: Leslie L. Forest Type of Exhibit: Substitute Direct Testimony Sponsoring Party: Empire District Electric File No. ER-2018-0095 Date Testimony Prepared: October 2018

Before the Public Service Commission of the State of Missouri

Substitute Direct Testimony

of

Leslie L. Forest

October 10, 2018



SUBSTITUTE DIRECT TESTIMONY OF LESLIE L. FOREST THE EMPIRE DISTRICT ELECTRIC COMPANY BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI FILE NO. ER-2018-0095

1 INTRODUCTION AND QUALIFICATIONS

2 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

- 3 A. My name is Leslie L. Forest and my business address is 602 S. Joplin Avenue,
- 4 Joplin, Missouri.

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

- 6 A. I am employed by Liberty Utilities Service Corp. as a Regulatory Analyst for Liberty
- 7 Utilities Central Region, which includes The Empire District Electric Company,
- 8 Liberty Utilities (Midstates Natural Gas) Corp., and Liberty Utilities (Missouri
- 9 Water) LLC.

17

10 Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?

A. I am testifying on behalf of The Empire District Electric Company ("Empire" or
 "Company").

13 Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND FOR 14 THE COMMISSION.

- A. In 2000, I completed my Bachelor of Science in Accounting from the Missouri Southern State University in Joplin, Missouri. In 2016, I completed a Masters of
 - 1

Accountancy from Missouri Southern State University in Joplin, Missouri. Before

7	Q.	HAVE YOU EVER TESTIFIED BEFORE THIS OR ANY OTHER STATE UTILITY
6		with the State of Missouri.
5		performed sales, use and withholding tax audits on various businesses registered
4		of Revenue, Field Compliance Bureau as a Senior Tax Auditor for twelve years. I
3		Missouri Southern State University, I was employed by the Missouri Department
2		for approximately five years in the Bursar's Office. Prior to my employment at
1		working for Liberty Utilities, I was employed by Missouri Southern State University

8 **COMMISSION?**

9 A. No.

10 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to support the Fuel & Purchased Power Adjustment Clause ("FAC") rate schedules that have been filed by Empire to reflect the actual energy costs that Empire has incurred during the six-month period March 2018 through August 2018. This six-month period is an Accumulation Period specified in Empire's FAC tariff that was approved by the Commission in its Report and Order issued in File No. ER-2016-0023.

17 Q. WHY ARE YOU SUBMITTING SUBSTITUTE TESTIMONY?

A. On October 1, 2018, I filed testimony in this case which contained a few inadvertent errors which I now seek to correct. Specifically, page 3, line 18 of my testimony stated that Empire's actual total energy costs eligible for the FAC were lower than the base energy costs included in the Company's Missouri rates by approximately (\$55,567,055) when the actual amount is \$2,047,187. This

1	difference is the result of an inadvertent equation error in Schedule LLF-1 Page 1
2	line 5, and Schedule LLF-1 page 2 line (TEC-B)*J \$(55,567,055). The second change
3	that I have made to my previously filed testimony is on page 6, line 22, which
4	indicated that the Recovery Period ended December 30, 2017 when it should
5	have stated May 31, 2018. None of these corrections affect the rate schedules I
6	filed on October 1, 2018, and each of these changes are reflected in my testimony
7	below.

8 **EXECUTIVE SUMMARY**

9 Q. PLEASE PROVIDE AN OVERVIEW OF YOUR TESTIMONY IN SUPPORT OF THE FAC 10 RATE SCHEDULES FILED BY EMPIRE.

The Commission's rule governing fuel and purchased power cost recovery 11 Α. 12 mechanisms for electric utilities - specifically 4 CSR 240-20.090(4) - requires Empire to make periodic FAC filings that are designed to enable Commission 13 review of the actual fuel costs, purchased power costs, cost of consumables 14 associated with the power plants' air quality control system ("AQCS"), net cost of 15 emission allowances, revenue from the sale of renewable energy credits ("REC") 16 and off-system sales margins (collectively referred to as total energy costs) the 17 Company has incurred during an Accumulation Period. In addition, these periodic 18 filings are designed to adjust the FAC rates up or down, to reflect the actual 19 energy costs incurred during the Accumulation Period. Empire's FAC tariff calls 20 for two annual filings: a filing covering the six-month Accumulation Period 21 running from September through February and a second filing covering the 22

Accumulation Period running from March through August. Any increases or decreases in rates approved by the Commission, or that take effect by operation of law, are then collected from or refunded to customers over two six-month Recovery Periods: June through November and December through May.

Since the implementation of Empire's FAC, the variable cost of fuel and purchased 5 power used by the Company's Missouri customers has varied from the base fuel 6 and energy cost established in rates. For the Accumulation Period March 2018 7 8 through August 2018, Empire's actual total energy costs eligible for the FAC were lower than the base energy costs included in the Company's Missouri rates by 9 approximately \$2,047,187. In accordance with the FAC tariff, Empire has 10 absorbed 5% of the overall increase in Missouri variable energy costs during that 11 12 six-month period. Therefore, in accordance with the Commission's FAC rule and 13 Empire's approved FAC tariff, the Company has filed FAC rate schedules that are designed to recover 95 percent of the energy cost differences of approximately 14 \$(1,944,828) from its Missouri jurisdictional customers. 15

In addition, Empire also seeks to return approximately \$1,224, which is further described in the true-up testimony that is provided in a separate filing, of overrecovered energy costs from the prior recovery period ending May 31, 2018. This brings the total net return due to customers to approximately \$1,800,606 including interest. This total represents the Fuel and Purchased Power Adjustment ("FPA").

As reflected in the rate schedules filed by the Company, Empire has developed

two Fuel Adjustment Rates ("FAR") designed to recover the FPA, each of which is 1 2 based on forecasted retail Missouri sales over the next Recovery Period: a FAR of \$-0.00085 per kilowatt-hour (kWh) for primary service, and a FAR of \$-0.00087 3 per kWh for secondary service have been developed for this filing. These FARs 4 5 will enable Empire to return, over a Recovery Period ending May 2019, the difference between energy costs built into its base rates and the total energy 6 costs actually incurred during the Accumulation Period and the true-up of fuel 7 8 and energy costs during the Recovery Period ended May 31, 2018.

Q. DOES THE EMPIRE FAC TARIFF INCLUDE PROVISIONS THAT ARE DESIGNED TO

10 LIMIT EMPIRE'S FAC RECOVERYS TO THE ACTUAL COST OF ENERGY?

Empire's FAC and the Commission's rule governing FACs include two 11 Α. Yes. 12 safeguards limiting FAC recovery to actual, prudently-incurred energy costs. The 13 first safeguard is a true-up process that ensures the FAC collections during the Recovery Period do not exceed actual energy costs incurred during the 14 Accumulation Period. The second safeguard involves a requirement that Empire's 15 energy costs be subjected to periodic Prudence Reviews, to ensure only 16 prudently-incurred energy costs are passed through to customers using the FAC. 17 Empire's operation of the FAC has been audited by the Commission's staff 18 through February 28, 2018. Staff filed its report in File No. EO-2017-0244 finding 19 no imprudence on Empire's part. 20

21 THE PROPOSED FAC RATE ADJUSTMENT

9

22 Q. WHY HAS EMPIRE FILED FAC-RELATED RATE SCHEDULES AT THIS TIME?

The Commission's rules - specifically 4 CSR 240-20.090(4) - and Empire's FAC 1 Α. 2 tariff require the Company to make periodic FAC filings that enable the Commission to review Empire's actual fuel, purchased power, AQCS costs, off-3 system sales, REC revenue, and net costs of emissions allowances so that Empire's 4 FAC rates can be adjusted to reflect the actual energy costs the Company incurs 5 to provide electric service to its Missouri customers. Empire's Missouri FAC tariff 6 calls for two FAC adjustment filings per year: (1) a filing covering the six-month 7 8 Accumulation Period running from September through February and (2) a filing covering the Accumulation Period running from March through August. 9 Empire is seeking a decrease in its FAC rates to reflect 95% of the difference between the 10 energy costs built into its base Missouri rates and Empire's actual Missouri energy 11 12 costs for the Accumulation Period, plus a true-up of the costs recovered during the Recovery Period ending May 31, 2018. This recovery via FAC rates will be 13 reflected on the Missouri customers' bills over the six-month Recovery Period 14 running from December 2018 through May 2019. 15

16 Q. HOW HAVE EMPIRE'S AVERAGE ENERGY COSTS CHANGED OVER THE COST 17 INCLUDED IN BASE RATES DURING THE ACCUMULATION PERIOD?

A. Empire's average energy costs per kWh have declined below the level built into its base electric rates, which is why the FAC rate schedules filed by the Company seek a decrease in the rates charged to the Missouri customers. More specifically, Empire's Missouri base rates included an average cost of energy per kWh of net system production of \$0.02415 during the Accumulation Period of

1	March 2018 through August 2018. Empire actually incurred average energy costs
2	of \$0.02326 per kWh during the Accumulation Period, which is \$-0.00089 per
3	kWh or about 3.69 percent less than the average cost built into base rates.
4	Pursuant to Empire's FAC tariff, Empire is requesting to return to its Missouri
5	customers the net of 95 percent of this cost decrease plus approximately \$1,224
6	of under-recovered energy cost and \$145,446 of interest income from the
7	Recovery Period ending May 31, 2018, or an average of \$-0.00081 per kWh sold
8	during the upcoming Recovery Period.

9 Q. HOW DOES THE MONTHLY FAC CHANGE FOR A TYPICAL RESIDENTIAL 10 CUSTOMER?

A. For Missouri residential customers using 1,000 kWh per month, the electric bill will decrease by approximately \$8.45 per month over the six-month period December 2018 through May 2019, when the current FAC credit factor of \$.00087 is applied to their bill and the previous FAC recovery factor of \$0.00758 is eliminated from their bill.

16 Q. DID THE AVERAGE ENERGY COST VARY FROM EXPECTATIONS?

A. Yes, during the Accumulation Period, specifically in July and August 2018, cooler
 than normal weather prevailed. As such, the actual total energy cost per
 megawatt-hour was below the Company budget by approximately 8.83 percent.

20 Q. DO YOU EXPECT THE AVERAGE ENERGY COSTS ELIGIBLE FOR THE FAC TO BE

21 HIGHER OR LOWER THAN THE BASE DURING THE NEXT ACCUMULATION PERIOD

22 FROM MARCH 2018 THROUGH AUGUST 2018?

Based on the current budget, Empire expects the total energy costs eligible for 1 Α. 2 the FAC to be about 6.7% higher than the base. The period in question, September 2018 through February 2019, contains the winter months, so this 3 period has the potential for a higher average cost per megawatt-hour than what 4 5 would be expected for an annual average cost per megawatt-hour. The current budget, which assumes normal weather, anticipates average energy costs eligible 6 for the FAC to be higher than the current FAC base of \$24.15 per megawatt-hour 7 8 during the next Accumulation Period.

9 Q. DO YOU BELIEVE EMPIRE'S FUEL ADJUSTMENT CLAUSE IS REASONABLE AND 10 APPROPRIATE?

A. Yes. The design of the Commission's rule governing the FAC was the subject of much discussion and debate prior to being approved by the Commission. In addition, there was much discussion and debate concerning Empire's FAC tariff in Case No. ER-2008-0093, in which the Commission ultimately approved Empire's initial FAC tariff. Additional discussions have occurred in subsequent cases. Empire's FAC filing is being made in accordance with the Commission's rules governing the FAC and in accordance with the FAC tariff approved for Empire.

18Q.PLEASE DESCRIBE HOW EMPIRE IS PROPOSING TO COLLECT THE ENERGY COST19INCREASES EXPERIENCED DURING THE MARCH 2018-AUGUST 201820ACCUMULATION PERIOD?

A. The FAC rate schedule filed by Empire will collect the energy cost increase actually
 incurred during the Accumulation Period by applying the negative Fuel

Adjustment Rate or FAR of \$0.00085 for primary and \$0.00087 for secondary 1 2 service to the actual Missouri retail kWh sales that take place during the December 1, 2018 to May 31, 2019 Recovery Period. The proposed FARs were 3 calculated in accordance with Empire's authorized FAC tariff. I have attached to 4 my testimony, as Schedule LLF-1, an exemplar copy of one of Empire's approved 5 FAC tariff sheets. In addition to the tariff sheet, I have included as page 2 of 6 Schedule LLF-1 a monthly analysis of the energy costs and energy cost recovery 7 that has taken place during the Accumulation Period. Schedule LLF-1 contains the 8 basic information and FAC formula that Empire used to calculate the FARs that 9 have been included in the proposed revised FAC rate schedule sheet 17e. The 10 Empire FAC tariff and the formula included therein were approved by the 11 12 Commission in File No. ER-2016-0023.

13 Q. HOW WERE THE VARIOUS VALUES USED TO DETERMINE THE PROPOSED FARS 14 SHOWN ON SCHEDULE JMS-1 DEVELOPED?

The data upon which Empire based the values for each of the variables in the 15 Α. approved FAR formula are included on the schedule, and came from Empire's 16 books and records. Schedule LLF-1 contains all of the basic information that is 17 required to calculate the proposed change in the FAR. In addition, Empire has 18 filed the detailed information required by 4 CSR 240-3.161(7) (A) with this 19 testimony as Schedule LLF-2. Additional information about the true-up amount 20 was filed concurrently in a separate docket. Also, as required by 4 CSR 240-21 3.161(7) (B), the Company has separately provided to all parties of record in File 22

Nos. ER-2008-0093, ER-2010-0130, ER-2011-0004, ER-2012-0345, ER-2014-0351,
 and ER-2016-0023 with a set of these workpapers.

3 Q. IS EMPIRE IN COMPLIANCE WITH THE PROVISIONS OF THE COMMISSION'S FAC

4 RULE CONCERNING PERIODIC REPORTING AND SURVEILANCE?

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

11Q.IF FAC SHEET 17e IS APPROVED BY THE COMMISSION, WHAT SAFEGUARDS EXIST12TO ENSURE THE FAC REVENUE COLLECTED BY EMPIRE DOES NOT EXCEED THE13ACTUAL TOTAL ENERGY COST INCURRED BY EMPIRE DURING THE

14 ACCUMULATION PERIOD?

As mentioned earlier, Empire's FAC and the Commission's rules provide two 15 Α. mechanisms designed to limit the FAC amounts collected from customers to 16 Empire's actual, prudently-incurred energy costs. First, at the end of each 17 Recovery Period the Company is required to true-up the amounts collected from 18 customers through the FAR with the total energy costs that were actually incurred 19 during the Accumulation Period to which the FAR applies. In addition, Empire's 20 energy costs will be subjected to periodic Prudence Reviews to ensure that only 21 prudently-incurred energy costs are collected from customers through the FAC. 22

1 These two mechanisms serve as checks that ensure that Empire's Missouri 2 customers pay only the prudently-incurred, actual cost of energy used to provide 3 electric service in Missouri (less the 5% Empire absorbs or retains) – no more and 4 no less.

5

Q. WHAT ACTION IS EMPIRE REQUESTING FROM THE COMMISSION WITH RESPECT

6 TO THE FAC RATE SCHEDULE THAT THE COMPANY HAS FILED?

As provided by 4 CSR 240-20.090(4), Staff has thirty (30) days from the date the 7 Α. 8 FAC rate schedule is filed to conduct a review and to make a recommendation to the Commission as to whether the rate schedule complies with the Commission's 9 FAC rules, the requirements of Section 386.266, RSMo, and Empire's approved 10 FAC. The Commission has sixty (60) days from the date of Empire's filing to either 11 12 approve the rate schedule or to allow it to take effect by operation of law. 13 Empire believes its FAC filing satisfies all of the requirements of applicable statutes, the Commission's rules, and Empire's approved FAC. Empire requests, 14 following Staff's review, the Commission approve revised FAC sheet 17e to be 15 effective as of December 1, 2018, which is the first day of the Recovery Period 16 prescribed in Empire's FAC tariff. 17

18 Q. IS EMPIRE REQUESTING ANY OTHER CHANGES TO THE FAC TARIFF AT THIS 19 TIME?

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

- 21 Q. DOES THIS CONCLUDE YOUR TESTIMONY AT THIS TIME?
- 22 A. Yes, it does.

					SUBSTITUTE SCHEUDLE LLF-1 PAGE 1 of 2							
THE EMPIRE DISTRICT ELECTRIC COMPANY												
P.S.C. Mo. No.	5	Sec.	45th Revised Sheet No		Revised Sheet No. 17ac							
Canceling P.S.C. Mo. No.	5	Sec.	4	4th	Revised Sheet No. 17ac							

ALL TERRITORY For

FUEL & PURCHASE POWER ADJUSTMENT CLAUSE **RIDER FAC** For service on and after December 1, 2018

	Accumulation Period Ending		August 31, 2018
1	Total Energy Cost (TEC) = (FC + PP + E – OSSR - REC)		64,930,243
2	Net Base Energy Cost (B)	-	67,415,208
	2.1 Base Factor (BF)		0.02415
	2.2 Accumulation Period NSI (S _{AP})		2,791,520,000
3	(TEC-B)		(2,484,965)
4	Missouri Energy Ratio (J)	*	82.19%
5	(TEC - B) * J		(2,047,187)
6	Fuel Cost Recovery	*	95.00%
7	(TEC - B) * J * 0.95		(1,944,828)
8	True-Up Amount (T)	+	(1,224)
9	Prudence Adjustment Amount (P)	+	
10	Interest (I)	+	145,446
11	Fuel and Purchased Power Adjustment (FPA)	=	(1,800,606)
12	Forecasted Missouri NSI (S _{RP})	÷	2,214,363,961
13	Current Period Fuel Adjustment Rate (FAR)	=	(0.00081)
14	Current Period FAR _{PRIM} = FAR x VAF _{PRIM}		(0.00085)
15	Current Period FAR _{SEC} = FAR x VAF _{SEC}		(0.00087)
16	VAF _{PRIM} = 1.0464		1.0464
17	VAF _{SEC} = 1.0657		1.0657

The Empire District Electric Company Fuel Adjustment Clause Cost Adjustment Factor Calculation Aug-18

		Accumulation Period														
		_	Mar 18		Apr 18		May 18	_	Jun 18		Jul 18	 Aug 18	Prior	Period		Total
Generation	[FC]	\$	10,719,423.96	\$	9,827,973.53	\$	10,903,004.37	\$	11,999,075.12	\$	12,252,365.14	\$ 12,782,498.23			\$	68,484,340.35
Fuel - AQCS	[FC]	\$	135,619.05	\$	131,662.56	\$	73,890.82	\$	241,974.94	\$	184,499.97	\$ 250,748.22			\$	1,018,395.56
Native Load Cost	[PP]	\$	10,594,107.45	\$	10,847,951.67	\$	13,176,983.65	\$	15,982,571.01	\$	17,209,361.83	\$ 14,849,127.40			\$	82,660,103.01
Transmission Costs	[PP]	\$	521,142.07	\$	523,590.26	\$	522,116.55	\$	529,939.11		507,425.26	\$ 501,654.41			\$	3,105,867.66
Net of Emission Allow.	[E]	\$		\$	(10,500.00)	\$	-	\$	(11.16)	\$	-	\$ 			\$	(10,511.16)
EDE Sales	[OSSR]	\$	(13,126,519.75)	\$	(11,945,449.03)	\$	(14,293,787.04)	\$	(17,654,795.77)	\$	(17,751,156.10)	\$ (15,363,651.96)			\$	(90,135,359.65)
Renewable Energy Credit Revenues	[REC]	\$		\$	-	\$	(100,802.56)	\$	(62,870.96)	\$	(28,919.70)	\$ 			\$	(192,593.22)
Total Energy Cost	(TEC)	\$	8,843,772.78	\$	9,375,228.99	\$	10,281,405.79	\$	11,035,882.29	\$	12,373,576.40	\$ 13,020,376.30			\$	64,930,242.56
Net Base Energy Rate		\$	0.02415		0.02415		0.02415		0.02415		0.02415	0.02415				
NSI kwh			411,694,000		389,302,000		439,794,000		512,383,000		534,838,000	503,509,000				2,791,520,000
Base Energy Cost	(B)	\$	9,942,410.10	\$	9,401,643.30	\$	10,621,025.10	\$	12,374,049.45	\$	12,916,337.70	\$ 12,159,742.35			\$	67,415,208.00
TEC-B		\$	(1,098,637.32)	\$	(26,414.31)	\$	(339,619.31)	\$	(1,338,167.16)	\$	(542,761.30)	\$ 860,633.95			\$	(2,484,965.44)
Missouri Retail kwh Sales			319,302,051		302,222,258		335,237,644		394,999,626		414,345,138	387,522,870				2,153,629,587
Total System kwh Sales			386,340,797		365,830,557		411,666,996		480,745,240		503,056,028	472,613,718				2,620,253,336
Missouri Energy Ratio	(J)		0.8265		0.8261		0.8143		0.8216		0.8237	0.8200				0.8219
(TEC-B)*J			(908,023.74)		(21,820.86)		(276,552.01)		(1,099,438.14)		(447,072.48)	705,719.84				(2,047,187.39)
Fuel & PP Cost Recovery (Over)/Under {[(FC + PP + E - OSSR - REC - B) * J] * 0.95}		\$	(862,622.56)	\$	(20,729.82)	\$	(262,724.41)	\$	(1,044,466.23)	\$	(424,718.86)	\$ 670,433.85			\$	(1,944,828.03)
(Over)/Under Adjustment	(T)												\$	(1,224.03)	\$	(1,224.03)
Interest (Expense)/Income	(I)	\$	28,121.68	\$	30,442.55	\$	28,456.45	\$	25,141.16	\$	19,525.59	\$ 13,758.96			\$	145,446.39
Fuel & Purchased Power Adjustment {[(FC + PP + E - OSSR - REC - B) * J] * 0.95} + T + I + P		\$	(834,500.88)	\$	9,712.73	\$	(234,267.96)	\$	(1,019,325.07)	\$	(405,193.27)	\$ 684,192.81	\$	(1,224.03)	\$	(1,800,605.67)
			22.89		25.63		24.98		22.96		24.60	27.55				24.78
For Recovery Period																
Forecasted NSI kwh	а															2,672,328,000
Forecasted Missouri Retail kwh Sales	b															2,071,323,000
Forecasted Total System kwh Sales Forecasted Missouri Ratio	с															2,499,704,000 82.86%
Forecasted Missouri NSI kwh (S)=a*(b/c)	(S)													Ľ		2,214,363,961
Cost Adjustment Factor (FAR=FPA./S)	(FAR)													٢		-0.00081
FAR - Primary and above														Ε		-0.00085
Primary Expansion Factor	1.0464													г		-0.00087
FAR - Secondary Secondary Expansion Factor	1.0657													L		-0.00087

AFFIDAVIT OF LESLIE L. FOREST

STATE OF MISSOURI)) ss COUNTY OF JASPER)

On the <u>10th</u> day of October, 2018, before me appeared Leslie L. Forest, to me personally known, who, being by me first duly sworn, states that she is a Regulatory Analyist, in Rates and Regulatory Affairs 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.

Lestie

Subscribed and sworn to before me this <u>10th</u> day of October, 2018.

ANGELA M. CLOVEN Notary Public - Notary Seal State of Missouri Commissioned for Jasper County My Commission Expires: November 01, 2019 Commission Number: 15262659

Notary Public

My commission expires: