

Exhibit No.:
Issue(s): Rate Design
Witness: James C. Watkins
Type of Exhibit: Direct
Sponsoring Party: MoPSC Staff
Case No.: EO-96-14

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY OPERATIONS DIVISION

DIRECT TESTIMONY

OF

JAMES C. WATKINS

UNION ELECTRIC COMPANY

CASE NO. EO-96-14

Jefferson City, Missouri

February, 1999

Exhibit No. 19
Date 2-1-99 Case No. EO-96-14
Reporter TW

1 **Q. What is the purpose of your direct testimony in this case?**

2 A. The purpose of my direct testimony is to recommend changes to the
3 overall rate levels of Union Electric Company's (UE or Company) rate schedules
4 serving each customer class in order to implement the rate reduction in this case.

5 This recommendation is being made pursuant to Section 6 of the
6 Stipulation and Agreement approved by the Commission in Case No. EM-96-149:

7 Earnings monitoring in Case No. EO-96-14 will result in a general
8 change in rates charged and revenues collected after August 31,
9 1998. The change in revenues collected will be equal to the average
10 annual total revenues credited to customers during the three ARP
11 years ending June 30, 1998, adjusted to reflect normal weather. The
12 procedures to determine the annual credits for the three years
13 comprising the ARP are set forth in Attachment A appended hereto.
14 Any rate reduction shall be spread within and among revenue classes
15 on the basis of the Commission decision in Case No. EO-96-15,
16 which is the UE customer class cost of service and comprehensive
17 rate design docket created as a result of Case No. ER-95-411. In the
18 event that a Commission decision has not been reached in Case No.
19 EO-96-15, the parties will jointly or severally propose to the
20 Commission a basis or bases on which a rate reduction may be
21 spread on an interim basis within and among the classes pending
22 issuance of the Commission's decision in Case No. EO-96-15.
23 [emphasis added].
24

25 **Q. Has the Staff compared current revenue levels to the cost of serving**
26 **each class?**

27 A. Yes. On a class-by-class basis, the Staff has determined the amount by
28 which revenues differ from the cost of service and the percentage increase or decrease in
29 rate levels that would be required to adjust class revenues to exactly recover the cost of
30 serving each class on an overall revenue-neutral basis. The following results are based
31 on the customer class cost-of-service study filed by the Staff in Case No. EO-96-15 on
32 February 19, 1999.

	<u>RES</u>	<u>SGS</u>	<u>LGS</u>	<u>LPS</u>
REVENUE DEFICIENCY:	\$20,808,000	(\$20,226,000)	(\$15,919,000)	\$15,337,000

REQUIRED % INCREASE:	2.80%	(9.45%)	(2.82%)	10.33%
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Notes: The dollar amounts and percentages are shown as a *positive* number if an *increase* in rates would be required and as a *negative* number if a *decrease* in rates would be required.

RES is Residential Service

SGS is Small General Service

LGS is Large General Service and Small Primary Service

LPS is Large Primary Service and Interruptible Power Rate Service

A more detailed summary of the results of the Staff's customer class cost of service study is shown in Schedule 1. Also shown in Schedule 1 is that, on a combined basis, the Small General Service, Large General Service, and Small Primary Service rates are higher than cost of service by 4.65%.

Q. What is the purpose of a customer class cost-of-service study?

A. A customer class cost-of-service study is a tool for developing the above comparisons. The preparation of such a study is as much art as science and is intended to provide a reasonable basis for the comparison of revenues to costs. The result of the customer class cost-of-service study is one factor that should be considered in determining the appropriate rate design for a utility.

Q. What is your recommendation to the Commission regarding class revenue shifts?

A. As a matter of policy, I believe that the Commission should order that rate levels be adjusted to move class revenues closer to class cost of service as

1 determined by the Staff's study, after considering other relevant factors. In this
2 particular case, the rate reduction should be spread to the customer classes in a manner
3 that will not only lower the Company's overall rate level, but, also, move class revenues
4 closer to cost of service.

5 **Q. Are there other factors that should be considered by the Commission**
6 **in this case?**

7 A. In addition to the factors that would normally be considered in shifting
8 class revenue requirement responsibility (impact on customer's bills, effect on
9 economic development, etc.), the Commission should consider the relationship of this
10 case to Case No. EO-96-15, which was established to consider any rate design changes
11 that would shift revenues within or among customer classes and any adjustments that
12 needed to be made to class revenue requirements, before implementing the rate
13 reduction resulting from the First Experimental Alternative Regulation Plan and the
14 Stipulation and Agreement in Case No. EM-96-149, on an equal percentage basis. It is
15 important for rate stability that the Commission's decisions in Case No. EO-96-14 and
16 Case No. EM-96-149 do not result in rate changes that are reversed by the
17 Commission's decision in Case No. EO-96-15.

18 **Q. Do you have a specific recommendation to the Commission for**
19 **implementing the rate reduction resulting from the Stipulation and Agreement in**
20 **Case No. EM-96-149 and Case No. EO-96-14?**

21 A. My recommendation is conditioned on the magnitude of the overall rate
22 reduction ordered by the Commission.

23 If the overall rate reduction is not more than \$25,000,000, I recommend

1 that the entire rate reduction be applied to the Small General Service, Large General
2 Service, and Small Primary Service rate schedules by applying an equal percentage
3 decrease to every rate and charge on each rate schedule.

4 If the overall rate reduction is more than \$25,000,000, I recommend that
5 the first \$25,000,000 of the rate reduction be applied to the Small General Service,
6 Large General Service, and Small Primary Service rate schedules by applying an equal
7 percentage decrease to every rate and charge on each rate schedule. The remainder of
8 the overall rate reduction should be applied to the rate schedules serving all customer
9 classes, excluding the Lighting class, i.e., Residential Service, Small General Service,
10 Large General Service, Small Primary Service, Large Primary Service, and the
11 Interruptible Power Rate by applying an equal percentage decrease to every rate and
12 charge on each rate schedule. The effect on the relationship between costs and revenues
13 on a class-by-class basis of implementing this recommendation for a \$25,000,000, or
14 greater, rate reduction is shown in Schedule 2. Also shown in Schedule 2 is that, on a
15 combined basis, the Small General Service, Large General Service, and Small Primary
16 Service rates have been brought to within 3% of cost of service.

17 **Q. Is there a possibility that adopting the Staff's recommendation will**
18 **result in rate changes that would be reversed by the Commission's decision in Case**
19 **No. EO-96-15?**

20 **A.** Yes, there is a possibility. However, if the overall rate reduction is
21 implemented on the basis of an "interim" rate design prior to the implementation of the
22 rate design changes ordered in Case No. EO-96-15, the Staff recommends, and has
23 recommended in Case No. EO-96-15, that no further shifts to class revenue

1 requirements be implemented in Case No. EO-96-15.

2 In addition, the Staff's recommendation is consistent with the results of
3 the cost of service studies filed by the other parties in Case No. EO-96-15 for rate
4 reductions of no more than \$25,000,000. It is only in the situation that the rate
5 reduction exceeds \$25,000,000 that the studies differ on whether or not the Residential
6 and/or Large Power classes should share in the rate reduction in order to move toward
7 cost of service.

8 I should note that because the study filed by the Office of the Public
9 Counsel combines customers served under the Small Primary Service rate schedule with
10 the customers served under the Large Primary Service and the Interruptible Power Rate
11 rate schedules into a single "Primary" customer class, it is not clear whether or not that
12 study supports the rate reduction for the Small Primary Service customers indicated by
13 all of the other studies. All of the studies, including the study filed by the Office of the
14 Public Counsel, indicate that the Small General Service and Large General Service rates
15 are too high.

16 **Q. Why shouldn't there be different class revenue requirements on a**
17 **permanent basis than on an interim basis?**

18 A. What I am recommending is that there should not be multiple rate
19 changes within a short period of time; one that first lowers a customer's rate, followed
20 shortly thereafter by another rate change that raises it, perhaps higher than it was before.
21 It would be better in that situation to have only one change in the rate level for each
22 customer class that incorporates both the rate increase or decrease resulting from the
23 shift in class revenue requirements and the rate decrease due to the overall rate

1 reduction, or wait until the end of the Second Experimental Alternative Regulation Plan
2 to implement additional revenue shifts.

3 **Q. Why haven't you shown the effect on the relationship between costs**
4 **and revenues on a class-by-class basis of implementing a rate reduction of**
5 **something less than \$25,000,000?**

6 A. The relationship between costs and revenues remains constant for rate
7 reductions in excess of \$25,000,000 because the additional rate reduction would be
8 spread to all classes on an equal percentage basis. For rate reductions of less than
9 \$25,000,000 the resulting relationship between costs and revenues will depend on the
10 exact amount of the rate reduction, but the result will be somewhere between the result
11 shown for no reduction (shown on Schedule 1) and the result for a \$25,000,000
12 reduction (shown on Schedule 2).

13 **Q. Does this conclude your prefiled direct testimony?**

14 A. Yes.

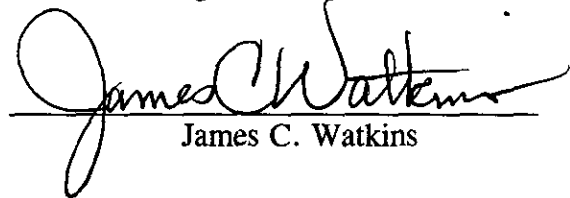
BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the matter of the Monitoring of the)
Experimental Alternative Regulation Plan) Case No. EO-96-14
of Union Electric Company.)

AFFIDAVIT OF JAMES C. WATKINS

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

James C. Watkins, of lawful age, on his oath states: that he has participated in the preparation of the foregoing written testimony in question and answer form, consisting of 7 pages of testimony to be presented in the above case, that the answers in the attached written testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true to the best of his knowledge and belief.


James C. Watkins

Subscribed and sworn to before me this 23rd day of February, 1999.

Joyce C. Neuner
Notary Public, State of Missouri
County of Osage
My Commission Exp. 06/18/2001


Notary Public

My commission expires _____

**STAFF CUSTOMER CLASS COST-OF-SERVICE STUDY
UNION ELECTRIC COMPANY**

Case No. EO-96-15

COSTS BY FUNCTIONAL CATEGORY							Combined SGS, LGS & SPS
			RES	SGS	LGS & SPS	LPS	TOTAL
PRODUCTION	CAPACITY		\$255,292	\$71,129	\$224,707	\$70,638	\$621,767
PRODUCTION	ENERGY		\$209,614	\$62,131	\$208,782	\$69,181	\$549,708
TRANSMISSION	CAPACITY		\$22,648	\$6,275	\$19,720	\$6,172	\$54,815
DISTRIBUTION	SUBSTATIONS	DEMAND	\$38,420	\$9,795	\$22,761	\$5,169	\$76,144
							\$0
DISTRIBUTION	POLES AND CONDUCTORS	CUSTOMER	\$40,192	\$4,671	\$324	\$2	\$45,189
DISTRIBUTION	POLES AND CONDUCTORS	PRIMARY DEMAND	\$77,353	\$19,721	\$45,825	\$10,406	\$153,304
DISTRIBUTION	POLES AND CONDUCTORS	SECONDARY DEMAND	\$23,099	\$6,015	\$8,664	\$0	\$37,777
							\$0
DISTRIBUTION	TRANSFORMERS	CUSTOMER	\$16,921	\$1,967	\$126	\$0	\$19,014
DISTRIBUTION	TRANSFORMERS	DEMAND	\$8,146	\$2,121	\$3,055	\$0	\$13,323
							\$0
DISTRIBUTION	INSTALLATIONS		\$0	\$0	\$0	\$3,444	\$3,444
DISTRIBUTION	SERVICES	CUSTOMER	\$9,980	\$1,160	\$74	\$0	\$11,215
DISTRIBUTION	SERVICES	DEMAND	\$12,782	\$2,569	\$3,073	\$0	\$18,424
DISTRIBUTION	METERS		\$13,867	\$3,392	\$1,152	\$810	\$19,222
							\$0
	METER READING		\$13,948	\$2,418	\$3,450	\$20	\$19,835
	CUSTOMER SERVICE, SALES, COLLECTION, ETC.		\$24,670	\$4,276	\$15,269	\$88	\$44,303
	INTEREST ON CUSTOMER SURETY DEPOSITS		\$13,231	\$758	\$426	\$0	\$14,415
	EPRI		\$1,983	\$586	\$1,894	\$617	\$5,080
	ASSIGNED RESIDENTIAL		\$74	\$0	\$0	\$0	\$74
	OVERALL RATE REDUCTION		0	0	0	0	0
	TOTAL COST OF SERVICE		\$782,220	\$198,983	\$559,304	\$166,546	\$1,707,054
							\$758,287
	REVENUES						
	FIRM RATE REVENUE		\$742,338	\$214,090	\$563,980	\$148,434	\$1,668,841
							\$778,070
	NET LIGHTING RATE REVENUE		\$10,758	\$2,737	\$7,692	\$2,291	\$23,478
	INTERRUPTIBLE CREDITS		(\$1,307)	(\$332)	(\$934)	(\$278)	(\$2,852)
	OTHER REVENUE - LIGHTING CLASS		\$211	\$54	\$151	\$45	\$461
	OTHER REVENUE - STUDIED CLASSES		\$9,412	\$2,661	\$4,335	\$718	\$17,125
							\$6,995
	TOTAL REVENUE		\$761,412	\$219,209	\$575,223	\$151,209	\$1,707,054
							\$794,432
	REVENUE SHIFTS		\$0	\$0	\$0	\$0	\$0
	% CHANGE FROM CURRENT RATES		0.00%	0.00%	0.00%	0.00%	0.00%
	REVENUE DEFICIENCY		\$20,808	(\$20,226)	(\$15,919)	\$15,337	(\$0)
							(\$36,145)
	% INCREASE (DECREASE) IN RATES REQUIRED TO GENERATE REVENUES EQUAL TO COST OF SERVICE		2.80%	(9.45%)	(2.82%)	10.33%	(0.00%)
							(4.65%)

STAFF CUSTOMER CLASS COST-OF-SERVICE STUDY UNION ELECTRIC COMPANY Case No. EO-96-15								Combined
COSTS BY FUNCTIONAL CATEGORY			RES	SGS	LGS & SPS	LPS	TOTAL	SGS, LGS & SPS
PRODUCTION	CAPACITY		\$255,292	\$71,129	\$224,707	\$70,638	\$621,767	\$295,837
PRODUCTION	ENERGY		\$209,614	\$62,131	\$208,782	\$69,181	\$549,708	\$270,913
TRANSMISSION	CAPACITY		\$22,648	\$6,275	\$19,720	\$6,172	\$54,815	\$25,996
DISTRIBUTION	SUBSTATIONS	DEMAND	\$38,420	\$9,795	\$22,761	\$5,169	\$76,144	\$32,556
								\$0
DISTRIBUTION	POLES AND CONDUCTORS	CUSTOMER	\$40,192	\$4,671	\$324	\$2	\$45,189	\$4,996
DISTRIBUTION	POLES AND CONDUCTORS	PRIMARY DEMAND	\$77,353	\$19,721	\$45,825	\$10,406	\$153,304	\$65,546
DISTRIBUTION	POLES AND CONDUCTORS	SECONDARY DEMAND	\$23,099	\$6,015	\$8,664	\$0	\$37,777	\$14,679
								\$0
DISTRIBUTION	TRANSFORMERS	CUSTOMER	\$16,921	\$1,967	\$126	\$0	\$19,014	\$2,093
DISTRIBUTION	TRANSFORMERS	DEMAND	\$8,146	\$2,121	\$3,055	\$0	\$13,323	\$5,177
								\$0
DISTRIBUTION	INSTALLATIONS		\$0	\$0	\$0	\$3,444	\$3,444	\$0
DISTRIBUTION	SERVICES	CUSTOMER	\$9,980	\$1,160	\$74	\$0	\$11,215	\$1,234
DISTRIBUTION	SERVICES	DEMAND	\$12,782	\$2,569	\$3,073	\$0	\$18,424	\$5,642
DISTRIBUTION	METERS		\$13,867	\$3,392	\$1,152	\$810	\$19,222	\$4,544
								\$0
	METER READING		\$13,948	\$2,418	\$3,450	\$20	\$19,835	\$5,867
	CUSTOMER SERVICE, SALES, COLLECTION, ETC.		\$24,670	\$4,276	\$15,269	\$88	\$44,303	\$19,546
	INTEREST ON CUSTOMER SURETY DEPOSITS		\$13,231	\$758	\$426	\$0	\$14,415	\$1,184
	EPRI		\$1,983	\$586	\$1,894	\$617	\$5,080	\$2,479
	ASSIGNED RESIDENTIAL		\$74	\$0	\$0	\$0	\$74	\$0
	OVERALL RATE REDUCTION		-11,456	-2,914	-8,191	-2,439	-25,000	-11,105
	TOTAL COST OF SERVICE		\$770,765	\$196,069	\$551,113	\$164,107	\$1,682,054	\$747,182
	REVENUES							
	FIRM RATE REVENUE		\$742,338	\$214,090	\$563,980	\$148,434	\$1,668,841	\$778,070
	NET LIGHTING RATE REVENUE		\$10,758	\$2,737	\$7,692	\$2,291	\$23,478	\$10,429
	INTERRUPTIBLE CREDITS		(\$1,307)	(\$332)	(\$934)	(\$278)	(\$2,852)	(\$1,267)
	OTHER REVENUE - LIGHTING CLASS		\$211	\$54	\$151	\$45	\$461	\$205
	OTHER REVENUE - STUDIED CLASSES		\$9,412	\$2,661	\$4,335	\$718	\$17,125	\$6,995
	TOTAL REVENUE		\$761,412	\$219,209	\$575,223	\$151,209	\$1,707,054	\$794,432
	REVENUE SHIFTS		\$0	(\$6,879)	(\$18,121)	\$0	(\$25,000)	(\$25,000)
	% CHANGE FROM CURRENT RATES		0.00%	-3.21%	-3.21%	0.00%	-1.50%	-3.21%
	REVENUE DEFICIENCY		\$9,352	(\$16,261)	(\$5,989)	\$12,898	(\$0)	(\$22,250)
	% INCREASE (DECREASE) IN RATES REQUIRED TO GENERATE REVENUES EQUAL TO COST OF SERVICE		1.26%	(7.85%)	(1.10%)	8.69%	(0.00%)	(2.95%)