

Exhibit No.:
Witness: Richard J. Kovach
Type of Exhibit: Rebuttal Testimony
Sponsoring Party: Union Electric Company
d/b/a AmerenUE
Case No.: EO-2000-580

FILED³

SEP 18 2000

Missouri Public
Service Commission

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. EO-2000-580

REBUTTAL TESTIMONY

OF

RICHARD J. KOVACH

St. Louis, Missouri
September 18, 2000

MISSOURI PUBLIC SERVICE COMMISSION

STATE OF MISSOURI

In the Matter of an Investigation)
Into an Alternative Rate Option for) Case No. EO-2000-580
Interruptible Customers of Union)
Electric Company d/b/a AmerenUE)

AFFIDAVIT OF RICHARD J. KOVACH

STATE OF MISSOURI)
) SS.
CITY OF ST. LOUIS)

Richard J. Kovach, being first duly sworn on his oath, states:

1. My name is Richard J. Kovach I work in the City of St. Louis, Missouri, and I am the Manager of the Rate Engineering Department of Ameren Services Company.

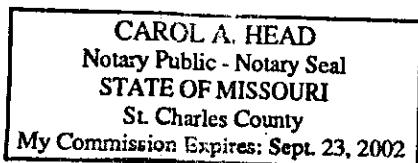
2. Attached hereto and made a part hereof for all purposes is my Rebuttal Testimony consisting of pages 1 through 24, and including Schedules 1 through 6, all of which testimony has been prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. GR-2000-580 on behalf of Union Electric Company.

3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct.

Richard J. Kovach

Subscribed and sworn to before me this 15th day of September 2000.

Carol A. Head
Notary Public



1 **REBUTTAL TESTIMONY**

2 **OF**

3 **RICHARD J. KOVACH**

4 **UNION ELECTRIC COMPANY**

5 **d/b/a AmerenUE**

6 **CASE NO. EO-2000-580**

7
8 **Q. Please state your name and business address.**

9 A. My name is Richard J. Kovach. My business address is 1901
10 Chouteau Avenue, St. Louis, Missouri, 63103.

11 **Q. Please state your occupation and by whom you are employed.**

12 A. I am the Manager of the Rate Engineering Department at Ameren
13 Services Company.

14 **Q. Please describe Ameren Services Company.**

15 A. Ameren Services is a subsidiary of Ameren Corporation which
16 provides various administrative and technical support services for its parent and
17 other subsidiaries including Union Electric Company, doing business as
18 AmerenUE.

19 **Q. Please describe your educational background, work**
20 **experience, current duties, responsibilities and professional affiliations.**

21 A. This information is summarized in Schedule 1 of my testimony.

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

1 A. My testimony in this case will respond to the Direct Testimony of
2 Mr. Maurice Brubaker and to the three cement company representatives (MEG,
3 MEG Interruptibles, or cement companies) that also submitted Direct Testimony
4 in this case. I will first comment on Mr. Brubaker's testimony and then on the
5 MEG witnesses as a group, due to the general similarity of the testimony of the
6 latter MEG witnesses. Where specific comments are warranted regarding the
7 testimony of any MEG witness, I will indicate so in my testimony.

8 **Q. Please describe the genesis of this case.**

9 A. Schedule 2 of my testimony is a reproduction of Paragraph (4.) of
10 the Stipulation and Agreement among the Company and all other parties to the
11 Company's Cost of Service/Rate Design Case (Case No. EO-96-15). One or
12 more of the MEG Interruptibles participating in this case were also represented
13 in Case No. EO-96-15. The last two paragraphs of this Schedule 2 best describe
14 the events which resulted in the establishment of this case.

15 **Q. What reasons were given by the MEG Interruptibles, in their**
16 **application to the Commission, for initiating this current docket?**

17 A. Paragraph (1.) of the MEG application to the Commission in
18 Case No. EO-96-15, dated March 17, 2000, correctly states that, following a
19 series of discussions regarding this matter, MEG and the Company could not
20 reach agreement on an alternative rate option for the Company's former
21 Interruptible Rate 10(M) customers. Paragraph (2.) of the MEG application

1 refers to two factors in support of the Commission considering the MEG request
2 for an alternative interruptible rate option:

3 (1) the loss of an annual MEG rate differential (discount) of \$2.5 million

4 (2) an adverse effect on the Company's system reliability which may
5 occur as a result of the elimination of the Company's prior
6 Interruptible 10(M) Rate.

7 **Q. Does the Company consider these two factors raised by MEG**
8 **to be valid reasons for proceeding with this docket?**

9 Q. No. The \$2.5 million rate differential in the MEG application
10 (stated as \$2.4 million in Mr. Brubaker's testimony) was derived from a direct
11 comparison between the eliminated 10(M) Interruptible Rate and the Company's
12 Large Primary Service Rate 11(M). The MEG customers currently receive
13 service under the latter 11(M) Rate. This comparison of 10(M) and 11(M) Rates
14 does not account for, or ignores, three benefits to the MEG customers which
15 were gained as a part of the Stipulation and Agreement in Case No. EO-96-15:

16 (1) The MEG customers achieved other rate benefits as a part of the
17 negotiation process in the latter case. Had they not gained other
18 benefits as a part of that settlement, they obviously would not have
19 accepted the settlement in which they agreed to the elimination of the
20 former 10(M) Interruptible Rate.

21 (2) The MEG customers currently have available, and are in fact
22 participating in, another curtailment option (Rider L – Voluntary

1 Curtailment Rider) which is currently offered by the Company. To
2 the extent of the MEG participation in one of the Company's current
3 voluntary curtailment tariffs, the above referenced rate differential
4 will also be all or partially offset.

5 **(3)** Curtailment by the MEG customers is no longer mandatory, as it was
6 under the previously eliminated 10(M) Interruptible Rate. Thus, the
7 MEG customers currently realize additional economic and
8 operational benefits resulting from having increased flexibility in the
9 control of their plant operations and production schedules.

10 **Q. Regarding the second point made in MEG's application for**
11 **this docket, has the Company's system reliability been adversely affected by**
12 **the elimination of the former 10(M) Interruptible Rate?**

13 A. No. The 10(M) Rate was eliminated as of June 1, 2000, and the
14 Company's power supply to the firm customers within its service area has not,
15 to my knowledge, been adversely affected. As the Company has already passed
16 the time of the year when its annual system peak loads are normally established,
17 this assertion made by MEG in March 2000 has no merit.

18 **Q. Did the Company carry out its obligations, as outlined in the**
19 **last paragraph of Schedule 2?**

20 A. Yes, it did, as indicated on Page 2 of Mr. Brubaker's testimony.
21 Commencing as early as the fall of 1999, the Company and MEG
22 representatives engaged in numerous discussions and exchanges of information

1 regarding the various attributes of an alternative interruptible rate which would
2 be acceptable to each of the parties in this case. The inability of the parties to
3 reach agreement on such a rate resulted in the cement companies exercising their
4 Stipulation and Agreement option to request the Commission to initiate a docket
5 for consideration of an additional alternative rate option for interruptible
6 customers.

7 **Q. Did the Company or Commission Staff oppose this request of**
8 **the cement companies for the opening of this docket, on any procedural**
9 **grounds?**

10 A. No, as by the terms of the Stipulation and Agreement, neither the
11 Company nor the Staff could do so.

12 **Q. Even though the Company has previously agreed not to**
13 **object to this docket on procedural grounds, does it believe that such a**
14 **docket is necessary for it to provide interruptible or curtailment service**
15 **with equitable and reasonable tariff provisions?**

16 A. We do not believe this docket is necessary to provide customers
17 with equitable and reasonable interruptible or curtailment service, as the
18 Company is currently providing two forms of voluntary curtailment service
19 under tariffs (Rider L and Rider M) which have been approved by the
20 Commission. Rider L is totally voluntary, paying customers a Company offered
21 price for any participating customer's curtailed kilowatthours (KWH) or
22 megawatthours (MWH). Rider M is also voluntary and pays participating

1 customers a monthly curtailment option fee plus a price per (KWH). These fees
2 and KWH prices provided for under Rider M are agreed upon in advance by the
3 Company and the customer, based upon various customer selected curtailment
4 options contracted for with the Company, and are applicable during the summer
5 billing months of June – September.

6 **Q. How have these two voluntary curtailment tariffs been**
7 **received by the customers to which they have been offered by the**
8 **Company?**

9 A. These offerings have been enthusiastically received by non-
10 residential customers in both our Missouri and Illinois service areas.
11 Approximately 200 customers have enrolled in one or both of these programs,
12 including the three cement companies that have initiated this case. Later in my
13 testimony, I will provide a comparison between these existing voluntary
14 curtailment tariffs currently in effect in Missouri and Mr. Brubaker's proposal.

15 **Q. Turning now to pages 2-3 of Mr. Brubaker's testimony, did**
16 **the MEG customers offer a proposal to the Company which would modify**
17 **the eliminated 10(M) Rate in an attempt to meet some of the Company's**
18 **objections to that rate?**

19 A. Yes. Essentially the same proposal contained as Schedule 1 of
20 Mr. Brubaker's testimony in this case was presented to the Company in the Rate
21 Design Docket, Case No. EO-96-15, in early 1999 and provided to the Company

1 for consideration again in late 1999. It was also discussed again on one or more
2 occasions with MEG representatives during the first half of 2000.

3 **Q. On page 3 of his testimony, Mr. Brubaker indicates that the**
4 **Company was requested to provide a specific critique of the MEG proposal**
5 **on several occasions and did not do so. Is this a fair statement of the events**
6 **which actually took place during the time of these discussions?**

7 A. The specifics of the Company's critique of this proposal were
8 provided verbally to Mr. Brubaker and other MEG representatives on more than
9 one occasion. As a result of such discussions, no written critique was necessary,
10 nor do any of the Company representatives involved in this process recall being
11 asked to provide any additional information.

12 **Q. Mr. Brubaker also testifies that the Company indicated it was**
13 **no longer interested in the eliminated 10(M) Rate form of interruptible**
14 **tariff. Did MEG nevertheless propose a slightly modified version of this**
15 **tariff to the Commission as an interim tariff, and also include this same**
16 **proposal in Schedule 1 of Mr. Brubaker's testimony in this proceeding?**

17 A. Yes.

18 **Q. How would you describe Mr. Brubaker's proposal?**

19 A. The proposal in Schedule 1 of Mr. Brubaker's testimony is only a
20 slightly modified version of the eliminated 10(M) Rate. It preserves the
21 majority of the benefits of the 10(M) Rate for MEG, but provides little added
22 value and flexibility for the Company. Schedule 3 of my testimony is a table

1 which makes a comparison between the provisions of the eliminated 10(M) Rate
2 and the modifications for that rate which are being proposed by Mr. Brubaker in
3 his Schedule 1. This comparison summarizes the similarities between these
4 rates, indicating some slight modifications in flexibility and pricing to the
5 Company, but at the sacrifice of continuing to maintain many of the same
6 restrictive provisions and administrative burdens which the Company indicated
7 in the Rate Design Case, and subsequently to the MEG representatives, that it
8 wanted to eliminate and improve upon in the form of newly designed tariffs.
9 The Company prefers and believes that a voluntary, more flexible, market based
10 approach toward meeting its peak load requirements is of greater overall benefit
11 to its entire customer base, which its current Rider L and Rider M tariffs
12 achieve, while the eliminated 10(M) tariff did not.

13 **Q. On page 3 of his testimony Mr. Brubaker states why the**
14 **Company's current Rider M is not an adequate substitute for the**
15 **eliminated 10(M) Interruptible Rate. Please comment.**

16 A. No specific critique of the Company's Rider M was provided to
17 the Company by the MEG representatives. As Mr. Brubaker's testimony
18 indicates, the MEG merely informed the Company that "the proposed Rider M
19 was not suitable for use by them." Data request responses from the MEG
20 companies which would have provided more information as to tariff suitability
21 were either not received within the required 20-day time frame, or provided no
22 useful information in this regard. Data request responses from Mr. Brubaker

1 did, however, clarify that the 60,000 kilowatts of interruptible load allegedly
2 offered by the MEG customers is incorrect and should actually be 40,000
3 kilowatts. The latter level of interruptible kilowatts should also be corrected on
4 page 13 of Mr. Brubaker's testimony.

5 **Q. Did the Company actually lose access to 40,000 kilowatts of**
6 **interruptible load during this past summer as inferred on pages 3 and 13 of**
7 **Mr. Brubaker's testimony?**

8 A. No. As I indicated earlier, the Company had approximately 200
9 customers enroll for voluntary curtailment service under its current Rider L,
10 which requires a minimum curtailable load of 500 kilowatts. Even if all of these
11 customers had only this minimum curtailable load to offer, these customers have
12 a potential of at least 100,000 kilowatts (200 x 500) of curtailable load, and
13 many of these customers enrolled in Rider L for substantially more than this
14 minimum. The fact that the MEG customers also enrolled in Rider L is also
15 indicative that the Company did not lose this total amount of 40,000 kilowatts of
16 interruptible load as a result of the elimination of the 10(M) Rate.

17 **Q. Did any of the Company's customers enroll in Rider M for**
18 **the summer of 2000?**

19 A. Yes. The Company had five customers sign up for service under
20 this Rider for the past summer, finding this Rider suitable for their operations,
21 although the MEG customers did not find it suitable for their operations.

1 **Q. Turning to page 4 of Mr. Brubaker's testimony, where he**
2 **begins explaining his proposed modifications of the Company's eliminated**
3 **10(M) tariff, what initial comments should be made in order to clarify the**
4 **Company's position regarding your rebuttal comments?**

5 A. As indicated earlier in this testimony, the MEG modified 10(M)
6 proposal in Mr. Brubaker's Schedule 1 has been rejected repeatedly by the
7 Company since the settlement of the Rate Design Case (EO-96-15) some
8 eighteen months ago. The Company is not reconsidering this proposal for any
9 future application at this time. As this rate has been eliminated and deleted from
10 the Company's current Missouri electric tariffs, in actuality, all such comments
11 by both Mr. Brubaker and the responses of the Company are moot at this time.
12 The record in this case should be clear that the Company's comments in this
13 testimony are offered solely as a reaction to the MEG Schedule 1 concepts as
14 they pertain to the previous 10(M) Interruptible Rate that has been eliminated.
15 Such comments should not be construed in any manner as an acceptance or offer
16 to MEG by the Company for any proposal to reinstitute any type or form of the
17 eliminated 10(M) Rate at this time.

18 **Q. On pages 4 and 5 of his testimony Mr. Brubaker discusses**
19 **point number 1 of his Schedule 1. What is the essence of this point?**

20 A. Point number 1 proposes that the Company not be allowed to
21 interrupt service when it anticipates approaching a system peak. He indicates
22 the reason for this exclusion is that approaching a system peak is not always

1 indicative of the reliability purposes for which interruptible rates have been
2 traditionally used. Perhaps Mr. Brubaker's reference to "traditional" views of
3 interruptible rates points out a part of the problem between the parties in this
4 case, as what was once considered as "traditional" is changing. Everyone
5 currently involved in the electric utility business is quite aware of the high
6 correlation between system reliability (low reserve levels) and system peaks, and
7 it is highly likely and may well be that when historic curtailments occurred due
8 to low reserves, the Company was also approaching an annual system peak.
9 However, with the presence of today's wholesale power markets, system
10 reliability can nearly always be met at some price level, by a combination of
11 market purchases and customer curtailments, which the Company prefers to
12 keep on a voluntary basis. Mr. Brubaker's reliability comments illustrate the
13 restrictiveness of the eliminated 10(M) Rate, which his first concept point would
14 make even more restrictive, and would likely cause the Company to meet the
15 requirements of its firm customers at a higher overall cost than it is doing so
16 today under its Rider L and Rider M.

17 **Q. Page 5 of Mr. Brubaker's testimony skips from discussing his**
18 **first point on Schedule 1 to his third and fourth points. Please comment on**
19 **the second point of his Schedule 1.**

20 A. Mr. Brubaker's second point proposes to maintain the same
21 structure and price relationship to firm service as that which was contained in
22 the eliminated 10(M) Rate. This proposal includes maintaining an average

1 monthly interruptible billing demand credit of approximately \$ 5.00 per
2 kilowatt, which would result in a reinstitution of the \$ 2.4 million annual
3 discount which the MEG customers gave up in the settlement of the Rate Design
4 Case by agreeing to the elimination of the 10(M) Rate.

5 **Q. What was the level of the cost per KWH, to the Company**
6 **(discount to the MEG customers), for curtailments under the eliminated**
7 **10(M) Rate, based upon its prior discount rate of \$ 5.00 per kilowatt during**
8 **each month of the year?**

9 A. Considering, for example, the 10,000 kilowatt minimum monthly
10 10(M) Rate demand, priced at \$ 5.00 per month, this discount amounts to
11 \$ 50,000 per month, or \$ 600,000 per year for a curtailment of 10,000 kilowatts.
12 The former 10(M) curtailments were for approximately ten (10) hours per day
13 and occurred an average of about six (6) times per year, for a total of sixty (60)
14 curtailment hours per year. The total KWH curtailed for each 10,000 kilowatts
15 interrupted, thus, averages 600,000 KWH per year (60 x 10,000). At the annual
16 cost of \$ 600,000 and annual curtailments of 600,000 KWH, such curtailments
17 were formerly achieved by the Company, under the eliminated 10(M) Rate, at a
18 cost of \$ 1.00 per KWH, or \$1,000 per MWH. Such costs also represent the
19 level of the per KWH or MWH discount being provided the MEG customers
20 under the provisions of the eliminated 10(M) Rate.

21 **Q. Considering this cost to the Company of \$ 1.00 per KWH for**
22 **interrupted KWH under the eliminated 10(M) Rate, and the modified**

1 **10(M) Rate which Mr. Brubaker is proposing in his Schedule 1, has the**
2 **Company been able to meet its recent system peaks at costs substantially**
3 **less than the level of one dollar (\$ 1.00) per kilowatthour (KWH) previously**
4 **provided to the MEG customers?**

5 A. Yes. In fact the Company was able to meet its peak loads this
6 past summer at costs ranging from only 10 – 14 cents per KWH, as opposed to
7 the dollar (\$ 1.00) per KWH cost which is inherent in both the eliminated 10(M)
8 Rate and Mr. Brubaker's Schedule 1 proposal. During the summer of 1999,
9 such costs ranged from 10 cents to \$ 1.20 per KWH, but averaged 39 cents per
10 KWH, which is still substantially less than what the cost of curtailment would be
11 to the Company under the eliminated 10(M) Rate or under Mr. Brubaker's
12 proposal.

13 **Q. On pages 5 – 7 of his testimony Mr. Brubaker explains points**
14 **3 and 4 of his Schedule 1, which propose to give the Company more latitude**
15 **to interrupt customers on the eliminated 10(M) Rate. Please comment.**

16 A. While these points do appear to provide some additional latitude
17 than the Company possessed under the provisions of the eliminated 10(M) Rate,
18 the sum total of these proposals can generally be classified as "too little and too
19 late" and "administratively burdensome." In considering these proposals, it
20 must be kept in mind that the starting point for all of these points is the retention
21 (Brubaker point number 2.) of the payment (in the form of rate discounts) of
22 \$1.00 per KWH to the MEG customers. When this point is considered, a major

1 movement in additional "latitude" would be required for the Company to reduce
2 its costs of meeting peak loads to anywhere near the range of the market costs it
3 has been experiencing, as a part of its voluntary curtailments under Rider L and
4 Rider M. I would also add that the ease of application and voluntary nature of
5 these Riders, currently working for about 200 customers, are absent the
6 additional administrative burdens suggested by the magnitude of the details
7 associated with the concepts in Mr. Brubaker's Schedule 1, which would apply
8 to only the three MGE customers.

9 **Q. On pages 7 – 10 of his testimony Mr. Brubaker discusses**
10 **customer options, various pricing and compensation provisions, penalty**
11 **provisions and Company record keeping requirements, which relate to**
12 **points 3 – 7 in his Schedule 1. Please comment.**

13 A. In general, my response to these additional comments of Mr.
14 Brubaker's is the same as that contained in my last answer. Virtually all of the
15 provisions he is offering in Schedule 1, which would apply to the eliminated
16 10(M) Rate for only the three MEG customers, have been addressed in some
17 form by the Company in its current tariffs, under which voluntary curtailment
18 service is being offered to the 200 customers enrolled in Rider L and Rider M.

19 **Q. On pages 10 and 11 of his testimony Mr. Brubaker provides**
20 **some generic comments regarding relationships between firm and**
21 **interruptible rates and the difference in the demand charge of such rates.**
22 **Do you agree with all of these comments?**

1 A. No. On page 10 Mr. Brubaker implies that an interruptible
2 demand charge of 50% of the demand charge for firm service is a typical
3 interruptible rate structure. I don't agree that such a relationship is necessarily
4 typical as the 50% discount in the eliminated 10(M) Rate was by far the largest
5 discount given by any utility in the State of Missouri. Page 11 of Mr.
6 Brubaker's testimony does, however, confirm my earlier use of the eliminated
7 10(M) Rate monthly discount being approximately \$ 5.00 per kilowatt, or
8 \$60.00 per kilowatt annually.

9 **Q. Page 11 of Mr. Brubaker's testimony uses the cost of a**
10 **combustion turbine peaking unit in an attempt to justify the continuation of**
11 **the \$ 60.00 per kilowatt annual interruptible demand discount. Do you**
12 **agree with the conclusions reached by this analogy?**

13 A. No. While Mr. Brubaker's calculations may reflect the
14 traditional manner of calculating the cost of combustion turbine capacity, the
15 value of such capacity can only be related to the hourly market cost (cents per
16 KWH or \$ per MWH) that the utility will either incur to continue to serve load
17 or avoid by curtailing load during peak load periods. While Mr. Brubaker's
18 response to Data Request MB-7 indicated the Company as the source of the
19 \$400 per kilowatt combustion turbine installation cost, such equipment will be
20 used by an affiliate in an attempt to capture the benefits of wholesale market
21 prices on a year in and year out basis in order to support its investment. Thus,
22 with the advent of the availability of the deregulated wholesale power markets

1 for meeting hourly system peaks, hourly market prices and not annualized
2 combustion turbine installation costs are the actual current indicators of the
3 value of curtailed KWH.

4 **Q. Page 12 of Mr. Brubaker's testimony refers to point 5 of his**
5 **Schedule 1, which relates to shortening the Company's on-peak hours**
6 **under the eliminated 10(M) Rate to end at 8 PM instead of 10 PM. Please**
7 **comment.**

8 A. It is unnecessary to revive and modify the eliminated 10(M) Rate
9 in order to provide this additional operating flexibility to the three MEG
10 customers, as they currently enjoy this flexibility during their participation in the
11 Company's Rider L, which allows them to vary their amount of curtailed load
12 during the various hours of the day.

13 **Q. Pages 12 and 13 of Mr. Brubaker's testimony discuss point 6**
14 **of his Schedule 1, which pertains to changes in a customer's firm assurance**
15 **power demands as a part of their service on the eliminated 10(M) Rates.**
16 **Please comment.**

17 A. Such changes in firm assurance demands were previously
18 accommodated under the eliminated 10(M) Rate on a year to year basis. The
19 short-term flexibility the MEG customers are seeking, as a part of point 6, is
20 currently available to them as a part of their participation in the Company's
21 Rider L.

1 **Q. On page 13 of his testimony Mr. Brubaker infers that the**
2 **Company did not respond to its proposals to modify the eliminated 10(M)**
3 **Rate, but rather attempted to persuade the MEG customers that Rider M**
4 **would be an adequate replacement. Did the Company actually do more**
5 **than what Mr. Brubaker is describing in that portion of his testimony?**

6 A. Yes. Rider L was also discussed extensively with the MEG
7 customers, along with Rider M, over the course of several meetings and an
8 abundant amount of information illustrating the application of these riders was
9 provided and explained to the MEG customers. However, to use Mr. Brubaker's
10 words, the MEG "did not respond with any particularity to these proposals," but
11 rather implied to the Company that their only interest was in a rate which would
12 provide them with their former annual discount of \$ 2.4 million previously
13 realized under the eliminated 10(M) Rate.

14 **Q. Page 14 of Mr. Brubaker's testimony recommends that the**
15 **Commission put an interruptible rate into effect which contains the**
16 **combination of features from the prior 10(M) Rate and the points outlined**
17 **in his Schedule 1. Does the Company agree with that recommendation?**

18 A. No. Mr. Brubaker's recommendation is totally unnecessary.
19 Throughout this testimony, I have indicated that virtually all of the rate concepts
20 contained in Mr. Brubaker's Schedule 1 have been incorporated, in full or in
21 part, in the Company's current Rider L and Rider M. A copy of these currently
22 effective Riders is attached to my testimony as Schedules 4 and 5, respectively.

1 **Q. Have you also developed a table which summarizes the**
2 **concepts of Rider L and Rider M with the rate concepts contained in Mr.**
3 **Brubaker's Schedule 1?**

4 A. Yes. That table is contained as Schedule 6 of my testimony.

5 **Q. What does the table contained in your Schedule 6 indicate?**

6 A. The table contained in Schedule 6 clearly illustrates that the
7 Company's voluntary curtailment Rider L and Rider M contain a number of
8 customer options and flexible tariff features which include, and go far beyond,
9 virtually all of the concepts contained in Mr. Brubaker's Schedule 1, and with
10 significantly less administrative burden on the Company than Mr. Brubaker's
11 proposals.

12 **Q. Given that the MEG customers currently have the operating**
13 **flexibility and options of Rider L available to them, in your opinion, why**
14 **are they continuing to request the reinstitution of a modified form of the**
15 **eliminated 10(M) Rate?**

16 A. By MEG's discussions with the Company, their various filings
17 with the Commission and their testimony in this case, it is clear that their
18 primary interest is not in rate design or tariff concepts, but rather in retrieving or
19 restoring the \$ 2.4 million annual discount they previously enjoyed under the
20 provisions of the eliminated 10(M) Rate, but gave up as a part of the settlement
21 of Case No. E0-96-15. Their objective in this case will, of course, be in addition

1 to the retention of all other benefits which they previously achieved through
2 their participation in that Rate Design Case.

3 **Q. Turning now to the testimony of the other MEG witnesses,**
4 **have you reviewed their direct testimony submitted in this case?**

5 A. Yes. As I stated earlier, I will comment on their testimony as a
6 group due to the general similarity of the testimony of these three witnesses.
7 Where specific comments are warranted regarding the testimony of any
8 individual MEG witness, I will also comment and identify that witness in my
9 testimony.

10 **Q. What are the similarities in the testimony of the three MEG**
11 **witnesses?**

12 A. Testimony from each of the MEG witnesses primarily addresses
13 savings realized by the MEG customers under the Company's terminated 10 (M)
14 Rate, the unacceptability of the Company's Rider M, and a preference for Mr.
15 Brubaker's modified version of the Company's eliminated 10 (M) Rate. No
16 mention is made of any savings which may have been realized by participation
17 in the Company's voluntary curtailment Rider L during the summer of 2000.

18 **Q. As Mr. Brubaker did, these three MEG witnesses also**
19 **suggested a return to the magnitude of the interruptible discounts**
20 **previously provided under the Company's eliminated 10 (M) Rate. Please**
21 **comment.**

1 A. As I stated earlier in my testimony, the MEG group was receiving
2 an annual interruptible discount under the eliminated 10(M) Rate, from firm rate
3 billing, in the amount of approximately \$ 2.4 million. However, these customers
4 gave up this amount in exchange for other benefits, in the settlement of the Rate
5 Design Case as a result of agreeing to the elimination of the 10 (M) Rate.

6 **Q. Turning now to the unacceptability of Rider M to the MEG**
7 **group, please comment.**

8 A. The MEG group finds Rider M to be unacceptable primarily
9 because it reflects market prices and would not provide adequate compensation
10 for lost production associated with curtailments provided thereunder. It is not
11 the Company's goal to design curtailment rates that totally compensate
12 customers, who are willing to curtail, for their incurred costs of doing so.
13 Rather, it is our goal to provide safe, reliable, and low cost service to all of our
14 customers. One of the fundamentals in achieving this goal is minimizing power
15 supply cost to serve load, to the maximum extent practicable. As stated earlier
16 in my testimony, Rider L helps to contribute toward this goal by establishing
17 curtailment rates within a range of anticipated market costs which are, typically,
18 much lower than the \$1.00 per kilowatthour discount provided to the MEG
19 customers under the provisions of the Company's eliminated 10(M) Rate.
20 While each individual customer must evaluate the economics of its own
21 operation, the Company must consider the economics of providing adequate and
22 reliable power to its entire customer base in its cost of service and rate design

1 practices. Properly allocating the bulk power costs of either serving or curtailing
2 customer electrical usage, along with appropriate rate design will ensure
3 economic equity for all customers. In developing the terms and conditions for
4 service under both Rider L and Rider M, the Company considered all of the
5 relevant cost and operational concepts associated with this voluntary curtailment
6 option. While the MEG companies claim that neither Rider L or Rider M is
7 economical for their operations, two of them failed to indicate what their
8 operating economics actually are, when asked to respond to various Company
9 data requests. Nevertheless, it is interesting and worth repeating that 200 other
10 customers have found the Company's current Rider M and/or Rider L voluntary
11 curtailment tariffs economically viable for their operations.

12 **Q. Is it surprising that these three MEG customers all express a**
13 **desire for a return to the eliminated 10(M) Rate, as modified by Mr.**
14 **Brubaker's Schedule 1?**

15 A. No, I'm not surprised that these customers would prefer Mr.
16 Brubaker's modified Rate 10 (M). As I stated earlier in my testimony, Mr.
17 Brubaker's proposal would essentially maintain the previous \$ 5.00 per kilowatt
18 credit that was contained in the Company's eliminated 10(M) Rate, which
19 overcompensates such customers for the value of their curtailable electrical load
20 to the Company. In addition, virtually all of the rate concepts contained in Mr.
21 Brubaker's proposals have been incorporated, in full or in part, in the

1 Company's current Rider L and Rider M, as illustrated in Schedule 6 of my
2 testimony.

3 **Q. Do you have any specific comments for any of the MEG**
4 **witnesses?**

5 **A.** Yes, I will address several issues in the testimony of Holnam's
6 witness David. F. Dorris. First, Mr. Dorris states that AmerenUE did not give
7 Holnam a clear method of tying the strike price to the option price under
8 Rider M. While Mr. Dorris is correct, the presence or absence of such
9 information is not relevant, as the economic evaluation which Mr. Dorris must
10 make should be based upon Holnam's plant economics and the curtailment
11 prices offered under the provisions of Rider M. In addition, the detailed
12 information Mr. Dorris suggested he needed from the Company, and was not
13 given, is considered proprietary, just as are the bases of many other types of
14 transactions made in the financial markets. For example, when deciding
15 whether to purchase an equity or stock option, one is not normally given the
16 opportunity to review the calculations made to set either the strike price or the
17 option price. Instead, a party must make its own evaluation of risk and potential
18 gain, and then make a decision based upon that evaluation.

19 **Q. On page 4 of his testimony Mr. Dorris makes the assertion**
20 **that a portion of the Company's Rider M tariff (paragraph 10. – Company**
21 **and Customer Obligations) allows the Company to curtail power without**
22 **compensation. Is that assertion by Mr. Dorris correct?**

1 A. No. This clause only becomes applicable when the power being
2 delivered to the customer becomes unavailable as a result of unexpected local
3 (e.g., distribution or transmission system outage) or more wide spread conditions
4 or causes on the Company's system. The application of this wording is generic
5 in nature and is only applicable during unexpected and unplanned for power
6 outage periods which are not controlled or instigated by Company. This clause
7 does not pertain to any curtailments resulting from actions taken by the customer
8 at the Company's request, nor does it permit the Company to curtail service to
9 the customer by taking actions external to the customer's premises. As an
10 example, under the eliminated 10(M) Rate, an unexpected local system outage
11 may have temporarily curtailed all power to Holnam. Had this occurred during a
12 time of curtailment, an outage would have occurred for Holnam's entire (firm
13 and interruptible) load, but Holnam's interruptible credits would have continued
14 only for the interruptible portion of its load. Holnam's firm load would have
15 been treated the same as that of any other firm customer, with regard to the
16 unexpected outage.

17 **Q. Does this conclude your Rebuttal Testimony?**

18 A. This concludes the comments that can be made at this time.
19 However, due to the tardiness of the responses of the MEG cement companies to
20 the Companies data requests, which were faxed to their attorney on August 18,
21 and their refusal to provide some of the information requested, the Company

1 may need, and should be permitted, to file any supplemental testimony which is
2 necessary as a result of the lack of timeliness and content of the MEG responses.

3 **Q. Based upon the request date of August 18, when should the**
4 **responses to these data requests have been returned to the Company?**

5 A. By my calendar, August 18 is the 231st day of the year, which
6 means that these responses were due on the 251st day of the year, or Thursday
7 September 7. While Mr. Brubaker gave me his responses by phone on Friday
8 September 8, the remaining responses were not faxed to us until Tuesday
9 September 12 and Wednesday September 13. This testimony was originally due
10 on Thursday September 14. While we were given an extension of time to file
11 this testimony as a result of these delays, this cannot adequately compensate for
12 the disruptions in the schedules of other project work planned for September 14
13 and 15, the two days after the testimony should have been completed and filed.
14 The fact that some of these late responses claimed such data did not have to be
15 provided, instead of filing a formal protest within the normal ten-day period
16 required for that purpose, also contributes to the potential need for supplemental
17 rebuttal testimony.

18 **Q. Does this conclude your Rebuttal Testimony at this time?**

19 A. Yes, it does.
20
21
22

QUALIFICATIONS OF RICHARD J. KOVACH

My name is Richard J. Kovach, and I reside in St. Louis County, Missouri.

I received the degrees of Bachelor of Science in Industrial Engineering in 1962 and Master of Engineering Administration in 1967 from Washington University in St. Louis, Missouri.

I was employed as an Assistant Engineer in the Rate and Statistical Department of Union Electric in January 1963. My work in the Department included assignments relating to the general analysis and administration of various aspects of Union Electric's electric, gas and steam rates. From 1966 to 1970, I held various engineering positions in the Corporate Planning, Transmission and Distribution, Engineering and Construction, and Power Operations functions of the Company. In April 1970, I returned to the Corporate Planning Function and was appointed Supervising Engineer - Rates and Planning in that function in February 1973. In the latter position I was responsible for day-to-day rate and tariff administration, conducting studies relative to utility cost-of-service and participation in Union Electric Company rate case proceedings. I was appointed to my present position of Manager of Rate Engineering in April 1975 and to the same position with Ameren Services in 1998.

I currently have responsibility for the general policies and practices associated with the day-to-day administration and design of Union Electric's electric and gas rate tariffs, riders and rules and regulations tariffs on file with the Missouri Public Service Commission and the Illinois Commerce Commission, and in the participation in various proceedings before these regulatory agencies. In addition, Rate Engineering is responsible for conducting class cost-of-service and rate design studies, and the participation in other projects of a general corporate nature, as requested by the Vice President of Corporate Planning.

I am a registered Professional Engineer in the states of Missouri and Illinois. In addition, I am the Ameren Services representative on the Edison Electric Institute (EEI) Economic Regulation & Competition Committee. The EEI Committee provides its membership with current information applicable to various rate design and regulatory concepts, as well as new and proposed state and federal legislation. Its membership consists of the individuals responsible for rate design and administration from virtually every investor-owned utility in the United States.

4. Interruptible Power Rate

The present Service Classification No. 10(M) – Interruptible Power Rate shall no longer be available for service to additional customers. It will be available to current interruptible customers through the May 2000 billing period, but not thereafter. Company shall file tariff sheets, which in substance are identical to the Voluntary Curtailment Rider shown in Attachment 2, no later than April 30, 1999, bearing a proposed effective date of June 1, 1999. No party to this Stipulation and Agreement will oppose allowing those tariff sheets to become effective by operation of law, (i.e., in accordance with Section 393.140 (11) RSMo. 1994), so long as the filed tariff sheets are indeed identical in substance.

Current Interruptible Power Rate 10(M) customers seeking to transfer to the 3(M), 4(M), or 11(M) Rate and the Voluntary Curtailment Rider, must so notify the Company in writing in advance and transfer to the new rate and rider no later than June 1, 1999. Otherwise, such customers must remain on the current Interruptible Power Rate 10(M) during the billing months of June through September 1999. Interruptible Rate 10(M) customers who transfer to another rate and the Voluntary Curtailment Rider may not return to the Interruptible Power Rate 10(M).

No party to this agreement will object, on procedural grounds, to an application filed by any other such party to initiate a docket for consideration by the Commission of an additional alternative rate option for interruptible customers, to be available no sooner than June 1, 2000.

The Company and the Industrials will enter into good faith discussions regarding alternative interruptible rate options. The Company agrees to provide the notifications (See Attachment 2.) made by the Company under the Voluntary Curtailment Rider to customers on the Interruptible Power Rate 10(M), on the same basis and at the same time that it is provided to customers taking service under the Voluntary Curtailment Rider.

(Source: Pages 10 and 11 of STIPULATION AND AGREEMENT – Case No. EO-96-15)

RATE CONCEPT COMPARISON

	Concept	Discontinued 10(M) Rate	Brubaker Proposal (Schedule 1)	Brubaker Schedule 1 Impact on 10(M) Rate
1	Eligibility	Minimum of 10 mw of interruptibility with stated assurance demand	Same	None
2	Rate for Service	Firm energy charge and assurance charge, discounted interruptible demand charge	Same	None
	Penalties	12 month demand penalty or \$60 per kw	\$10 per kw	Reduces penalty
3	TOD Options	On Peak Charges and Off Peak Credits	Same	None
4	Seasonal Months	4 Summer and 8 Winter	Same	None
5	Assurance Demand	Chosen by customer	Same	None
6	Interruptible Demand	Difference in Billing Demand and Assurance	Same	None
7	On Peak Hours Off Peak Hours	10 am to 10 pm (Weekdays) All other hours	10 am to 8 pm (Weekdays) All other hours	Reduces On Peak hours
8	Rider B Credits	Unit adjustment and demand credit	Same	None
9	Reactive Kilovars	24¢ per kilovar	Same	None
10	Minimum Charge	Customer charge and Assurance demand charge	Same	None
11	Curtailment of Service Reasons 10(M)	Reliability, system peak	Reliability, limited economic	Eliminates system peaks
	Economic	NA	Max. of 60 hours per year when costs exceeds 50¢ per kwh	Adds limited economic curtailment provision
	Notices: General	Minimal notice for reliability	Same	None
	Notices: Economic	NA	24 hour	Adds new notice requirement
12	Record Keeping	Normal billing data	Record/report actual and hourly load/cost data	Adds new record keeping requirement
13	Assurance Demand Changes	Change by performance-12 month penalty	90 days notice then lock for 12 months	Reduces assurance notice requirement

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

P. S. C. MO., ILL. C. C., IA. ST. C. C. SCHEDULE NO. 5

6th Revised

SHEET NO. 116CANCELLING SCHEDULE NO. 5

5th Revised

SHEET NO. 116

APPLYING TO

MISSOURI SERVICE AREARIDER LVOLUNTARY CURTAILMENT RIDER**PURPOSE:**

The purpose of this Rider is to provide credits to customers who, at Company's request, voluntarily curtail (interrupt and/or displace) electrical usage normally served by Company.

APPLICABILITY:

This Rider is applicable to and is to be used in conjunction with the Company's Electric Service Classifications 3(M) Large General Service Rate, 4(M) Small Primary Service Rate, or 11(M) Large Primary Service Rate. All of the provisions of the above referenced Service Classifications and the Company's General Rules and Regulations shall apply, except as modified by this Rider. This Rider may not be used in conjunction with the Company's Rider G - Curtailable Power Project.

*The applicability of this Rider is limited to customers receiving service under the above referenced Service Classifications who voluntarily agree and have the capability to curtail 500 kWh per hour at a single premises during Voluntary Curtailment Periods specified by Company.

Applicants for this Rider must provide the Company with an acceptable action plan for complying with the provisions of the Rider.

NOTIFICATION:

Standard notification of the declaration of a Voluntary Curtailment Period shall be by telephone facsimile (FAX). Additionally, at the Company's sole discretion, said notification may be supplemented with contact by telephone, pager, or E-mail.

Notification of Voluntary Curtailment Offers will be sent to customers by 8:00 A.M. on the last business day prior to the day of the Voluntary Curtailment Period and/or by 8:00 A.M. on the day of the Voluntary Curtailment Period as the situation warrants. This may result in multiple Voluntary Curtailment Offers for the same or different Voluntary Curtailment Periods on a single day.

*The Company will endeavor to provide customers as much advance notice as possible with regard to said Notifications. The Notification shall direct customers to the Company's Voluntary Curtailment internet site for the specified hours of the Voluntary Curtailment Period and the corresponding hourly prices.

*To be eligible for Credits for a Voluntary Curtailment Period, the customer must confirm to Company, by responding on Company's Voluntary Curtailment internet site before 10:00 AM on the day that Notification was given, that the customer intends to participate and the level of load the Company can expect the customer to curtail in each hour of the Voluntary Curtailment Period. Customer's failure to respond shall be considered by Company as a response that the customer does not intend to participate during that Voluntary Curtailment Period.

*Indicates Change

P.S.C. Mo. DATE OF ISSUE May 26, 2000DATE EFFECTIVE June 25, 2000ISSUED BY C. W. Mueller
NAME OF OFFICERPresident & CEO
TITLESt. Louis, Missouri
ADDRESS

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

P. S. C. MO., ILL. C. C., IA. ST. C. C. SCHEDULE NO. 5 2nd Revised SHEET NO. 116.1CANCELLING SCHEDULE NO. 5 1st Revised SHEET NO. 116.1APPLYING TO MISSOURI SERVICE AREARIDER LVOLUNTARY CURTAILMENT RIDER

*Customers who, on three consecutive occasions, do not acknowledge receipt of the Curtailment Notification or who indicate an intent to curtail usage, but who do not curtail their usage during the specified Voluntary Curtailment Period hours specified by Company, will be considered in default of the Rider. The Company will eliminate such Customers from further participation under this Rider with thirty (30) days written notice.

ADDITIONAL METERING:

Service under this Rider requires the use of interval time sensitive electronic load profile metering at each meter location, not considered standard by Company under some rate classifications. When required, the customer shall pay a monthly fee of \$21 for each electronic load profile meter installed for the application and billing of this Rider. The Company may, at customer's expense, require additional communication equipment for the administration of this Rider.

CURTAILMENT KILOWATTHOUR DETERMINATION:

*Company will determine the Curtailment kWh for each hour within a Voluntary Curtailment Period for each customer premises using the following methodology:

$$\text{*Hourly Curtailment kWh} = \text{Hourly Equivalent Period kWh usage} - \text{Actual Hourly Curtailment Period kWh usage.}$$

*The customer's kWh usage during each clock hour of the fifteen (15) non-curtailed and non-holiday weekdays, immediately prior to the date of each of the Company's Voluntary Curtailment Period notifications, will be averaged hourly and used as the customer's Equivalent Period kWh for the comparable clock hours within the Curtailment Period. Where customer responds to both a day ahead and same day voluntary curtailment notification, customer's Equivalent Period kWh will be determined as described herein, based upon customer usage during the fifteen (15) applicable days immediately prior to the Company's day ahead voluntary curtailment notification. Exceptions to this will be used if the actual day of the curtailment is not a typical peak weekday, such as a weekend day, holiday, or day when other events would have influenced usage patterns. For such exceptions, the Equivalent Periods will be those determined by the Company as the most representative of the period of the curtailment.

CREDITS:

$$\text{*Credit} = [\text{Hourly Curtailment kWh}] \times [\text{Hourly Price quoted by Company}]$$

*The monthly Credit calculated for electric service at a premises will be the sum of the individual Credits for each Voluntary Curtailment Period hour, considering both positive and negative hourly curtailment kWh, during the curtailment periods in which the customer confirmed its participation. Where customer participates in both day ahead and same day voluntary curtailments, customer's day ahead kWh curtailment commitment will first be priced as

*Indicates Change

P.S.C. Mo. DATE OF ISSUE May 26, 2000 DATE EFFECTIVE June 25, 2000
ISSUED BY C. W. Mueller President & CEO St. Louis, Missouri
NAME OF OFFICER TITLE ADDRESS

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

P. S. C. MO., ILL. C. C., IA. ST. C. C. SCHEDULE NO. 5

2nd Revised

SHEET NO. 116.2CANCELLING SCHEDULE NO. 5

1st Revised

SHEET NO. 116.2

APPLYING TO

MISSOURI SERVICE AREARIDER LVOLUNTARY CURTAILMENT RIDER

*described herein, based upon the Company's posted day ahead hourly prices. Thereafter, any additional same day kWh curtailed by customer will be priced as described herein, based upon the Company's posted same day hourly prices.

**Prior to the June 2001 billing month, the monthly Credit for electric service at a premises will be calculated by first setting any negative Curtailment kWh determined for any hour to zero.

**In the determination of the customer's monthly Credit beginning with the June 2001 billing month, both positive and negative hourly curtailment kWh will be applied to the hourly prices for each Voluntary Curtailment Period in which the customer has confirmed its participation.

**No customer's monthly bill will be increased as a result of participating in the terms and conditions of this Rider L, other than any applicable metering fees provided for herein.

*Such Credits will be paid to customers by check or at the Company's option, by credit being applied to the bill for the period in which the request for voluntary curtailment(s) occurred.

TERMS AND CONDITIONS:

Company shall have no liability to a customer or to any other person, firm, or corporation for any loss, damage, or injury by reason of non-delivery of electric energy during any Voluntary Curtailment Period as provided herein.

The Company shall not be liable for the cost of fuel, operation and maintenance expense or repairs resulting from a customer's use of its own electric generation during any Voluntary Curtailment Period.

Customer's generating equipment shall not be operated in parallel with Company's service except when such operation is approved by Company and permitted under a written agreement with Company.

Company assumes no responsibility for controlling the customer's generation and/or shedding customer's load.

The Company will not adjust or prorate a customer's billing demand applicable to a customer's standard Service Classification rate as a result of any voluntary curtailments under this Rider.

Any interruption, curtailment or reduction of electric service caused by, resulting from, or arising out of an unexpected occurrence shall not be deemed a Notification of a Voluntary Curtailment Period qualifying a customer for Credits under this Rider.

After receipt of original executed contract from customer, service under this rider shall commence no later than fifteen (15) days after customer's interval meter load data becomes available. A copy of the executed contract shall be provided to the Commission's Manager of the Electric Department within ten days of execution for informational purposes.

*Indicates Change

**Indicate Addition

P.S.C. Mo. DATE OF ISSUE May 26, 2000DATE EFFECTIVE June 25, 2000ISSUED BY C. W. Mueller
NAME OF OFFICERPresident & CEO
TITLESt. Louis, Missouri
ADDRESS

APPLYING TO

MISSOURI SERVICE AREA

RIDER M
OPTION BASED CURTAILMENT RIDER

1. PURPOSE

The purpose of this Rider is to provide customers the option to grant Company the right, but not the obligation, to call for curtailment of a certain level of customer's energy consumption, based upon various curtailment options and associated prices offered by Company, selected by customer, and specified by contract between customer and Company.

2. APPLICABILITY

This Rider is applicable to and is to be used in conjunction with the Company's Electric Service Classifications 4(M) - Small Primary Service Rate or 11(M) - Large Primary Service Rate. All of the provisions of such Service Classifications and the Company's General Rules and Regulations shall apply, except as modified by this Rider. Customers may elect to be served under this Rider and the Company's Rider L Voluntary Curtailment Rider. However, Company will specify in its notification of curtailment whether said curtailment is to be treated as Rider M or Rider L. If Customer receives both Rider M and Rider L notification of curtailment for the same day, then only the provisions of this Rider M will apply. Customers may not be served under this Rider and the Company's Rider G - Curtailable Power Project.

The applicability of this Rider is limited to customers receiving service under the above referenced Service Classifications and who agree to curtail their electrical use, upon notice by Company, by a minimum of 1,000 kilowatthours (kWh) per hour at a single premises, under the terms and conditions of this Rider and those specified by contract.

Applicants for this Rider must provide the Company with an acceptable action plan for complying with the provisions of the Rider.

3. OPTION PREMIUM PAYMENT

The Option Premiums offered by Company, for payment to customer under the provisions of this Rider, will be based upon projected power market prices for the forthcoming summer season and the curtailment options selected by customer. Due to market price volatility, the Option Premiums quoted under the provisions of this Rider will be time sensitive and subject to the conditions in existence at the time such Premiums are contracted for between Company and customer. However, all customers will be quoted the same Options Premium, per unit of load reduction, for the same selected customer options at the same point in time.

APPLYING TO

MISSOURI SERVICE AREA

RIDER M
OPTION BASED CURTAILMENT RIDER

The Option Premium Payment shall be based upon the following options selected by customer and contracted for with Company: a) curtailment Strike Price of either \$100, \$250, \$500, \$750, or \$1000 per megawatthour; b) allowed frequency of curtailments from one (1) to five (5) weekdays per week, and c) the curtailment interval duration of either eight (8) or sixteen (16) hours.

Said Option Premium Payment shall be paid to customer in four monthly installments (billing periods of June, July, August, and September), in consideration for the curtailment option provided by customer to Company under the provisions of this Rider.

4. STRIKE PRICE APPLICATION

For each kWh that the customer curtails, up to the level of curtailment called for by contract, Company shall pay customer the Contract Strike Price selected by customer. Such kWh shall be determined in accordance with the verification methodology set forth below. The total amount paid by Company under this provision shall be provided as a credit on the customer's bill, for the month during which the curtailment occurred, or paid by separate check, at the Company's discretion.

5. PASSTHROUGH MARKET PRICE

Should customer fail to reduce its kWh consumption by its contracted for level during any Company call for curtailment, customer shall pay Company a Passthrough Market Price for each kWh customer failed to curtail during any hour of the curtailment interval. Such kWh shortfall shall be determined in accordance with the verification methodology set forth below.

The Passthrough Market Price for each hour will be equal to the positive difference, if any, between (a) the Weighted Average Index Price for delivery to Cinergy as published in the Megawatt Daily "Trades for Standard 16-Hour Daily Products," (Daily Market Price) for the day the customer failed to curtail consumption, adjusted to account for the value difference between daily and hourly products by multiplying the Daily Market Price by the applicable hourly factor set forth below; and (b) the Contract Strike Price. The adjustment factor, based on such value difference, shall be as follows:

<u>Hour Ending</u>	<u>Factor</u>
700-1200	0.25
1300-1400	1.00
1500-1800	2.50
1900-2200	0.60

P. S. C. MO., ILL. C. C., IA. ST. C. C. SCHEDULE NO. 5

Original

SHEET NO. 116.5CANCELLING SCHEDULE NO. 5

SHEET NO. _____

APPLYING TO

MISSOURI SERVICE AREA

RIDER M
OPTION BASED CURTAILMENT RIDER

6. CURTAILMENT NOTIFICATION

Company shall provide customer notice of its intent to exercise a curtailment option by facsimile, which, at Company's sole discretion, may be supplemented with contact by telephone, pager, or E-mail. The notice shall state the date and time that the curtailment shall commence, the required curtailment interval duration (Curtailment Period). Such notice shall be provided no later than 10:00 a.m. Central Prevailing Time (CPT) of the last business day immediately prior to the intended day of curtailment.

Curtailment interval durations of sixteen hours will commence at 6:00 a.m. CPT. Curtailments interval durations of eight hours will commence, at Company's sole discretion, between 6:00 a.m. CPT and 2:00 p.m. CPT. All referenced hours refer to clock hours.

7. VERIFICATION OF CUSTOMER COMPLIANCE

Customer compliance with Company's curtailment notice shall be determined based upon the average kilowatthours (kWh) consumed by the customer during each hour of the customer's Equivalent Period, as defined below, less the actual kilowatthours (kWh) consumed during each hour of the Curtailment Period. The calculation is expressed as the following formula:

Curtailment Kilowatthours (kWh) for each Curtailment Period Hour =

[Average Kilowatthours (kWh) for each Equivalent Period Hour]

Minus

[Actual Kilowatthours (kWh) for each Curtailment Period Hour]

For purposes of verification, customer's Equivalent Period shall be the same hours as those hours noticed for the Curtailment Period during the fifteen (15) non-curtailed, non-holiday weekday periods immediately prior to the date of notification. Company reserves the right to adjust Equivalent Period days for periods where usage during such days is not a typical peak weekday, such as a weekend day, holiday, or day when other events influenced usage patterns.

P.S.C. Mo. DATE OF ISSUE April 6, 2000DATE EFFECTIVE May 6, 2000ISSUED BY Charles W. Mueller
NAME OF OFFICERPresident & CEO
TITLESt. Louis, Missouri
ADDRESS

Schedule 5

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

P. S. C. MO., ILL. C. C., IA. ST. C. C. SCHEDULE NO. 5

Original

SHEET NO. 116.6CANCELLING SCHEDULE NO. 5

SHEET NO. _____

APPLYING TO

MISSOURI SERVICE AREA

RIDER M
OPTION BASED CURTAILMENT RIDER

8. BILLING DEMAND STANDARD

Company's exercise of its curtailment option under this Rider shall not result in any adjustment or prorating of the customer's billing demand determined in accordance with the provisions of Service Classifications 4(M) or 11(M).

9. ADDITIONAL METERING

Service under this Rider requires the use of interval time sensitive electronic load profile metering at each meter location, metering not considered standard by Company under some rate classifications. The customer shall pay a monthly fee of \$21 for each electronic load profile meter required solely for the application and billing of this Rider.

10. COMPANY AND CUSTOMER OBLIGATIONS

Company shall have no liability to a customer or to any other person, firm or corporation for any loss, damage or injury by reason of non-delivery of electric energy during any curtailment relative to Company's exercise of its Curtailment Option.

The customer's generating equipment, if any, shall not be operated in parallel with Company's service except when such operation is approved by Company and permitted under a separate written agreement with Company. Company assumes no responsibility for controlling the customer's generation and/or shedding the customer's load and shall not be liable for the cost of fuel, operation and maintenance expense or repairs resulting from a customer's use of its own electric generation during curtailments under this Rider.

The possibility of interruption, curtailment or reduction of electric service caused by, resulting from, or arising out of unexpected causes or occurrences shall not be deemed to be Company's exercise of any Curtailment Option entitling the customer to the payment of the Strike Price under this Rider.

11. Contract

Service under this Rider shall be evidenced by a contract between the customer and the Company, a copy of which shall be provided for informational purposes to the Commission's Manager of the Electric Department within ten days of execution.

The term of service under this Rider shall be customer's billing months that encompass the calendar months of June through September, within a customer's contract year.

P.S.C. Mo. DATE OF ISSUE April 6, 2000DATE EFFECTIVE May 6, 2000ISSUED BY Charles W. Mueller
NAME OF OFFICERPresident & CEO
TITLESt. Louis, Missouri
ADDRESS

Schedule 5

COMPARISON OF RATE CONCEPTS
AMEREN RIDERS L & M / BRUBAKER SCHEDULE 1

	Concept	Brubaker Proposal (Schedule 1)	Rider L (Kovach Schedule 4)	Rider M (Kovach Schedule 5)	Advantages of Riders L & M over Brubaker Schedule 1
1	Eligibility	Minimum of 10 mw of interruptibility with stated assurance demand	Minimum of 500 kw of curtailment capability	Minimum of 1,000 kw of curtailment capability	Available to smaller and a greater number of customers
2	Rate for Service	Firm energy charge and assurance charge, discounted interruptible demand charge	Large GS 3(M) or Primary Service 4(M) or 11(M) Rates	Primary Service 4(M) or 11(M) Rates	Based upon standard base rate tariffs
	Penalties	\$10 per kw	Hourly quoted prices for kwh not curtailed	Passthrough market price for kwh not curtailed	Limited to kwh only and based on upon quoted/published prices
3	TOD Options	On Peak Charges and Off Peak Credits	Same as basic rate	Same as basic rate	All curtailment prices are TOD related
4	Seasonal Months	4 Summer and 8 Winter	Same as basic rate	Same as basic rate	Same
5	Assurance Demand	Chosen by customer	Basic service is firm – curtailments voluntary	Basic service is firm – options contract is voluntary	No assurance demand required
6	Interruptible Demand	Difference in Billing Demand and Assurance	Voluntary subject to 500 kw when participating	Subject to voluntary contract provisions	No interruptible demand required beyond Rider minimums
7	On Peak Hours Off Peak Hours	10 am to 8 pm (Weekdays) All other hours	Same as basic rate	Same as basic rate	Same
8	Rider B Credits	Unit adjustment and kw credit	Same as basic rate	Same as basic rate	Same
9	Reactive Kilovars	24¢ per kilovar	Same as basic rate	Same as basic rate	Same
10	Minimum Charge	Customer charge and Assurance demand charge	Same as basic rate	Same as basic rate	Same
11	Curtailment of Service Reasons 10(M)	Reliability, limited economic	Curtailments are voluntary	Subject to voluntary contract provisions	No reasons required for voluntary curtailment offerings
	Economic	Max. of 60 hours per year when costs exceeds 50¢ per kwh	Hourly prices offered for voluntary curtailment kwh	Subject to voluntary contract provisions	Variable hourly prices offered to customers for voluntary curtailments
	Notices: General	Minimal notice for reliability	Day ahead and/or same day offerings	Day ahead notification Rider L option	Advance notification for voluntary curtailments
	Notices: Economic	24 hour	Day ahead and/or same day offerings	Day ahead notification Rider L option	Advance notification for voluntary curtailments
12	Record Keeping	Record/report actual and hourly load/cost data	Electronic automation	Electronic automation	Fully automated system – 10(M) system required manual billing and performance review
13	Assurance Demand Changes	90 days notice then lock for 12 months	Not applicable	Not applicable	No assurance demand required