

STATE OF MISSOURI  
PUBLIC SERVICE COMMISSION

At a hearing of the Public Service  
Commission, held at Jefferson City,  
Missouri, on the 21st day of  
October, . . . . . 1980.

In the matter of UNION ELECTRIC )  
COMPANY of St. Louis, Missouri, )  
for authority to file revised )  
tariffs for incandescent light- ) CASE NO. ER-80-190  
ing service provided to customers )  
in the Missouri service area of )  
the company. )

BEFORE:

EDWARD J. CADIEUX, Presiding,  
HEARING EXAMINER.

ALBERTA C. SLAVIN, Chairman,  
LEAH BROCK MCCARTNEY,

COMMISSIONERS.

REPORTED BY:

Jan A. Williams  
Nancy A. Fox, CCR

APPEARANCES:

MICHAEL BARNES, Attorney at Law,  
and  
CHRIS KELLEHER, Attorney at Law,  
Post Office Box 149,  
St. Louis, Missouri 63166,

FOR: UNION ELECTRIC COMPANY.

ROBERT G. BRADY, Attorney at Law,  
500 North Broadway, Suite 2100,  
St. Louis, Missouri 63102,

and

DENNIS F. KAY, City Attorney,  
6801 Delmar Boulevard,  
University City, Missouri 63130,

FOR: UNIVERSITY CITY, MISSOURI.

ERIC K. BANKS, Assistant General Counsel,  
Post Office Box 360,  
Jefferson City, Missouri 65102,

FOR: STAFF OF THE PUBLIC SERVICE COMMISSION.

APPEARANCES

OTHER THAN LEGAL:

JAMES L. CARL,  
7110 Washington Avenue,  
University City, Missouri 63130,

APPEARING PRO SE.

**P R O C E E D I N G S**

(EXHIBITS NOS. 1 TO 9 WERE MARKED BY THE  
REPORTER FOR IDENTIFICATION.)

(Written Entries of Appearance Filed.)

EXAMINER CADIEUX: The hearing will come to order.

The Commission has set for hearing at this  
time Case No. ER-80-190, in the matter of Union Electric  
Company of St. Louis, Missouri, for authority to file tariffs  
for incandescent lighting service provided to customers in  
the Missouri service area of the company.

The Commission will accept oral entries of  
appearance at this time, beginning with the company.

MR. BARNES: Michael Barnes and Christopher  
Kelleher appearing for Union Electric Company, Post Office  
Box 149, St. Louis, Missouri, 63166.

MR. BRADY: Robert G. Brady, Bryan, Cave,  
McPheeters & McRoberts, 500 North Broadway, St. Louis,  
Missouri, 63102, appearing for the city of University City.

MR. KAY: Dennis F. Kay, city attorney,  
city of University City, 6801 Delmar, University City,  
Missouri, representing the city.

MR. BANKS: Eric Banks, 100 East Capitol,  
Jefferson City, Missouri, appearing for the Commission Staff.

MR. CARL: James Carl, 7110 Washington,  
University City, Missouri, appearing for myself.



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EXAMINER CADIEUX: Let the record reflect  
that prior to going on the record the following order for  
the presentation of evidence and cross-examination has been  
established: Company will go first, followed by the Staff,  
then University City, and then Mr. Carl.

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Are there any preliminary matters which the  
parties wish to address at this time?

(No response.)

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EXAMINER CADIEUX: If not, Mr. Barnes, do  
you wish to make an opening statement?

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MR. BARNES: Yes, Mr. Examiner. I'd like to  
make a very brief opening statement.

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Union Electric Company wants to get out of  
the business of owning and maintaining incandescent street  
lights. We eventually want to change entirely to non-  
incandescent street lights. Toward that end, last December,  
we filed proposed changes to our three incandescent street  
lighting tariffs. The proposed change to each tariff  
consists of the addition of this single sentence:  
Maintenance of standards, brackets, fixtures, and lamps will  
not be performed by company after December 31, 1980.

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25  
In support of its case, Union Electric will  
call three witnesses. The first witness will be Mr. Robert  
Merlo of our rates department who will identify the proposed  
tariff changes filed last December. He will also identify

1 the four Union Electric street lighting tariffs now in  
2 existence. These tariffs will be submitted into evidence  
3 in case the parties, during the course of this hearing, find  
4 it necessary to refer to them.

5 The second witness will be Mr. Ronald Zdellar  
6 of our transmission and distribution cost control unit.  
7 Mr. Zdellar will testify as to the basic reasons why Union  
8 Electric wants to eventually get out of the ownership and  
9 maintenance of incandescent street lighting. Mr. Zdellar's  
10 testimony will show how incandescent used to be just about  
11 the only street light that Union Electric had to offer. But  
12 he will show that since the 1960's mercury vapor and high  
13 pressure sodium street lights have taken over the street  
14 lighting business so that, now, only about 2 percent of our  
15 street lights are incandescent. In fact, Mr. Zdellar will  
16 testify that we have added no new incandescent street light-  
17 ing customers for the last 14 years. Mr. Zdellar will  
18 testify that non-incandescent lighting is now dominant  
19 because it is more economical, more energy efficient, and  
20 easier to repair. Mr. Zdellar will testify that parts for  
21 incandescent street lighting generally are very expensive to  
22 buy, if, indeed, the parts can be found at all.

23 Union Electric's third and last witness will  
24 be Mr. Jack Gillum. Mr. Gillum will testify concerning the  
25 three basic options that will be available to all



1 incandescent street lighting customers when the Commission  
2 approves our plan to end maintenance of the incandescent  
3 street lights. Next, Mr. Gillum will identify and read a  
4 stipulation and agreement that the parties in this case,  
5 Union Electric, University City, and Mr. James Carl, have  
6 reached. This agreement which will be offered to the  
7 Commission for their approval concerns the red granite and  
8 cast-iron incandescent street light standards that are now  
9 in University City.

10 If the Commission approves the stipulation  
11 and agreement, Union Electric will offer the terms of the  
12 stipulation and agreement to all incandescent street light-  
13 ing customers who have these red granite and cast-iron  
14 incandescent standards. Mr. Gillum will detail the three  
15 basic options available under the stipulation and agreement.  
16 Mr. Gillum will also note that the stipulation calls for  
17 Union Electric to delay its end of maintenance date from  
18 December 31 of this year to July 1st of 1981.

19 In closing I might add that, in a case like  
20 this where the parties have reached a stipulation and agree-  
21 ment, it is unusual for the respondent to go ahead with  
22 evidence of its case. Usually, just the stipulation is put  
23 into evidence for the Commission's consideration. However,  
24 in this case the stipulation and agreement applies only as  
25 to how the company will phase out its maintenance and

1 ownership of incandescent lighting. The company feels we  
2 still have to make a basic case to convince the Commission  
3 that we should be out of the incandescent lighting business  
4 to begin with. That concludes my opening statement.

5 EXAMINER CADIEUX: Mr. Banks, do you wish to  
6 make an opening statement at this time?

7 MR. BANKS: Yes, your Honor.

8 On Tuesday, September 16, 1980, there was a  
9 public hearing held in Clayton, Missouri, regarding Union  
10 Electric's request. At that time the citizens who were  
11 present raised several legitimate questions that needed to  
12 be addressed by the Commission Staff. The Staff has made an  
13 investigation. The witness for the Staff will present basic  
14 information regarding that investigation and how it impacts  
15 upon the stipulation that will be submitted for the  
16 Commission's approval.

17 EXAMINER CADIEUX: Mr. Brady.

18 MR. BRADY: If it please Mr. Examiner and the  
19 Commissioners, I think that what Mr. Barnes touched on at  
20 the last of his opening statement should be somewhat  
21 amplified.

22 This has been a long and involved and rather  
23 hard fought negotiation. The evidence that we'll be  
24 presenting is merely to convince the Commission, or attempt  
25 to convince the Commission, that this stipulation was not

1 lightly arrived at. This is not a typical settlement. This  
2 is an atypical settlement in that much depends upon several  
3 provisions, all the provisions, but especially upon several  
4 and, indeed, in particular, upon one provision of the  
5 settlement agreement.

6 It is the city's position that we want the  
7 Commission to fully understand that we are entering into  
8 this as an evidence of good faith in return for an evidence  
9 of good faith given to us by the company. We believe that  
10 we can amicably settle this matter and ask for the  
11 Commission's approval based upon that good faith attempt by  
12 both sides in this case. This is a case where nobody is  
13 getting exactly what they want. And we thought it important  
14 that the Commission understand that, at least, the city and,  
15 we believe, the company, too, recognizes that. And we will  
16 support the settlement.

17 With regard to Mr. Carl's presentation and  
18 the so-called historic or ornamental lights issue, the city  
19 supports Mr. Carl in his position. He is appearing here  
20 pro se. And, absent some untoward happening during the  
21 presentation of this very limited case, we will support his  
22 position as arrived at in the settlement and, also, ask that  
23 that be approved.

24 EXAMINER CADIEUX: Off the record.

25 (Discussion off the record.)



1 EXAMINER CADIEUX: On the record.

2 Mr. Carl.

3 MR. CARL: I'm appearing here in support of  
4 the settlement reached between myself, the city, and Union  
5 Electric because it is the best deal that I felt that the  
6 city and myself could get from the company. I wish to  
7 present evidence, with the Commission's permission, that  
8 we had, all along, a proposal that would have fit into the  
9 company philosophy of conversion to mercury vapor, phasing  
10 out an incandescent system of high intrinsic and historical  
11 value, and converting that system in conformity with  
12 company policy to mercury vapor. And the only way that we  
13 could get this system converted was to agree to the settle-  
14 ment by which this system is removed from Union Electric's  
15 care.

16 EXAMINER CADIEUX: Thank you, sir.

17 Mr. Barnes, do you wish to call your first  
18 witness?

19 MR. BARNES: Yes, Mr. Examiner. I'd like to  
20 call Mr. Robert Merlo to the stand, please.

21 (Witness sworn.)

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23 EXAMINER CADIEUX: Before we begin with  
24 questioning, the record should reflect that Company's  
25 Exhibits 1 through 8 have been marked for identification

1 prior to going on the record. Additionally, the stipulation  
2 and agreement, which has been referred to by the parties in  
3 their opening statements, has been marked for identification  
4 as Joint Exhibit 9.

5 Mr. Barnes.

6 ROBERT MERLO testified as follows:

7 DIRECT EXAMINATION BY MR. BARNES:

8 Q Mr. Merlo, would you please state your name  
9 and address for the record.

10 A My name is Robert C. Merlo. I live in St. Louis  
11 County, Missouri.

12 Q By whom are you employed?

13 A Union Electric Company.

14 Q How long have you been employed by the company?

15 A Approximately seven years.

16 Q Would you please give a brief history of the  
17 jobs you have held at the company?

18 A I was originally employed as an assistant  
19 engineer in the subtransmission and bulk substation group of  
20 system planning at Union Electric in May, 1973. My  
21 responsibilities included the planning and development of  
22 the subtransmission system in St. Louis City and County and  
23 the planning of general design of bulk substations in that  
24 area. In addition, I performed special studies related to  
25 transmission and distribution line extensions, computer

1 studies, and other general power system problems as assigned.

2 In June, 1977, I was promoted to engineer  
3 in system planning. In July, 1978, I transferred to my  
4 present position as an engineer in the rate engineering  
5 department. My responsibilities there include assignments  
6 related to retail and wholesale rate case proceedings,  
7 including both rate analysis and property valuation, the  
8 development and interpretation of tariffs relative to Union  
9 Electric's rates and rules and regulations, the develop-  
10 ment of special contracts, and other general rate administra-  
11 tion projects as assigned.

12 Q Mr. Merlo, would you please give your  
13 educational background?

14 A I received a Bachelor of Science degree in  
15 electrical engineering in 1972 from the University of  
16 Missouri at Columbia, a Master of Science degree in  
17 electrical engineering in 1973 from the same university,  
18 and presently have completed more than half the requirements  
19 towards a Master of Business Administration at St. Louis  
20 University.

21 Q Are you a registered professional engineer?

22 A Yes. I am a registered professional engineer  
23 in the states of Missouri, Illinois, and Iowa.

24 Q Are you familiar with the subject matter of  
25 this proceeding?



1           A     Yes.

2           Q     Mr. Merlo, I hand you a copy of what has  
3 been marked Company Exhibit 1 and ask you to identify it.

4           A     This exhibit starts with a letter dated  
5 December 20, 1979, to Mr. D. Michael Hearst, Secretary,  
6 Missouri Public Service Commission, and is signed by  
7 Stewart W. Smith, Jr., Executive Vice President, Union  
8 Electric Company.

9                     The letter states that the accompanying sheets  
10 are issued by Union Electric for filing as a revision of  
11 their schedule of rates for electric service. The attached  
12 sheets detail the changes requested for incandescent lighting  
13 in regard to maintenance. Attached are three tariff sheets  
14 regarding our three different incandescent lighting tariffs  
15 and, also, an Attachment A which compares the incandescent  
16 lighting rates to the replacement mercury vapor lamps. All  
17 of the numbers on both the tariff sheets and the attachment  
18 are correct as of December 20, 1979.

19          Q     Are those numbers correct today?

20          A     These numbers are not correct today due to  
21 a renumbering scheme in the last Missouri electric rate case,  
22 which was effective May 30, 1980.

23                     The correct numbers should be as follows:  
24 The sheet numbered 75(M) with the service classification  
25 No. 13(M) is now Sheet No. 46(M). It also refers to

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1 Class 6(M) rather than Class 13(M). Everything on these  
2 sheets is exactly the same, except the effective date is  
3 now May 30, 1980, and, also, the values for the lights them-  
4 selves, the monthly rates, have been changed at that time.

5 Q Have the monthly rates been changed because  
6 of a rate case in the interim?

7 A Yes. They were changed in relation to the  
8 rate case, which was effective May 30, 1980.

9 The second sheet numbered 81 has been changed  
10 to 57(M). The sheet entitled "81" has been changed to 57(M),  
11 and that referred to service classification No. 14 that is  
12 now service classification No. 8(M).

13 The third sheet filed at that time was  
14 numbered 97.5(M). That sheet has been renumbered to 54(M).  
15 On that same sheet, it referred to service classification No. 20.  
16 And that is now service classification 7(M).

17 As referred to before, all text involved in  
18 these sheets is the same as in the filed sheets.

19 CHAIRMAN SLAVIN: Mr. Barnes, do you have  
20 copies of the actually filed tariffs which are current? Is  
21 that one of your exhibits?

22 MR. BARNES: Yes, ma'am.

23 CHAIRMAN SLAVIN: Thank you.

24 BY MR. BARNES:

25 Q Mr. Merlo, I hand you what has been marked

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1 Company Exhibit 2 and ask you to identify it.

2 A This exhibit represents the new service  
3 classification No. 6(M) and includes Page 46(M), which is  
4 the replacement sheet for the first filed sheet in our  
5 original filing letter. It also includes the additional  
6 sheets of that tariff classification.

7 Q Mr. Merlo, I hand you a copy of what has  
8 been marked Company Exhibit 3 and ask you to identify that.

9 A This exhibit is a complete listing of what  
10 is now service classification No. 7(M). It formerly was  
11 service classification No. 20. It includes Sheet 54(M),  
12 which is equivalent to the third sheet on our filing sheet  
13 97.5.

14 Q Mr. Merlo, I hand you what has been marked  
15 Company Exhibit 4 and ask you to identify it?

16 A This exhibit represents the complete service  
17 classification No. 8(M). It includes Sheet 57(M), which is  
18 the replacement for our filing sheet No. 81. It includes  
19 all pages applicable to that tariff classification.

20 Q Finally, Mr. Merlo, I hand you what has been  
21 marked Company Exhibit 5 and ask you to identify it.

22 A This exhibit represents service classification  
23 No. 5, our municipal street lighting mercury vapor and high  
24 pressure sodium service classification. It includes  
25 complete tariff information on mercury vapor and high



1 pressure sodium lighting available to municipalities.

2 Q Mr. Merlo, last December, when Union Electric  
3 filed these proposed tariff changes with the Missouri Public  
4 Service Commission, which changes set a date for the end of  
5 company maintenance of incandescent street lights, did Union  
6 Electric at the same time file similar proposed tariff  
7 changes with the Illinois Commerce Commission and the Iowa  
8 State Commerce Commission?

9 A Yes. On December 20, 1979, Union Electric  
10 filed Advice No. 364 with the Illinois Commerce Commission,  
11 also signed by Stewart W. Smith, Jr., Executive Vice  
12 President, Union Electric Company. This filing of Advice  
13 No. 364 was exactly the same as that filed in Missouri. The  
14 tariff sheet revisions were the parallel revisions of the  
15 Missouri tariffs for incandescent lighting system in Illinois.  
16 This filing was subsequently accepted and effective on  
17 January 21, 1980, within the 30-day limitation of the  
18 initial filing.

19 In Iowa, on December 20, 1979, we also filed  
20 with the Iowa State Commerce Commission the same equivalent  
21 filing of street light changes. That filing was also  
22 accepted and put into effect on or after January 21, 1980,  
23 within the prescribed 30-day period.

24 MR. BARNES: Mr. Examiner, that completes my  
25 direct examination of Mr. Merlo. I offer him for any

1 cross-examination.

2 EXAMINER CADIEUX: Mr. Banks.

3 MR. BANKS: I have no questions, your Honor.

4 EXAMINER CADIEUX: Mr. Brady.

5 MR. BRADY: City has no questions, your Honor.

6 MR. KAY: No questions.

7 MR. CARL: Just a very brief question,

8 Mr. Merlo.

9 QUESTIONS BY MR. CARL:

10 Q The quotation of the luminosity in those  
11 tariffs, each rate is coupled with a given luminosity from  
12 the figures, I would ask you whether those are measured out-  
13 put from the fixtures or the stock catalog luminosity of  
14 bulbs as they exist by themselves?

15 A In order to be standard for all, they are the  
16 equivalent book or catalog type.

17 Q In other words, it does not reflect the out-  
18 put of the fixtures.

19 Thank you.

20 MR. BRADY: I would like to hear his answer  
21 for the record to the question. I can phrase it again, but  
22 Mr. Carl phrased it.

23 EXAMINER CADIEUX: Mr. Merlo, did you have a  
24 further response?

25 WITNESS MERLO: What I stated was correct.

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1 If I could comment on Mr. Carl's. I did not say that it was  
2 not the output measured on the street. I said it was the  
3 catalog listing, which is an equivalent.

4 MR. BRADY: An equivalent of--excuse me.

5 EXAMINER CADIEUX: Go ahead, Mr. Brady.

6 MR. BRADY: An equivalent of what, Mr. Merlo?

7 WITNESS MERLO: It is the equivalent output  
8 of that fixture according to the manufacturer.

9 MR. BRADY: It's an equivalent output of the  
10 light?

11 WITNESS MERLO: Right, of the light.

12 MR. BRADY: It is not in a luminaire or  
13 contained in a fixture?

14 WITNESS MERLO: No, sir. That is correct.

15 MR. BRADY: Thank you.

16 EXAMINER CADIEUX: Mr. Barnes, do you have  
17 any redirect or anything additional?

18 MR. BARNES: No.

19 QUESTIONS BY CHAIRMAN SLAVIN:

20 Q I don't in any way hold myself out to be an  
21 expert on street lighting, but I have read a number of  
22 articles which suggest that, I believe, your high pressure  
23 sodium lights are a great deal more energy efficient than  
24 the mercury vapor.

25 Could you tell me what percentage of your



1 lighting in your service area is high pressure sodium and  
2 how much of it is mercury vapor, and if there are any plans  
3 of the company to make conversion if, in fact, it is a more  
4 efficient lighting system?

5 A I can make available the exact percentages of  
6 mercury vapor and high pressure sodium on our system. I  
7 don't have that with me now, and I would have to check to  
8 see if any of our other people do. But I can provide that  
9 number for you.

10 The high pressure sodium, as you state, is  
11 more efficient on the lumens per watt rating. We do have  
12 it available in this service class No. 5. It is available  
13 to municipalities at this time in two sizes. At this time  
14 we are also studying its practicability in being offered in  
15 smaller sizes. Industry advances in that area may make it  
16 possible to offer that in smaller sizes in the future.

17 Q Who would be interested in the smaller sizes;  
18 what type of customer?

19 A Municipalities, possibly, for certain  
20 residential requirements and, also, private dusk to dawn  
21 applications.

22 Q I think I did give you a lot of questions at  
23 once.

24 What is the plan of the company to convert  
25 to this more efficient system; is it only embodied in your

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1           A     The only high pressure sodium that is  
2 presently available is embodied in rate class No. 5. Other  
3 sizes are under study for offering.

4           Q     Would you just summarize to me how a  
5 conversion would be made and what it would cost for a  
6 municipality changing from a mercury vapor to a high  
7 pressure sodium?

8           MR. BARNES: Madam Chairman, I don't want to  
9 interrupt, but possibly some of these questions would be  
10 better directed to our two subsequent witnesses who are  
11 specialists in just the kinds of questions you are asking  
12 Mr. Merlo.

13           CHAIRMAN SLAVIN: Fine. That concludes my  
14 questions of Mr. Merlo.

15           EXAMINER CADIEUX: Is there anything further  
16 of this witness?

17           (No response.)

18           EXAMINER CADIEUX: Are there any objections  
19 to Company Exhibits 1 through 5?

20           (No response.)

21           EXAMINER CADIEUX: If not, they are received  
22 at this time.

23           (EXHIBITS NOS. 1 TO 5 WERE RECEIVED IN  
24 EVIDENCE AND MADE A PART OF THIS RECORD.)

25           EXAMINER CADIEUX: The witness is excused.  
Thank you.

1 (Witness excused.)  
2

3  
4 EXAMINER CADIEUX: Mr. Barnes, you may call  
5 your next witness.

6 MR. BARNES: I would like to call Mr. Ronald  
7 Zdellar to the witness stand.

8 (Witness sworn.)  
9

10 RONALD ZDELLAR testified as follows:

11 DIRECT EXAMINATION BY MR. BARNES:

12 Q Please state your name and address for the  
13 record.

14 A My name is Ronald C. Zdellar. I reside in  
15 St. Louis County.

16 Q By whom are you employed?

17 A By Union Electric Company.

18 Q How long have you been employed by Union  
19 Electric Company?

20 A Just a little under ten years.

21 Q What positions have you held with the company  
22 and for how long?

23 A I was an assistant engineer in the special  
24 studies department of the transmission and distribution  
25 function for approximately two and a half years. I worked  
as an assistant engineer and an engineer in the corporate



1 planning and rate department for approximately two years.  
2 And now I've been in my present position of supervisor of  
3 cost control in the transmission and distribution department  
4 for five years.

5 Q What are your duties now?

6 A At the present time, I am responsible for  
7 the presentation and preparation of the annual budget for  
8 the entire transmission and distribution department. As a  
9 staff group, we are continually involved in the analysis of  
10 company policy related to distribution system, construction,  
11 operation, and maintenance. My group develops most costs  
12 used in internal decision-making within that department at  
13 Union Electric. We have developed numerous costs used by  
14 Union Electric in other commission proceedings.

15 Q What is your educational background?

16 A I have a Bachelor of Science degree in  
17 electrical engineering from Washington University. I also  
18 have a Master's degree in business administration from the  
19 same university.

20 Q Are you familiar with the subject matter of  
21 this proceeding?

22 A Yes. Last December, Union Electric filed  
23 with the Commission certain proposed changes for its  
24 incandescent street lighting tariffs. In particular, the  
25 company proposed to amend its service classifications No. 6(M),