

EXHIBIT NO.:
WITNESS: Derick O. Dahlen
TYPE OF EXHIBIT: Prepared Rebuttal
Testimony
SPONSORING PARTY: MOPSC Staff
CASE NO: HO-86-139

MISSOURI PUBLIC SERVICE COMMISSION
UTILITY DIVISION

KANSAS CITY POWER AND LIGHT COMPANY
CASE NO. HO-86-139

PREPARED REBUTTAL TESTIMONY
OF
DERICK O. DAHLEN

JEFFERSON CITY, MISSOURI
APRIL 3, 1987

Exhibit No. 29
Date 4/3/87 Case No. HO-86-139
Reporter Derick O. Dahlen

OFFICIAL CASE FILE
MISSOURI PUBLIC SERVICE COMMISSION

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the matter of the investigation
of steam service rendered by
Kansas City Power & Light Company.

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Case No. HO-86-139

AFFIDAVIT OF DERICK O. DAHLEN

STATE OF MISSOURI

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COUNTY OF COLE

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Derick O. Dahlen, of lawful age, on his oath states: That he has participated in the preparation of the attached written rebuttal testimony and attached appendices/schedules in question and answer form, consisting of 4 pages of rebuttal testimony to be presented in the above case, that the answers in the attached written rebuttal 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.



Derick O. Dahlen

Subscribed and sworn to before me this 8th day of April, 1987.



JUDY FRITSCH Notary Public

NOTARY PUBLIC STATE OF MISSOURI
COLE CO.

MY COMMISSION EXP. JULY 31, 1989
ISSUED THRU MISSOURI NOTARY ASSOC.

My Commission expires _____

1 | **PREPARED REBUTTAL TESTIMONY**

2 | **OF**

3 | **DERICK O. DAHLEN**

4 | **KANSAS CITY POWER AND LIGHT COMPANY**

5 | **CASE NO. HO-86-139**

6 |

7 | Q. Would you state your name please?

8 | A. My name is Derick O. Dahlen.

9 | Q. Have you testified previously in this case?

10 | A. Yes. I previously submitted direct testimony regarding:

- 11 | ● Proposals to purchase the Kansas City Power & Light Company (KCPL) dis-
- 12 | trict heating system,
- 13 | ● Freezing current rates,
- 14 | ● The cost of district heating and individual building boilers,
- 15 | ● KCPL's plan to install electric boilers, and
- 16 | ● Service territory abandonment.

17 | Q. What is the purpose of your rebuttal testimony?

18 | A. My rebuttal testimony is in response to the direct testimony of Company witness

19 | Beaudoin and the "Downtown Steam System Conversion Study" (Conversion Study)

20 | attached to Mr. Beaudoin's testimony as Schedule 1. The conclusions and findings

21 | of the Conversion Study are different than the results of my analyses.

22 | Q. With what Conversion Study conclusions and findings do you disagree?

23 | A. I disagree with Conversion Study conclusions regarding:

- 24 | ● The required price for steam if current customer levels are maintained,
- 25 | ● The general conclusion regarding continued operation of the steam system

coupled with rehabilitation of the distribution system,

- The major boiler replacement options considered to be feasible in the Conversion Study, and
- The limited scenarios investigated in the Conversion Study.

Q. What does the Conversion Study conclude regarding the required price for steam if current customers levels are maintained?

A. The Conversion Study concludes on page 8 that "Maintaining current customer levels, the Grand Avenue scenario would require future rates to more than double the current price of \$10.00/Mlb to meet operating costs and return requirements at current customer levels."

Q. Is this conclusion consistent with your analysis?

A. No. The projected 1987 steam rate presented in my testimony for an efficiently run system is \$11.08 per Mlb. (at current customer levels) which is considerably less than the \$20.00 per Mlb. which the Company claims it needs.

Q. What is the general conclusion presented in the Conversion Study regarding the continued operation of the steam system?

A. The Conversion Study states on page 9 that "Operating Grand Avenue Station over the next 15 years as a central steam production source, coupled with rehabilitating the Downtown underground steam distribution system, is not economical."

Q. What is your conclusion regarding continued operation of the Kansas City district heating system?

A. As stated in my direct testimony, steam could be produced from a central steam system at 1987 prices of between \$11.08 and \$13.83 per Mlb. which is comparable to the prices charged for steam sold by other district heating systems in the United States.

Q. What major boiler options were considered feasible for continued steam service

1 from Grand Avenue Station?

2 A. The Conversion Study reports that four options were considered:

- 3 • Minimum capital investment in existing equipment necessary to maintain
4 equipment,
5 • Replace existing coal-fired boilers with newer technology coal-fired boilers,
6 • Replace existing coal-fired boilers with electric-energized boilers, and
7 • Retain existing boilers to supply winter load and install electrode boilers to
8 serve summer load.

9 Q. What option for central steam generation was not considered?

10 A. Installation of gas-fired boilers was not considered to be a "major option" in the
11 Conversion Study. Gas-fired boilers are the source of steam for the district heating
12 system alternative presented in my direct testimony and produce lower cost than the
13 alternatives presented in the Conversion Study. KCPL is presently producing steam
14 with natural gas as the least cost alternative which also suggests that natural gas-
15 fired boilers should have been considered as a major boiler option.

16 Q. What are the key variables in the options selected for analysis presented on page 7.2
17 of the Conversion Study?

18 A. The options presented on page 7.2 included:

- 19 • Continued operation at Grand Avenue Station,
20 • Conversion to Electrode and Electric Boilers,
21 • Replacing existing low pressure distribution system,
22 • The several boiler options previously described,
23 • Retaining all customers, and
24 • Losing 60% of sales.

25 Q. What options could have been considered that might have resulted in lower rates?

1 A. There are several options that could have been considered that might have resulted
2 in lower rates including:

- 3 ● Gas-fired boilers, as I previously testified,
- 4 ● Replacement of the low-pressure distribution system with high-pressure
5 distribution, as Mr. Miller testified, and
- 6 ● Increases in sales as the result of marketing, as I testified in my direct
7 testimony.

8 Q. Does this conclude your rebuttal testimony?

9 A. Yes. It does.

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