EXHIBIT NO.: WITNESS: TYPE OF EXHIBIT:

Derick O. Dahlen
Prepared Rebuttal

Testimony

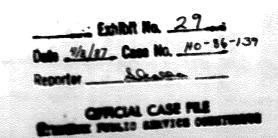
SPONSORING PARTY: MOPSC Staff CASE NO: HO-86-139

# MISSOURI PUBLIC SERVICE COMMISSION UTILITY DIVISION

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

OF
DERICK O. DAHLEN

JEFFERSON CITY, MISSOURI APRIL 3, 1987



## BEFORE THE PUBLIC SERVICE COMMISSION

## OF THE STATE OF MISSOURI

In the matter of the in of steam service render Kansas City Power & Lig	red by	)	Case No. HO-	86-139
	AFFIDAVIT OF DER	ICK O. DAHI	.EN	
STATE OF MISSOURI COUNTY OF COLE	) ) ss )			
Derick 0. Dal participated in the pr and attached appendice of 4 pages of rebutts the answers in the att that he has knowledge such matters are true	s/schedules in qual testimony to be ached written rel of the matters s	attached wiestion and e presented outtal test et forth in	ritten rebutt answer form in the above imony were go such answer	al testimony, consisting e case, that iven by him;
	L	) eich	Olak	ler
			ck O. Dahlen	
Subscribed and sworn t	o before me this	9th day	of April, 19	87.
		Judia	Fritzel	j
	=1	LIC STATE OF WESS	otary Public	
		COLE CO. ION EXP. JULY 31, MISSOURI MOTARY		
My Commission expires				

#### PREPARED REBUTTAL TESTIMONY OF DERICK O. DAHLEN KANSAS CITY POWER AND LIGHT COMPANY CASE NO. HO-86-139 6 7 | . O. Would you state your name please? 8 My name is Derick O. Dahlen. Α. 9 | Q. Have you testified previously in this case? 10 Yes. 1 previously submitted direct testimony regarding: Α. 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 1 Service territory abandonment. 17 What is the purpose of your rebuttal testimony? Q. 18 My rebuttal testimony is in response to the direct testimony of Company witness A. 19 1 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 With what Conversion Study conclusions and findings do you disagree? Q. 23 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

droate treate coupled with rehabilitation of the distribution system. 2 1 The major boiler replacement options considered to be feasible in the Con-3 version Study, and 4 The limited scenarios investigated in the Conversion Study. 5 Q. What does the Conversion Study conclude regarding the required price for steam if 6 current customers levels are maintained? 7 A. The Conversion Study concludes on page 8 that "Maintaining current customer 8 levels, the Grand Avenue scenario would require future rates to more than double 9 the current price of \$10.00/Mlb to meet operating costs and return requirements at 10 current customer levels." 11 Q. Is this conclusion consistent with your analysis? 12 No. The projected 1987 steam rate presented in my testimony for an efficiently run Α. 13 system is \$11.08 per Mlb. (at current customer levels) which is considerably less than 14 the \$20.00 per Mlb. which the Company claims it needs. 15 Q. What is the general conclusion presented in the Conversion Study regarding the con-16 tinued operation of the steam system? 17 A. The Conversion Study states on page 9 that "Operating Grand Avenue Station over 18 the next 15 years as a central steam production source, coupled with rehabilitating 19 the Downtown underground steam distribution system, is not economical." 20 Q. What is your conclusion regarding continued operation of the Kansas City district 21 heating system? 22 As stated in my direct testimony, steam could be produced from a central steam sys-A. 23 tem at 1987 prices of between \$11.08 and \$13.83 per Mlb. which is comparable to the 24 prices charged for steam sold by other district heating systems in the United States. What major boiler options were considered seasible for continued steam service 25 Q.

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

### Prepared Rebuttal Testimony of Derick O. Dahlen Page 4

- A. There are several options that could have been considered that might have resulted in lower rates including:
  - Gas-fired boilers, as I previously testified,
  - Replacement of the low-pressure distribution system with high-pressure distribution, as Mr. Miller testified, and
  - Increases in sales as the result of marketing, as I testified in my direct testimony.
- Q. Does this conclude your rebuttal testimony?
- A. Yes. It does.