

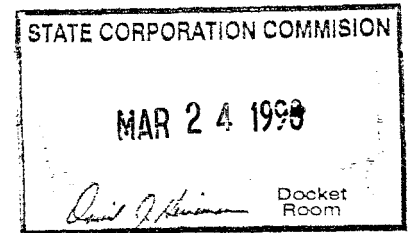


MARTIN J. BREGMAN
General Attorney, Regulation

March 24, 1998

HAND DELIVERED

David Heinemann
Executive Director
Kansas Corporation Commission
1500 SW Arrowhead Road
Topeka, Kansas 66604




Re: **Docket No. 97-GIME-483-GIE**

Mr. Heinemann:

Please find enclosed the original and eight copies of the 1997 Line Clearance Information in response to the April 24, 1997 and February 26, 1998 Orders issued by the Commission in the above referenced docket.

Please file stamp the extra copy for our files.

Sincerely.


Martin J. Bregman

MJB/pb
Enclosures
cc: All Parties

KANSAS CORPORATION COMMISSION
DOCKET NO. 97-GIME-483-GIE
KPL AND KGE
1997 LINE CLEARANCE INFORMATION
AND
ELECTRICAL SYSTEM RELIABILITY - SUSTAINED INTERRUPTION INDICES

A. Annual tree trimming expenditures:**

<u>Year</u>	<u>KPL</u>	<u>KGE</u>	<u>Total</u>
1997	3,371,844	2,094,939	\$5466,783
1996	3,205,830	1,620,377	\$4,826,207
1995	3,037,234	1,895,429	\$4,932,663
1994	3,986,887	1,639,756	\$5,626,643

B. Annual hours of labor devoted to tree trimming:**

<u>Year</u>	<u>KPL</u>	<u>KGE</u>	<u>Total</u>
1997	133,737	74,988	208,725
1996	97,770	51,366	149,136
1995*	124,364	4,022	128,386
1994*	109,174	5,101	114,275

* Statistics for the KGE distribution system are unavailable for these years

C. Annual performance statistics for tree trimming including, but not limited to, trees trimmed and trees removed:**

<u>Year</u>	<u>Trim Units</u>	<u>Remove Units</u>	<u>Total Units</u>	<u>Total Units/MH</u>
1997 KPL	55,712	224,512	280,224	2.1
1997 KGE	52,601	38,910	91,511	1.2
Total	108,313	263,422	371,735	1.8
1996 KPL	55,593	116,026	171,619	1.8
1996 KGE	48,573	20,500	69,073	1.3
Total	104,166	136,526	240,692	1.6
1995 KPL	73,444	127,486	200,930	1.6
1995 KGE *	1,673	12,930	14,603	3.6
Total	75,117	140,416	215,533	1.7
1994 KPL	85,270	97,416	182,686	1.7
1994 KGE *	2,850	16,988	19,838	3.9
Total	88,120	114,404	202,524	1.8

* Statistics for the KGE distribution system are unavailable for these years

** Statistics reflect O & M expenditures only and do not include Capital expenditures

KANSAS CORPORATION COMMISSION
DOCKET NO. 97-GIME-483-GIE
KPL AND KGE
1997 LINE CLEARANCE INFORMATION
AND
ELECTRICAL SYSTEM RELIABILITY - SUSTAINED INTERRUPTION INDICES

D. System reliability indices:

1997**		<u>All Causes</u>		
		SAIDI	SAIFI	CAIDI
Actuals	KPL	119.911	1.763	68.00
(UnNormalized)	KGE	117.105	1.3781	84.00
Normalized	KPL	111.701~	1.745	64.00
	KGE	104.668	1.342	78.00

The storms that were normalized for 1997 occurred on April 11 in the Kinsley and McPherson service areas and on June 12 and 13 in the Wichita service area.

1996**		<u>All Causes</u>		
		SAIDI	SAIFI	CAIDI
Actuals	KPL	303.394	2.389	127.00
(UnNormalized)	KGE	136.217	1.584	86.00
Normalized	KPL	170.480	2.105	81.00
	KGE	136.217	1.584	86.00

1995"		<u>All Causes</u>		
		SAIDI	SAIFI	CAIDI
Actuals	KPL	140.851	1.705	82.59
(UnNormalized)	KGE	173.1531	2.047	84.59
Normalized	KPL	102.098	1.377	74.13
	KGE	141.1921	1.889	74.75

1994*		<u>All Causes</u>		
		SAIDI	SAIFI	CAIDI
Actuals	KPL	408.856	2.284	178.98 i
(UnNormalized)	KGE	437.502	2.109	207.45
Normalized	K P L	78.699	1.478	53.25
	KGE	99.479	2.066	48.16

Note: Prearranged, momentary and incidents with no customers are excluded from the totals,

Normalization requires manual consideration of the following 3 factors:

1. Outside crews were called to support restoration work
2. Restoration times were greater than 24 hours
3. The Serving Offices' customer outage minutes for the day under consideration must be greater than 2.5 times the monthly normal values

* 1994 & 1995: During the period 1993-1996, the KPL service territory was being gradually implemented into the Distribution Database. During that time, for localities not yet implemented into the system, estimated data was used. Calculations were determined by averaging each month's data and then calculating an annual average based on those monthly averages. Interruptions are those customer outages which are equal to or exceed one (1) minute in duration.

** 1996 & 1997: Interruptions are those customer outages which exceed five (5) minutes in duration.

KANSAS CORPORATION COMMISSION
DOCKET NO. 97-GIME-483-GIE
KPL AND KGE
1997 LINE CLEARANCE INFORMATION
AND
ELECTRICAL SYSTEM RELIABILITY - SUSTAINED INTERRUPTION INDICES

Summary of the condition of line clearance at time of reporting:

The current line clearance policy was developed in 1992 and early 1993. This policy provides guidelines which are necessary to ensure the safe and reliable delivery of electric energy.

The line clearance manual outlines a minimum clearance of 12 feet (more if possible) on primary distribution circuits, a minimum clearance of 18 feet (more if possible) on 34 kV and 69 kV circuits and a minimum of 25 feet (more if possible) on transmission circuits of 115 kV and above. These guidelines are in accordance with the practices normally accepted throughout the industry.

Pruning cuts are made utilizing the natural pruning methods (drop-crotch trimming) which were developed by the National Arborist's Association and endorsed by the International Society of Arboriculture. This natural pruning method was developed from extensive research on tree physiology to enhance the natural wound healing process of the tree. When a tree is removed, the stump is treated with an approved herbicide which prevents re-sprouting and re-growth from the tree's root system. During a storm emergency, the material pruned is left for the customer or other agency (city or county) to clean up in order to speed the restoration of service.

Transmission line clearance work uses a combination of mechanical clearing (mowing of right-of-ways and trimming close to lines that traverse urban areas) and herbicide chemical application. Distribution line clearance work is done entirely by mechanical trimming except for stumps remaining after trees are removed, which are treated with herbicide to prevent re-growth.

Contractors are used almost entirely for line clearance in the KPL and KGE systems. Distribution line clearance activities are coordinated by a newly appointed Manager of Line Clearance Operations; transmission line clearance activities are coordinated by Technical Operations personnel. Prior to trimming, the contractor notifies the landowner that trimming will be done. Permission is obtained only for the removal of trees.

Circuit interruption statistics have been established relative to customer minutes outage data and the number of interruptions. Reports based on these statistics using information from the Trouble Order System have allowed KPL and KGE to prioritize circuits for attention by contract crews. This program, based on centralization and standardization, is driven by interruption statistics.

In order to help educate the public how to plant trees and landscape to avoid overhead and underground lines, a brochure has been developed entitled "Landscaping Landmarks." This brochure is distributed to the public by nurseries and other outlets where trees are purchased. A copy of this brochure is enclosed.