	ApprovedFebruary 25, 1983
	Date
MINUTES OF THE COMMITTEE ON	TRANSPORTATION AND UTILITIES
The meeting was called to order bySENATOR ROBE	RT V. TALKINGTON at
The meeting was cance to order by	Chairperson
9:00 a.m. a.m./p.m. on Friday, February 25	
All members were present except:	1
Senator Norvell	Labert V. Julytan
Committee staff present:	
Fred Carman	

Conferees appearing before the committee:

Hank Avila Rosalie Black

SB 237 - Senator William Mulich
James Haines, Attorney, KG&E
Ed Schaub, Southwestern Bell
Ed Peterson, Attorney, KCC
Harold Shoaf, KS Electric Cooperatives
Blake McGuire, Sunflower Electric Coop

SB 222 - Bill Brown, Vice Pres., KPL and Harold Shoaf, KS Electric SB 205 Cooperatives

The meeting was called to order by Senator Talkington, Chairman, who announced that Senate Bill 222 and Senate Bill 205 would be discussed today since lack of time prevented completion of Hearings on February 23.

SENATE BILL 222 and Senate Bill 205

Bill Brown opposed SB 222 which allows KCC to establish a "conservation rate" for residential customers for the use of electricity and gas. He recommended a better solution to encourage both conservation of energy and reduction of peak. These include the KCC's orders in 1976 setting minimum thermal standards for new homes and efficiency standards for air-conditioning, the ACT or audit for conservation today programs of the utilities and KCC, the insulation and weatherization programs of several agencies and the peak management rates and load management programs being developed and offered by the utilities.

Mr. Brown also opposed SB 205 which will reduce the costs for those over age 62 or disabled customers whose income does not exceed \$8,000 on the basis that when the price of gas is reduced below its costs for one segment of the population, the difference must be made up from some other source. He mentioned this could increase cost to low-income single parent families, the unemployed or those whose incomes are just marginally above \$8,000. (See Attachment 1.)

Harold Shoaf pointed out that any system of rate structure not based on cost

CONTINUATION SHEET

effectiveness will be detrimental to the production of agricultural products in our state and to the thousands of farmers and ranchers who are the consumer members of Kansas rural electric cooperatives. (See Attachment 2.)

SENATE BILL 237

Senator Mulich explained that the bill would subject generation and transmission facilities now under construction or those planned for the immediate future to more than one examination by the KCC for reasonableness and necessity. He asked for support of the act which he indicated should have been done a long time ago.

Speaking on behalf of the Electric Companies Association of Kansas, James Haines told the Committee that there are tremendous economic advantages to building the largest feasible generating facility. However, if SB 237 is implemented into law, it would encourage electric utilities to build the smallest possible power plants despite their increased cost. (See Attachment 3.)

After a brief statement opposing SB 237, Harold Shoaf introduced Blake McGuire.

Mr. McGuire noted that under this act, a utility could do no planning other than what would result in immediate solutions to immediate problems. He added that carried to its logical conclusion, a utility would need to experience a "brown out" before it would risk the expenditures of funds on additional facilities on which it may not receive a rate of return until such an immediate need was demonstrated. (See Attachment 4.)

Ed Peterson said that the bill should not apply to those public utilities that have already received a siting permit from KCC. The act would give the Commission the flexibility needed to address a number of situations by providing clear authority. (See Attachment 5.)

Ed Schaub referring to an example of providing telephone service under this legislation for 100 new homes, indicated that the utility could not do long range planning as they do now. Instead, the utility would not involve itself until the homes were finished and residents had moved in. This would present long delays of telephone service and cost more in the long run.

The meeting adjourned at 9:58 a.m.

Please PRINT Name, Address, the organization you represent, and the Number of the Bill in which you are interested. Thank you.

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	NAME	ADDRESS	ORGANIZATION	BILL NO.
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	Harved She	ref 11	KEC	222-237
	BLAKE MEGUIRE	V HAYS	SUNFROWER ELECTER COC	up 237
•	Jun Haines	WICHITA	KG &E	~ 3°q
***	D.WAYNE ZIMME		THE ELECTRIC CO. A.S.	SOCIOE KS 222-237
-	Roy D. Shonko			
	Ed Reiner	f Topeko	LWV	237
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attachment 1

STATEMENT OF WILLIAM E. BROWN - VICE PRESIDENT THE KANSAS POWER AND LIGHT COMPANY ON SENATE BILL No. 205

MR. CHAIRMAN, MEMBERS OF THE COMMITTEE

I AM WILLIAM E. BROWN, VICE PRESIDENT OF THE KANSAS POWER AND LIGHT COMPANY.

I AM HERE TODAY TO SPEAK IN OPPOSITION TO SENATE BILL NO. 205. WE ARE OPPOSED TO THIS BILL AND THE CONCEPT OF "LIFELINE" RATES SINCE THEY ARE NOT AN EFFECTIVE ANSWER TO THE OVERALL ECONOMIC PROBLEMS FACED BY MANY KANSANS AND THEY MAY IN FACT CREATE SIGNIFICANT ADDITIONAL PROBLEMS.

THE COSTS OF UTILITY SERVICE NECESSARY TO PROVIDE HEATING, COOKING, WATER HEATING AND OTHER VITAL SERVICES HAS RISEN DRAMATICALLY IN THE LAST SEVERAL YEARS IMPOSING INCREASING BURDENS ON LOW INCOME AND ELDERLY CONSUMERS. THE EFFECTS OF THESE RISING PRICES IS MADE WORSE SINCE MANY OF THESE PEOPLE LIVE IN OLDER HOMES THAT ARE NOT WELL INSULATED. MANY CANNOT AFFORD TO INSULATE OR THEY LIVE IN RENTAL PROPERTY WHERE LANDLORDS CANNOT UPGRADE THE HOME WITHOUT RAISING THE RENT.

"LIFELINE" RATES ARE PROPOSED TO PROVIDE A MINIMUM LEVEL OF SERVICE
AT REDUCED PRICES TO CERTAIN TARGETED SUBCLASSES OF RESIDENTIAL CUSTOMERS.

The objectives can only be acheived if we assume that low income households generally use smaller amounts of energy and can or will limit their consumption to necessary use. This assumption is tenuous at best and research correlating income level to energy use is showing mixed results. A study done for the State Corporation Commission in May 1981, a Department of Energy Study completed in July 1980, and a Wisconsin report quoted in the Kansas study state that "there seems to be a weak income-consumption relationship for both electricity

AND NATURAL GAS CONSUMPTION." IF THIS IS TRUE, REDUCING THE COSTS
FOR A CERTAIN USE MAY WELL MAKE THE PROBLEM WORSE FOR OTHER LOW-INCOME
CUSTOMERS WHO MUST USE MORE ENERGY THAN THE SPECIFIED LEVEL.

To continue to provide adequate reliable service a utility must recover the full costs of service. When the price of gas is reduced below its costs for one segment of the population the difference must be made up from some other source. The revenue deficit must be recovered from either other residential customers or from commercial and industrial customers. Senate Bill No. 205 will reduce the costs for those over 62 or disabled customers whose income does not exceed \$8,000. If the shortfall is to be recovered from other residential customers, it may well increase costs to low-income single parent families, the unemployed, or those whose incomes are just marginally above \$8,000.

Once a special group is singled out for preferential treatment in utility rates, where does it end. Cannot good cases be made for the groups I've already mentioned or others.

IF CARRYING THE BURDEN IS TO GREAT FOR OTHER RESIDENTIAL CUSTOMERS, WHAT ABOUT COMMERCIAL AND INDUSTRIAL CUSTOMERS? SMALL BUSINESS, SCHOOL DISTRICTS, HOSPITALS OR INDUSTRY? WHICH OF THESE BUDGETS ARE NOT ALREADY TIGHT.

A NOTABLE FAILURE IN SOCIAL PRICING HAS BEEN TRIED BY THE FEDERAL GOVERNMENT IN THEIR REQUIRED INCREMENTAL PRICING REGULATIONS FOR CERTAIN INDUSTRIAL CUSTOMERS. THEIR PLAN WAS TO HOLD DOWN THE COSTS OF GAS TO RESIDENTIAL AND SMALL COMMERCIAL CUSTOMERS BY SETTING VERY HIGH PRICES FOR GAS TO THESE INDUSTRIES. WHAT HAPPENED? THE INDUSTRIES SWITCHED TO OTHER FUELS OR IN SOME CASES WENT OUT OF BUSINESS RESULTING IN ULTIMATELY EVEN HIGHER RATES FOR THE SMALL CUSTOMERS AND A REDUCTION IN JOBS.

THE CONCLUSION FOUND IN OKLAHOMA MAY WELL APPLY IN KANSAS, WHEN THE GOVERNORS ADVISORY COUNCIL ON ENERGY CONCLUDED THAT IF THE DEFICIT IS TO BE RECOVERED FROM COMMERCIAL AND INDUSTRIAL CUSTOMERS "OKLAHOMA'S COMPETITIVE POSITION FOR INDUSTRY (AND THUS EMPLOYMENT OPPORTUNITIES) COULD BE SERIOUSLY FLAWED."

THE DOE STUDY MAKES THIS CONCLUSION, "CONSEQUENTLY, THE FINDINGS

JANNOT BE USED TO SUPPORT THE VIGOROUS ADVOCACY OF EXPANDED APPLICA. ON OF LIFELINE RATES." IT FURTHER RECOMMENDS "POTENTIALLY MORE EFFECTIVE NON-RATE POLICIES FOR DELIVERING ENERGY ASSISTANCE TO LOW INCOME HOUSEHOLDS." THE WISCONSIN STUDY CONCLUDED THAT DIRECT CASH TRANSFERS AND ENERGY STAMP PROGRAMS HAVE THE HIGHEST DEGREE OF TARGET EFFICIENCY.

LOW INCOME KANSANS NEED IMMEDIATE AND DIRECT ASSISTANCE PROGRAMS TO HELP PAY HEATING BILLS, BUT THIS ASSISTANCE IS ONLY A SHORT TERM SOLUTION TO THE PROBLEM.

THE ONLY LONG TERM SOLUTION ARE PROGRAMS AND ASSISTANCE IN WEATHERIZATION AND INSULATION INCLUDING POSSIBLE DIRECT GRANTS TO LOW INCOME CITIZENS AND EXPANDED TAX CREDITS ON RENTAL PROPERTY SO THAT LANDLORDS WOULD BE ENCOURAGED TO INSULATE.

THE PROBLEM OF PROVIDING BASIC NECESSITIES IS A SOCIETAL PROBLEM. ALTERING COST BASED UTILITY RATES TO HELP SELECTED GROUPS WON'T SOLVE THE PROBLEM AND IT MAY MAKE OTHER PROBLEMS WORSE. IF KANSAS CITIZENS ARE RESPONSIBLE TO PROVIDE THESE BASICS, LETS DO IT STRAIGHT FORWARD WITH PROPERLY DESIGNED GOVERNMENTAL PROGRAMS.

attachment 1

STATEMENT OF WILLIAM E. BROWN - VICE PRESIDENT THE KANSAS POWER AND LIGHT COMPANY ON SENATE BILL No. 222

MR. CHAIRMAN, MEMBERS OF THE COMMITTEE

I AM WILLIAM E. Brown, Vice President of the Kansas Power and Light Company and I am speaking on behalf of the Electric Companies Association of Kansas.

WE ARE OPPOSED TO SENATE BILL NO. 222 SINCE IT WILL NOT EFFICIENTLY PROMOTE CONSERVATION AND REDUCE UTILITY COSTS. IN FACT IN THE SHORT RUN IT WILL INCREASE COSTS FOR MANY AND MAY IN THE LONG RUN INCREASE COSTS FOR ALL.

As set out in the bill "conservation rates" based on volume can only be considered inverted block rates or "lifeline rates" applied to the whole residential class and not just to targeted few.

INVERTED BLOCK RATES CAN BE DESCRIBED AS RATES IN WHICH THE FIRST SEVERAL UNITS OF ENERGY OR BLOCK OF ENERGY IS AT A LOW PRICE AND ALL ADDITIONAL ENERGY AT A HIGHER PRICE. THIS DESIGN HAS NOT BEEN DEMONSTRATED TO FOLLOW ACTUAL COST.

CONSERVATION OR INVERTED BLOCK OR LIFELINE RATES WILL NOT HELP ALL AND IN FACT WILL INCREASE COSTS FOR MANY. THOSE CUSTOMERS WHO LIVE IN OLDER HOMES OR WHO HAVE MADE APPLIANCE OR HEATING AND COOLING CHOICES IN THE PAST AND ARE LARGER USERS OF ENERGY WILL SEE THEIR BILLS INCREASE. TO AVOID THIS, THE INITIAL LOW PRICED BLOCK WOULD HAVE TO BE VERY LARGE. THIS AGAIN WILL PLACE UNRECOVERED COSTS ON OTHER CLASSES.

As I have testified on lifeline rates all the problems associated with ineffectiveness and discrimination also apply to class wide "conservation rates".

BUT, ONE OTHER ECONOMIC FACT EXISTS WHICH IS NOT SOLVED BY THIS APPROACH.

ONLY ABOUT ONE-HALF OF THE COST OF ELECTRIC ENERGY IS BASED ON VARIABLE COSTS THAT CHANGE DIRECTLY WITH THE AMOUNT USED. THE BASIC COMPONENT OF THE VARIABLE COSTS ARE FUEL. FUEL IN KANSAS IS LARGELY COAL OR IN THE FUTURE NUCLEAR ENERGY. THE OTHER COMPONENT OF THE RATES ARE THE FIXED COSTS OF OWNERSHIP, OPERATION AND MAINTENANCE OF THE GENERATION TRANSMISSION AND DISTRIBUTION SYSTEMS. THESE SYSTEMS MUST BE BUILT TO PROVIDE AND DELIVER NOT ONLY THE MONTHLY OR ANNUAL ENERGY NEEDS BUT ALSO THE PEAK DEMAND THAT CUSTOMERS REQUIRE.

An inverted block rate might very well encourage customers to conserve when it is $80^{\rm O}$ or $85^{\rm O}$ but when it is $105^{\rm O}$ they are going to demand service by turning on their air-conditioner. When this occurs we must be ready with all the facilities in place to meet their demand.

AN INVERTED BLOCK RATE MAY REDUCE THE AMOUNT OF COAL BURNED AND AT THE SAME TIME CAUSE US TO SPREAD THE FIXED COSTS OVER A SMALLER NUMBER OF UNITS RAISING THE PRICE OF EACH UNIT IN THE FIRST BLOCK AND THE END BLOCK.

Let Me try and illustrate this by a simplified example. If a customer uses 1000 KWH he would pay about 6 cents per KWH or \$60.00. This same customer could well have a peak demand for energy of 10 kilowatts. The same revenue could be generated by altering the rate structure and pricing the first 500 KWH at 4 cents or \$20.00 and the remaining 500 KWH at 8 cents or \$40.00 for the total of \$60.00. If the customer perceives this new rate correctly he can cut his cost rapidly by using less KWH, so he does not use his air-conditioner when it is below 85°. In doing so he may save 200 KWH or \$16.00.

He conserved, but what did he conserve? He conserved coal which is about half of the cost or 3 cents per KWH and the utilities costs went down by \$6.00. Since on the day it hit 105° he decided to pay 8 cents per KWH no plant or fixed costs are reduced. The resulting shortfall to the utility of \$10.00 (the \$16.00 reduction in payment less the \$6.00 savings in coal) must be respread over the remaining KWH raising their price.

AT THE SAME TIME HIS NEIGHBOR IS A VERY SMALL USER AND NORMALL. WOULD USE 300 KWH IN THAT MONTH. HIS BILL UNDER THE STANDARD RATE WOULD BE \$18.00 (6 CENTS TIMES 300 KWH). UNDER THE NEW CONSERVATION RATE HIS BILL WOULD BE \$12.00 (4 CENTS TIMES 300 KWH). HIS PERCEPTION MIGHT WELL BE THAT HE CAN INCREASE HIS USE BY 33% OR 100 KWH AND STILL PAY LESS THAN BEFORE. HIS NEW BILL WITH GREATER CONSUMPTION WOULD BE \$16.00 (4 CENTS TIMES 400 KWH). IF IN INCREASING HIS USE HE BOUGHT A NEW APPLIANCE, HE MIGHT WELL ADD TO THE PEAK INCREASING THE UTILITIES FIXED COSTS AND INCREASING THE REVENUE SHORTFALL.

THIS LONG EXAMPLE, WHICH WAS SUPPOSED TO BE SIMPLE, SHOWS THAT CONSERVATION RATES DO NOT TRACK UTILITY COSTS AND MAY WELL BE COUNTERPRODUCTIVE IN ACHIEVING CONSERVATION OR REDUCING COSTS.

FAR BETTER SOLUTIONS THAT ENCOURAGE BOTH CONSERVATION OF ENERGY AND REDUCE THE PEAK ARE INPLACE AND WORKING EFFECTIVELY. THESE INCLUDE THE KCC'S ORDERS IN 1976 SETTING MINIMUM THERMAL STANDARDS FOR NEW HOMES AND EFFICIENCY STANDARDS FOR AIR-CONDITIONING, THE ACT OR AUDIT FOR CONSERVATION TODAY PROGRAMS OF THE UTILITIES AND KCC, THE INSULATION AND WEATHERIZATION PROGRAMS OF SEVERAL AGENCIES AND THE PEAK MANAGEMENT RATES AND LOAD MANAGEMENT PROGRAMS BEING DEVELOPED AND OFFERED BY THE UTILITIES.

ALL OF THESE PROGRAMS WILL CONSERVE ENERGY BUT AT THE SAME TIME THEY WILL REDUCE THE CUSTOMERS PEAK DEMANDS AND WILL CONSERVE COSTS.

To further illustrate some of the efforts being made by the utilities, I've attached brochures from my company describing in more detail programs that are available.

"Conservation rates" as set out in Senate Bill No. 222 are counterproductive and should not be established.

SENATE BILL No. 222

EXAMPLE OF CONSERVATION RATES:

PRESENT RATE

6 CENTS PER KWH OF WHICH 3 CENTS PER KWH IS

FOR FUEL.

CUSTOMER A

1000 KWH 10KW DEMAND

PRESENT BILL 6¢ TIMES 1000 KWH = \$60.00

CONSERVATION RATE

4 CENTS PER KWH FOR THE FIRST 500 KWH

8 CENTS PER KWH FOR THE REMAINING KWH

CUSTOMER A

500 KWH TIMES 4¢ = \$20.00

500 KWH TIMES 8 = \$40.00

1000 \$60.00

If customer A saves 200 KWH HE saves

200 KWH TIMES 8¢ = \$16.00

OR PAYS

\$44.00

BUT THE UTILITY ONLY SAVES THE PRICE OF FUEL

200 KWH TIMES $3 = \frac{6.00}{}$

Cost to Utility \$54,00

UNRECOVERED COST \$10.00

CUSTOMER B

300 KWH

PRESENT BILL 6¢ TIMES 300 KWH = \$18.00

Conservation Rate 4¢ times 300 KWH = \$12.00

If the customer increases his consumption by 33% or 100 KWH his bill would be

4\$ TIMES 400 KWH = \$16.00

attachment 2

STIMONY PRESENTED TO THE SENATE TRANSPORTATION AND UTILITIES COMMITTEE, PERTAINING TO SB 222, by Harold Shoaf, February 25, 1983

Mr. Chairman and Members of the Committee, my name is Harold Shoaf. I am Director of Government Relations and Public Affairs for the Kansas Electric Cooperatives. The Kansas Electric Cooperatives (KEC) is the statewide organization of thirty-seven (37) electric cooperatives serving electricity to more than 450,000 Kansans.

As we understand the intent of Senate Bill 222, it is to give the State Corporation Commission authority to allow a certain approved amount of electricity or gas to be sold at a lower rate than larger quantities of either gas or electricity. It seems to us the real issue before this Committee is whether or not the KCC should set rates based on volume or quantity of usage rather than cost of service.

RECs are very concerned regarding legislative mandates which would require implementation of any particular type of rate structure by the Corporation Commission not based on cost of service. We believe that such legislation could not be accomplished without innumerable laws governing each step and each facet of such regulation. Structuring of rates for electric utilities is a complicated, complex issue because rate structures that may benefit one class of consumers, may adversely affect another class of consumers.

It is our opinion that a rate structure not based on cost of service would have a very detrimental affect on the agricultural community of Kansas. RECs serve a very high percentage of farms and ranches in this state. Electricity on these farms and ranches is a production tool that has, through the years, been most instrumental in allowing Kansas farmers and ranchers to improve their efficiency of production so that they rank at the top of the list in efficiency as producers of food and fibre. There is no doubt that such circumstances have been to the benefit of all society. The utilization

of large amounts of electrical power has been a vital contributor to this precedent. Electricity to the farmer is not a luxury, it is a necessity. In general, farmers and ranchers are larger consumers of electrical power than other residential consumers, and a rate schedule change not based on cost of service could be very detrimental to Kansas agriculture. As this Committee is aware, the agricultural economy is in a depressed state. Farmers and ranchers in Kansas are already having difficulty paying their bills, including their electric bills, and any structure of rates which would tend to incur additional costs based on increasing costs of electrical energy used, will adversely affect agriculture.

Much has been said about rate structures to provide relief for the poor and the elderly. Unfortunately, to our knowledge, such rate structures have not produced the desired results in those areas where they have been in effect, such as California, Tennessee, and the country of Italy. According to information we received, the practice of rate structures now in effect in California, as a result of the California State Legislature's mandate, is a nightmare for consumers, state regulators, and the electric utilities. As an example, Pacific Gas & Electric Company says it need 72 different residential rates to conform to the law. Originally the Company had five such rates. Regulatory officials in California say they are not sure what to advise utilities because proper adherence to the law as passed, also requires six different meters on each home. Specifically the California law calls for different rates for lighting, cooking, refrigeration, space and water heating, and different schedules for seasonal periods of the year.

The Tennessee Valley Authority, the largest electric utility in the country, has made a very detailed study regarding the possible

implementation of rate structures not based on cost. Their consensus is that serious problems result in obtaining the objectives which these rates theoretically are designed to produce. The study showed that large numbers of low income familes used substantial amounts of electricity and therefore, the rate structure designed specifically to give a break to those consumers who use small amounts of electric energy would not benefit a high percentage of low income families. The summation of the study indicates that such rate structures would not help those now facing electric bills and could easily end up with low income families actually subsidizing large numbers of low use, but high income families who do not need a rate break.

In Mr. Moline's testimony on House Bill 2816 in 1982, he indicated that the states of Florida and Hawaii expressly rejected lifeline rates because of their potential conservation disincentive. He further stated artifically low prices may stimulate customers to use more electricity than they otherwise would. If the size of the initial block which is deemed essential is relatively large, the conservation disincentive could be substantial.

To the extent rates significantly depart from cost as the basic touchstone on which they are set, the ratemaking process becomes even more publicized and indeed akin to taxation.

Kansas RECs have concern and compassion for the low income and elderly in regard to their financial problems regarding payment of their electric bills. Many of this group of citizens live in rural Kansas and are served by RECs. We are aware that real problems exist for people who are on a fixed income in the payment of escalating energy bills. We think social agencies in this state are in a better

position to serve these needy people. Such social agencies are already established to administer to the needs of these groups of citizens. They have ways of knowing who is deserving of assistance and who is not so deserving.

In summary, we believe that any system of rate structure not based on cost-effectiveness will be detrimental to the production of agricultural products in our state and to the thousands of farmers and ranchers who are the consumer-members of Kansas RECs.

Mr. Chairman and members of the Committee, thank you for this opportunity to express our views on Senate Bill 222.

attachment 3

SENATE BILL NO. 237

STATEMENT OF JAMES HAINES

Electric Companies Association of Kansas

Good Morning. My name is Jim Haines; I am an attorney for Kansas Gas and Electric Company. I appreciate the opportunity you have given me to speak about Senate Bill No. 237. My remarks this morning are on behalf of the Electric Companies Association of Kansas which includes The Kansas Power and Light Company, Kansas City Power & Light Company, Empire District Electric Company, Western Power Division of Centel Company, and, of course, KG&E.

Senate Bill 237 would require the State Corporation

Commission, in a general rate proceeding involving an electric public utility which had just completed a new power plant, to exclude from rate base the value of whatever portion of the new plant the Commission determines to be in excess of system capacity requirements for the year in which the plant is completed and first considered for ratemaking recognition.

A fundamental characteristic of the public utility industry must be understood in order to fully appreciate our concern with Senate Bill 237. A public utility is obliged to meet every financially responsible request for service within its service territory. This obligation to provide service means that a public utility must be willing and able

to supply the needs of its customers on demand, at any time of day, at any time of year, year in and year out. obligation to provide service means that a public utility, unlike other firms, has little or no choice as to when and to what extent it must invest in new facilities. tion, because it takes 8 to 12 years to plan and construct a major generating facility, a decision to build such a facility must of necessity be based upon information which, although currently the best available, is subject to change during that 8 to 12 year period. Senate Bill 237 would prohibit the Corporation Commission from including in rate base whatever portion of a new major generating facility is not immediately used or required for use, even though 8 to 12 years earlier, when the decision had to be made to build the facility, the best information available indicated that the facility would be necessary in order to provide adequate and reliable service to utility customers.

It is simply not possible to know with certainty what the demand for electric power will be 8 to 12 years in the future. Senate Bill 237 would have a very chilling effect upon the willingness of the owners of electric public utilities to invest in new facilities even if the very best current information indicates such facilities will be necessary to be able to continue to provide adequate and reliable electric service in the future. To some people that might be an acceptable, indeed desirable, result. When

it is considered, however, that public utility services, especially electric power service, is indispensible to the health, safety, and comfort of individuals and the prosperity of commerce and industry, I believe that most people would favor a system which would not threaten the short or long run availability of such services.

The long term availability of adequate and reliable electric service is certainly a very significant consideration to those who are making business expansion or new business location decisions. Indeed, I refer you to the documents which are attached to my prepared remarks. The first is a December 17, 1982, letter to Ralph Fiebach, who was then KG&E's Chairman of the Board, from Robert W.

Thompson of the Fantus Company, perhaps the most well known business location consulting company in the United States. Attached to the letter is an excerpt from a publication of that company called Fantus Focus. That excerpt indicates the importance to commerce and industry of an adequate and reliable supply of electric power. I would like to read part of the excerpt to you right now:

Public utility capacity planning works within a time frame of approximately a decade from recognition of a future need to the completion of capacity to serve that need. Thus, relatively small errors in annual growth rate assumptions can result in substantial errors over a term of years. Current peak demand growth estimates, on a

national basis, are about three percent per year. If actual growth in demand is only 1.5 percent per year greater than the forecast, in 10 years there would be a shortfall between forecast and actuality of 20 percent. This is as large as the entire reserve that many utilities are currently being advised to seek. Thus, the ability to meet our future needs for electricity hangs on a delicate thread of conjecture which is subject to possible errors significantly in excess of the ability of the system to correct in a timely fashion.

Now I want to move to another aspect of our concern with Senate Bill 237. I am sure you have heard the expression that "a power plant is not built one megawatt at a time."

Like all generalizations, that one is not entirely true. It is possible to build a one megawatt power plant and certainly if electric public utilities built only one megawatt power plants it is very unlikely that they would ever run afowl of Senate Bill 237.

To make the generalization entirely true we should change it to say that "power plants are not economically built one megawatt at a time." I should explain what I mean by that. Technological advances in the design and construction of power plants since the 1950's have permitted the maximum size of generating units to increase from approximately 100 MW to more than 1000 MW today. The increased size of new power plants permitted economies of scale to be obtained not only in their construction but also in their

operation. As a result, during the 50's and the 60's economies of scale were adequate to offset the modest inflation at that time, so that energy costs to the ratepayer were decreasing through the late 1960's.

While the unprecedented inflation of the late 60's and the 1970's caused the cost per kilowatt of new power plants to increase by 3 or even 4 or 5 times over the 1950's costs, economies of scale have continued to result in a lower cost per kilowatt as the size of a power plant is increased. have attached to my prepared remarks a chart prepared by Gilbert/Commonwealth, an engineering consulting firm, which shows the projected average capital cost in dollars per kilowatt for mid-1980 coal-fired power plants ranging in size from 200 to 800 megawatts. You can see from the chart that the cost per kilowatt of a 200 megawatt plant was projected to be from \$900 to \$1200 per kilowatt whereas the cost for an 800 megawatt plant was projected to be from approximately \$550 to \$775 per kilowatt. That chart is from the "Long-Range Generation Planning Study for MOKAN Power Pool" January, 1981. I have also attached a chart from a more recent study prepared by Ebasco Services Incorporated, an internationally recognized company in the design and construction of power plants. That chart indicates that the 1982 cost of a 200 megawatt coal fired power plant escalated to projected 1991 costs is \$3,235 per kilowatt. The comparable cost for a 1200 megawatt power plant is

shown to be \$1,825 per kilowatt. You can see from the attached charts that there are tremendous economic advantages to building the largest feasible generating facility. At the same time, however, if Senate Bill 237 were to become law, it would encourage electric public utilities to build the smallest possible power plants, despite their increased cost.

Thank you.

The Fantus Company

a company of The Dun & Bradstreet Corporation

Location Consultants

Robert W. Thompson Senior Vice President

Prudential Building, Chicago, IL 60601 312-346-1940

December 17, 1982

Mr. Ralph P. Fiebach Chairman of the Board Kansas Gas & Electric Company 201 N. Market Wichita KS 67201

Dear Mr. Fiebach:

The lead article in the enclosed issue of our publication Fantus Focus will be of interest to you. We at Fantus have worked with the electric utilities for many years, and have observed the efforts of most utilities to encourage industrial and other forms of economic growth in their service areas.

In this mileau, then, it has been disheartening for us to see the regulatory mechanism increasingly injecting itself into the new field of load and system growth planning. The 20-20 hindsight now being exhibited by many such agencies prompted me to write the article, and point out that, in the time frames within which electric utilities must plan, the present apparent system excess capacities of some utilities may be surprisingly fleeting.

You may recall a recent full-page advertisement run by the Edison Electric Institute, quoting our former Board Chairman on similar issues. We continue firmly committed to the attitude expressed by both of these publications.

Although the enclosed publication is being distributed to business leaders throughout North America, it obviously will not serve to ameliorate the problems of rate relief and system planning which face the industry. However, should there be any way we might be of assistance to your company, through assistance to your economic development activities, presentation of expert testimony on the small import of relative rate levels to industrial growth, or in other ways, I would be happy to discuss them with you at your convenience.

Very truly yours,

Robert W. Thompson

RWT/wj Enclosure

Fantus Focus

A commentary on developments that affect decisions to consolidate, expand, build or relocate production, distribution and office facilities.

FALL 1982

Electricity for the Future

Until the 1970s, the policy of electric utilities in the United States was to encourage consumers to use electric energy. Throughout this same period, industries seeking new locations nearly always made the tacit assumption that ample electric energy would be available at plant start-up and that it would continue to be available to the murkiest reaches of the future.

These assumptions have been shattered in recent years. Almost everyone is familiar with the difficulties that have occurred in the Pacific Northwest, California, Florida and portions of the industrialized Northeast. The possibility of electric capacity shortfalls throughout much of the rest of the nation is less widely recognized.

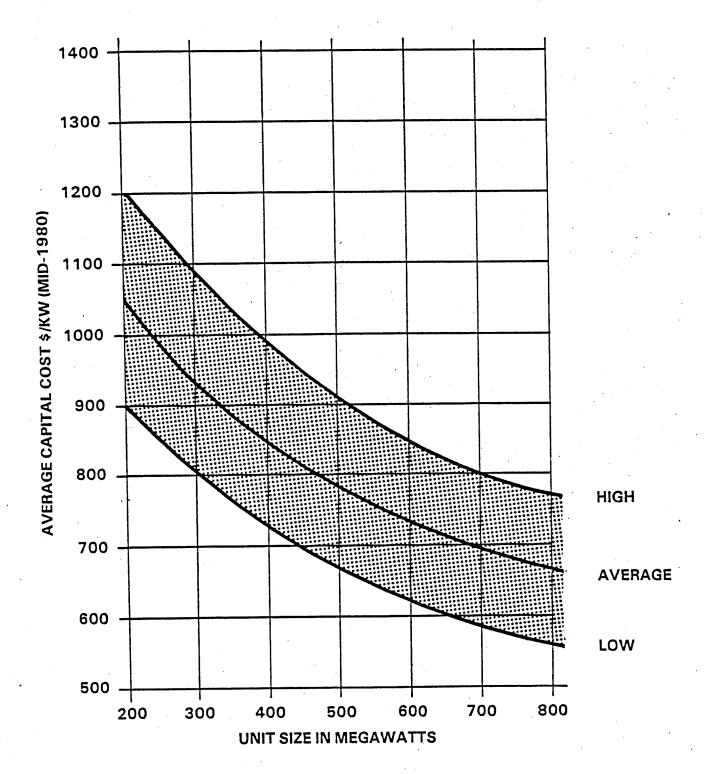
Public statements, often by utility regulatory agencies and consumer protection groups, have indicated that electric utilities are building excessive capacity. In fact, during the winter of 1981-82 some entire reliability areas had reserve capacity margins in excess of 60 percent. Summer peak capacity margins are usually lower, but figures of 40 percent, or even greater, were also found in several regions this summer. For example, the New England Power Pool had a planned reserve in excess of 43 percent for the summer of 1982, the Oklahoma Group had a reserve in excess of 42 percent, and some other regions have nearly comparable figures.

How, then, is it possible to be concerned about future power adequacy in the United States? First, the reserves previously quoted are derived by adding the capability of every potentially operable generating facility in a region. They are, therefore, susceptible to numerous "corrections," including contracted sales of firm power to other utilities with less comfortable reserves, shutdowns for scheduled maintenance, forced outages resulting from various types of equipment failure and other causes, and other unavailable capability. When these adjusments are made, as they were by the Department of Energy in the summer of 1982, a severe potential shortfall situation is seen in many regions. Under these adjustments, four regions out of the 26 rated show a net negative adjusted reserve for nine or 10 of the summers from 1982 through 1991. Though these regions, which encompass parts of Illinois, North and South Carolina, Pennsylvania, and Ohio, are the most serious cases, they are by no means the only utilities groups with undesirably low or negative reserves.

Public utility capacity planning works within a time frame of approximately a decade from recognition of a future need to the completion of capacity to serve that need. Thus, relatively small errors in annual growth rate

assumptions can result in substantial errors over a term of years. Current peak demand growth estimates, on a national basis, are about three percent per year. If actual growth in demand is only 1.5 percent per year greater than the forecast, in 10 years there would be a shortfall between forecast and actuality of 20 percent. This is as large as the entire reserve that many utilities are currently being advised to seek. Thus, the ability to meet our future needs for electricity hangs on a delicate thread of conjecture which is subject to possible errors significantly in excess of the ability of the system to correct in a timely fashion.

While we certainly do not believe that electric shortages will be experienced throughout the nation, attention to future power availability rather than present excess capacity is an increasingly necessary part of choosing the location for a new plant. In addition, an appraisal of the curtailment plan that the individual utility might impose upon its customers is of value in site selection. Different utility companies and different regulatory philosophies may create distinctions between areas where "turn off the industry" is the plan and other areas where all portions of society would be expected to bear their fair share of energy shortages.



CAPITAL COST VS UNIT SIZE COAL FIRED UNITS WITH FGD (Excluding AFUDC and Inflation)

CHART 9

UNIT SIZE INVESTMENT COSTS ESCALATED YO 1991 (\$ Millions)

UNIT SIZE	INITIAL	UNIT	EXTENSION UNIT	
ESTIMATING DATE-	1980	1982	1980	1982
200 MW (Subcritical)				
Direct Cost	444	544	348	409
AFDC	73	103	51	69
TOTAL PROJECT COST	517	647	399	478
	\$2585/kW	\$3235/kW	\$1995/kW	\$2390/kW
400 MW (Subcritical)			•	
Direct Cost	725	810	565	610
AFDC	125	162	88	109
TOTAL PROJECT COST	850	972	653	719
	\$2125/kW	\$2430/kW	\$1633/kW	\$1797/kW
600 MW (Subcritical)			•	
Direct Cost	925	1038	719	779
AFDC	176	. 228	124	155
TOTAL PROJECT COST	1101	1266	843	934
	\$1835/kW	\$2110/kW	\$1405/kW	\$1558/kW
800 MW (Supercritical)				
Direct Cost	1145	1284	877	962
AFDC	228	298	159	202
TOTAL PROJECT COST	1373	1582	1036	1164
	\$1716/kW	\$1977/kW	\$1295/kW	\$1455/kW
1200 MW (Supercritical)				
Direct Cost	1562	1750	1200	1310
AFDC	340	441	239	304
TOTAL PROJECT COST	1902	2191	1439	1614
	\$1585/kW	\$1825/kW	\$1199/kW	\$1345/kW

attachment 4

Testimony presented February 18, 1982 to the Senate Transportation and Utilities Committee pertaining to SB 237 by Blake McGuire.

Mr. Chairman and members of the Committee, my name is Blake McGuire. I am speaking today on behalf of Sunflower Electric Cooperative which is a generation and transmission cooperative serving eight (8) distribution electric cooperatives who serve electricity to approximately 40,000 meters in western Kansas.

Sunflower Electric Cooperative oppose SB 237 for the following three reasons:

- 1. SB 237 would subject generation and transmission facilities now under construction or those planned for the immediate future to more than one examination by the State Corporation Commission of Kansas for reasonableness and necessity. Existing plant siting and transmission line siting legislation currently allows the Corporation Commission to examine the need for such facilities prior to the commencement of construction. An additional examination for reasonableness and necessity would be duplicious and unnecessarily expensive.
- 2. This legislation would totally eliminate utility planning of any type, whether it be joint planning or individual utility planning, for the reason that SB 237 would preclude a utility from taking any actions other than those which would result in immediate solutions to immediate problems. Carried to its logical conclusion, a utility would need to experience a so-called "brown out" before it would risk the expenditures of funds on additional facilities on which it may not receive a rate of return until such an immediate need was demonstrated.
- 3. If SB 237 is passed, no lender, whether it is a private lender or a governmental entity, would advance funds to finance a project

that might be approved under either the plant siting or the transmission line siting statute only to have the Corporation Commission subsequently reverse its position under SB 237 and disallow the facility or a portion thereof in the utility's rate base, thereby denying the utility a rate of return on the facility, which rate of return is necessary for the repayment of any construction loan.

Mr. Chairman, members of the Committee, thank you for this opportunity to be heard on this issue. I will respond to any questions to the Committee.

Ed Peterson attachment

REMARKS ON SENATE BILL 237 BEFORE SENATE TRANSPORTATION AND UTILITIES COMMITTEE

REGULATION OF PUBLIC UTILITIES IS GOING TO BE AN INCREASINGLY DIFFICULT TASK IN THE 1980'S. WE FIND OURSELVES IN A TIME WHEN ENERGY PRICES ARE SURE TO CONTINUE TO INCREASE OVER THE NEXT FEW YEARS. DURING THE 1980'S THE MOST PROMISING AREAS FOR HOLDING THE LINE ON COSTS APPEAR TO BE MORE EFFICIENT USE OF PLANT IN SERVICE AND A POOLING OF RESOURCES WITHIN THE STATE AND THE REGION. Unfortunately, THE Corporation Commission currently LACKS THE AUTHORITY NECESSARY TO ALLOW IT TO INSURE THAT THESE PROMISING AREAS FOR COST REDUCTION WILL BE FULLY UTILIZED BY KANSAS UTILITIES. FURTHERMORE, THE COMMISSION'S LIMITED CURRENT AUTHORITY IS CLOUDED BY A DECISION OF THE KANSAS SUPREME COURT MADE IN 1976. SENATE BILL 237 SEEKS TO CHANGE THE SITUATION AND GRANT THE COMMISSION THE NECESSARY AUTHORITY AND FLEXIBILITY IT WILL NEED TO ADDRESS THE PROBLEMS OF REGULATION IN THE 1980'S.

In order to understand the effects of Senate Bill 237, one must first view the decision in the case of KG&E v. Kansas

Corporation Commission (218 Kan. 670, 1976). In that case, the Kansas Gas and Electric Company appealed a decision by the Corporation Commission where the Commission had excluded a portion of the LaCygne plant because mechanical failure prevented the plant from operating at full capacity. The court held that portions of plant in service could not be excluded from rate base

-1-

SIMPLY BECAUSE OF MECHANICAL FAILURE. If THE CASE HAD STOPPED THERE, WE WOULD HAVE NO ISSUE TODAY; HOWEVER, DICTA IN THE CASE CLOUD THE WATERS AS TO THE COMMISSION'S AUTHORITY. THE COURT STATED THAT PORTIONS OF PLANT MAY BE EXCLUDED IN LIMITED CIRCUMSTANCES SUCH AS WHERE THE PLANT IS OBSOLETE. THE OPINION ALSO SUGGESTED THAT THE COMMISSION MIGHT BE ABLE TO EXCLUDE PORTIONS OF PLANT WHERE THE UTILITY OWNED CAPACITY FAR IN EXCESS OF NEED; HOWEVER, ADDITIONAL LANGUAGE IN THE OPINION TENDS TO NEGATE THIS AUTHORITY AND INDICATES JUST THE CONTRARY, THAT THE COMMISSION MAY NOT HAVE AUTHORITY TO EXCLUDE EXCESS CAPACITY FROM THE RATE BASE. CONFUSION HAS RESULTED FROM THE KG&E DECISION; WE ONLY KNOW THAT THE COMMISSION LACKS THE AUTHORITY TO EXCLUDE A PORTION OF A PLANT WHERE THAT PLANT HAS FAILED SIMPLY BECAUSE OF MECHANICAL FAILURE AS IN THE INSTANCE OF THE LACYGNE PLANT.

As a result of the <u>KG&E v. KCC</u> case, a gap exists in the regulatory scheme. Although the Commission would have jurisdiction through the Siting Act to deny permission for New, impractical or unnecessary construction, the Commission has no clear authority to address problems arising from plant currently in rate base. Without this authority over current plant, the Commission lacks an enforcement mechanism by which it can insure that resources are efficiently and fully utilized. Let me give you a few examples of where the regulatory gap affects regulation and how Senate Bill 237 would correct the problem.

- (1) Utility A needs to build a transmission line to accomodate 115 kV capacity. It builds a 345 kV line but doesn't utilize the extra capability for a number of years. Should the additional cost of a 345 kV line be paid for by ratepayers while it is not in service? The Corporation Commission currently cannot make this distinction; once the power line in this example has been included in rate base, the ratepayers would continue to pay for the line in its entirety. Senate Bill 237 would give the Commission the flexibility to allow Utility A a fair return on the portion in service, but no more.
- (2) UTILITY B FACES A SUPPLY SHORTAGE AND WISHES TO PURCHASE POWER TO MEET ITS NEEDS. UTILITY C HAS MORE CAPACITY THAN IT NEEDS, BUT IT IS COLLECTING MONEY ON ALL ITS PLANTS IN RATE BASE, AND THEREFORE, IT HAS LITTLE INCENTIVE TO SELL POWER TO UTILITY B. SENATE BILL 237, BY GIVING THE COMMISSION AUTHORITY TO EXCLUDE THE UNUSED PORTIONS FROM RATE BASE, WOULD CREATE THE INCENTIVE.
- (3) UTILITY D OWNS A LARGE ELECTRIC GENERATING FACILITY

 WHICH BREAKS DOWN DUE TO "HUMAN ERROR." UTILITY D MUST

 PURCHASE EXPENSIVE REPLACEMENT POWER. UNDER CURRENT

 LAW, THE RATEPAYERS MAY HAVE TO PAY FOR BOTH THE

 DISABLED FACILITY AND THE PURCHASED POWER. SENATE BILL

237 WOULD GRANT THE COMMISSION AUTHORITY TO LIMIT THE CUSTOMERS' RESPONSIBILITY TO THE PURCHASED POWER SHOULD THE COMMISSION FIND SUCH ACTION TO BE REASONABLE. THIS SCENARIO IS ESPECIALLY APPLICABLE TO THE DUAL PLANT SITE WHERE A BREAKDOWN IN ONE PLANT FORCES AN EXTENDED SHUTDOWN OF THE UNDAMAGED PLANT.

It should be pointed out, however, that this bill, if enacted, should not apply to those public utilities that have already received a siting permit from the Corporation Commission after successfully demonstrating in a public hearing, and in accordance with the requirements of the Siting Act, the need for constructing, or adding to, an electric generating facility. Once the Commission approves of a public utilitiy's siting plans, the plant should go into the rate base upon its completion, assuming the utility has acted in a prudent and reasonable manner.

To conclude, passage of Senate Bill 237 would grant the Corporation Commission the authority to exclude from the rate base a fraction of equipment that was not being used to serve customers. It would give the Commission the flexibility needed to address a number of situations by providing clear authority. The enforcement mechanism would provide support to Commission activities in the areas of pooling, load management, and enhanced planning. It should be noted that Senate Bill 237 does not require the Commission to make any exclusions; it merely confers

AUTHORITY UPON THE COMMISSION WHICH IN TURN GIVES THE COMMISSION THE FLEXIBILITY IT NEEDS TO ADDRESS THE PROBLEMS LIKELY TO BE FACED IN THE 1980's.

This concludes my remarks. I will be happy to answer any questions you may have.