

MINUTES OF THE SENATE COMMITTEE ON TRANSPORTATION AND UTILITIES

The meeting was called to order by ROBERT V. TALKINGTON at
Chairperson

9:00 a.m./p.m. on Wednesday, February 2, 1983, 19 in room 254-E of the Capitol.

All members were present except:

All members present.

Committee staff present:

Fred Carman
Hank Avila
Rosalie Black

Conferees appearing before the committee:

SB 88 - James Haines, Attorney, KG&E, Wichita.
Drue Jennings, Vice President and General Counsel, KCPL, Kansas City.

Senate Bill No. 88

The meeting was called to order by Senator Talkington, Chairman, who after asking Mr. Haines and Mr. Jennings if they objected to a Kansas Corporation Commission court reporter taking proceedings of the meeting, said that since there was no objection, he would allow the request.

James Haines explained that Senate Bill 88 would allow utility companies to charge customers for construction costs of unfinished power plants. Currently, Kansas law prohibits utilities from applying power plant construction costs to rates that customers pay. New legislation would amend the law to allow utilities to include the cost of construction work in progress in their rates.

Mr. Haines added that the issue is not whether ratepayers are required to pay for construction costs, but rather when and how they must pay. It is universally accepted that the cost of constructing facilities for providing utility service must ultimately be paid by the ratepayers in one of two ways neither of which requires customers to pay the hard costs of construction. One way is to include the value of CWIP in the investment upon which rates are calculated (rate base) and the other way is to withhold that value from rate base and to accrue the associated carrying costs (interest and dividend requirements) until the project begins commercial operation.

Mr. Haines listed the significant advantages to including the value of

CONTINUATION SHEET

MINUTES OF THE SENATE COMMITTEE ON TRANSPORTATION AND UTILITIES,
room 254-E, Statehouse, at 9:00 a.m./p.m. on February 2, 1983.

SENATE BILL 88 (continued)

CWIP in rate base as being that customers are put on a "pay as you go" basis for utility service insuring that customers are aware of the increasing costs of providing utility service enabling them to make economically efficient choices regarding service; investment capital is available at a lower cost; and it would save customers a sudden jump in electric rates when the plants are completed.

In conclusion, Mr. Haines said that to pay construction costs, utilities now must borrow money and pay high interest costs. The utilities, and eventually the customers, will pay lower rates if construction costs are included in present rates. (See Attachment 1, Part A.)

Drue Jennings presented three charts to the Committee explaining CWIP as it relates to KCPL's 47% investment in the Wolf Creek Nuclear Generating Station. (See Attachment 1, Part B.) He mentioned that under existing law, the total cost of KCPL's share of Wolf Creek is \$1,108 million. Some \$334 million of this amount represents interest to build the plant. With CWIP in the rate base from 1983-1985, KCPL's total cost drops to \$929 million. Some \$155 million of which is interest. The savings in plant costs amount to some \$179 million.

Mr. Jennings summarized that if CWIP had been allowed since construction began in 1977, the KCPL share of Wolf Creek would have cost \$774 million. This means that the plant would have cost \$334 million less than its estimated cost under present Kansas law.

Senator Rehorn noted that future testimony by opponents on February 3 would bring up the question if the request for CWIP legislation was a "bail out" for KCPL and Kansas Gas and Electric Company. He asked Mr. Haines if this was the case. Mr. Haines answered that the utility companies were far enough along on the Wolf Creek project that it would be finished regardless of SB 88, but without legislation, higher costs would be reflected to the customer.

The meeting adjourned at 10:02 a.m.

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

2-2-83

NAME	ADDRESS	ORGANIZATION	BILL NO.
Dick Poff	WICHITA, KS	KG&E	
Howard J. Hansen	WICHITA, KS	KG&E	
Earnest A. Lehman	Wichita, KS	KG&E	
Bill Whitmer	"	"	
Turner White	KCDL	Kansas City	
Orme Jennings	KCPD	Kansas City	SB 88
D. WAYNE ZIMMERMAN THE ELECTRIC CO. ASSOC OF KS. SB 88			
James Haines	WICHITA	KG&E	SB 88
Jerry Conrad	TOPEKA	KG&E	SB 88
Ray D. Sheakel		KCPD	
Edward R. De Soignie	Topeka	Dept. of Transportation	-
DALE SATTERTHWAITE	"	Cas Service Co.	
Ed Schaub	"	SWBT	88
George A. Dugger	"	KS Dept on Aging	
J Stewart	"	WREN	
Jan Johnson	"	Budget Division	
Carol Hopkins	Topeka	KCC	88
Tom Whitaker	TOPEKA	KS Motor Carriers Assn.	
Lon Simons	Topeka	Kansas Power & Light	
Ed Reinert	Topeka	KS League of Women Voters KS chapt Sierra Club	88
Roland Wicka	Topeka	Ka. Natural Resource Council	88
Ed Peterson	Topeka	KCC	88
Bob Miller	Topeka	Gov's	88

Note: True zoning testimony
is attached.

James Haines

Attachment 1, Part A &
Part B

This report summarizes the effects of including or not including the value of construction work in progress (CWIP) in rate base for purposes of setting utility rates. A few introductory remarks are necessary.

There are at least four important and distinguishing characteristics of the public utility sector of American business: 1) a public utility operates with government approval as a monopoly; 2) public utility services are indispensable to the health, safety, and comfort of individuals, and the prosperity of commerce and industry; 3) a public utility is subject to government regulation of profits, as well as service quality, and price; and 4) a public utility is obliged to meet every financially responsible request for service within its service territory. Those characteristics set the public utility business apart from other sectors of American business and, for that reason, are relevant to any consideration of the regulatory treatment of the value of CWIP.

What is CWIP? CWIP is exactly what it appears to be - utility facilities under construction. The purpose of CWIP, of course, is to enable a utility to meet its legal obligation to provide service. CWIP is absolutely essential to the continuing operation of a public utility. As a result of wear and tear, obsolescence, and other factors, as well as increased demand for service, a public utility must be continuously engaged in constructing new facilities or it

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will eventually fail to meet its obligation to provide service. This 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.

It is universally accepted that the cost of constructing facilities used or required for use in providing utility service must ultimately be paid by the ratepayers. With respect to CWIP, therefore, the issue is not whether ratepayers are required to pay for it, but rather when and how they must pay. Basically, ratepayers pay for CWIP in one of two ways neither of which requires customers to pay the hard costs of construction, such as the land, planning, materials, and labor costs, prior to the commercial operation of the project. As you know, one way is to include the value of CWIP in the investment upon which rates are calculated (rate base). The other way is to withhold that value from rate base and to accrue the associated carrying costs (interest and dividend requirements) until the project begins commercial operation. If the value of CWIP is included in rate base, the carrying costs for such CWIP are paid currently so that ratepayers are on a "pay as you go" basis. If CWIP is not included in rate base, the carrying costs are not paid currently. Instead, they are added to the hard cost of the construction project and become reflected in rates at the time the project begins commercial operation.

To illustrate the two approaches to paying the carrying costs of CWIP, consider the following simplified example: Assume that a public utility invests \$1,000 each year in a construction project of two year's duration. Assume further that the annual carrying cost for such investment is 10%. Because tax consequences complicate the result, but do not fundamentally change it, they will be ignored.

Now, if the value of CWIP is included in rate base, rates during each year of construction will include the \$100 carrying cost. Thus, when the project begins commercial operation only the hard cost, that is, \$2,000, will be added to rate base. Thus, over the commercial life of the facility, ratepayers will return \$2,000 to the utility's investors through depreciation expense included in rates and, also through rates, will pay a return on the undepreciated portion of the \$2,000 facility. It is important to emphasize that when the value of CWIP is included in rate base only its carrying cost is reflected in rates. Again, rates do not begin to cover any part of the hard cost until the project begins commercial operation.

If the value of CWIP is not included in rate base, rates do not cover its carrying cost. That carrying cost still exists, however, and, in order for construction to continue, it must be paid. Consequently, the utility's investors must put up the cash to cover the carrying cost. The utility's investors, in effect, must lend the utility

the carrying cost associated with CWIP. This means that when the project in our example begins commercial operation the amount added to rate base will be the \$2,000 hard cost and the \$310 carrying cost. The carrying cost is \$100 for the first year - $10\% \times \$1,000$; it is \$210 for the second year - $10\% \times \$2,000 + 10\% \times \100 (the first year's carrying cost). Accordingly, over the commercial life of the facility, ratepayers will be expected through depreciation expense included in rates to return \$2,310 to the utility's investors and, also through rates, to pay a return on the undepreciated portion of the \$2,310 facility.

Taking our example one step further, if we assume the facility has a commercial life of 5 years, the revenue requirements, if the value of CWIP is included in rate base and if it is not included, are as follows:

<u>CWIP IN RATE BASE</u>						<u>NO CWIP IN RATE BASE</u>					
<u>Year</u>	<u>CWIP</u>	<u>Plant in Service</u>	<u>Required Return @ 10%</u>	<u>Depreciation</u>	<u>Total</u>	<u>CWIP</u>	<u>AFUDC* @ 10%</u>	<u>Plant in Service</u>	<u>Required Return @ 10%</u>	<u>Depreciation</u>	<u>Total</u>
1	1,000	-	100	-	100	1,000	100	-	-	-	-
2	2,000	-	200	-	200	2,100	210	-	-	-	-
3	-	2,000	200	400	600	-	-	2,310	231	462	693
4	-	1,600	160	400	560	-	-	1,848	184.80	462	646.80
5	-	1,200	120	400	520	-	-	1,386	138.60	462	600.60
6	-	800	80	400	480	-	-	924	92.40	462	554.40
7	-	400	40	400	440	-	-	462	46.20	462	508.20
Total			800	2,000	2,800				693	2,310	3,003

*AFUDC stands for "allowance for funds used during construction." AFUDC refers to the carrying costs of CWIP when the value of CWIP is not included in rate base. Note that AFUDC is compounded so that in the second year of construction a carrying cost is incurred not only for the \$2,000 of accumulated hard costs but also for the \$100 carrying cost accrued during the first year of construction.

Although the example is simplified, it accurately illustrates that the total cost to ratepayers is reduced when the value of CWIP is included in rate base. If the value of CWIP is included in rate base the total cost is \$2,800. If it is not included the total cost is \$3,003. (If the corporate tax rate of approximately 50% were taken into account, the difference between the two alternative treatments of CWIP would be even greater.) You can see from the table that when the value of CWIP is included in rate base only its carrying charges are reflected in rates; since CWIP in rate base does not give rise to a depreciation expense, customers are not required to begin paying the hard costs of construction until the project begins commercial operation.

Now let's consider a real world example of what happens when the value of CWIP is not included in rate base. For five investor-owned electric public utilities in Kansas, the table below shows their hard investment in generating facilities brought into commercial operation since 1970 and the AFUDC (carrying cost) associated with such investment.

KANSAS RETAIL PORTION ONLY										
MILLIONS OF DOLLARS										
	KCPL		KG&E		KPL		CTU		EDE	
	Cost	AFUDC	Cost	AFUDC	Cost	AFUDC	Cost	AFUDC	Cost	AFUDC
LaCygne 1	30.1	2.9	75.9	10.1						
LaCygne 2	34.1	2.9	90.5	11.9						
Jeffrey 1			56.0	7.1	196.6	28.7	16.9	2.1		
Jeffrey 2			42.0	7.9	146.7	31.3	13.7	2.7		
Iatan	<u>70.2</u>	<u>10.2</u>							<u>3.6</u>	<u>.7</u>
Total	134.4	16.0	264.4	37.0	343.3	60.0	30.6	4.8	3.6	.7

If the value of the above facilities had been included in rate base as CWIP, the total cost of such facilities to be paid by ratepayers would have been reduced in two ways. First, the carrying costs for the projects would have been paid currently so they would not have compounded. And when it is considered that the construction period for each of those facilities was four years or more, you can see that the compounding effect was substantial. Second, the total compounded carrying cost (total AFUDC) would not have been added to rate base when the facilities began commercial operation so ratepayers would have been spared the obligation to pay a return on the undepreciated portion of such carrying costs. Generating facilities have a useful life of approximately 30 years. Kansas ratepayers, therefore, as a result of the above facilities not having been included in rate base when they were CWIP, will be required for 30 years to pay a return on the undepreciated portion of the compounded AFUDC.

It would be a grave mistake to leave with you the impression that the only reason to include the value of CWIP in rate base is that it lowers the total cost to be reflected in utility rates. There are other significant advantages to including the value of CWIP in rate base. When the value of CWIP is included in rate base customers are put on a "pay as you go" basis for utility service. This insures that customers are aware of the increasing costs of providing utility

service and it better enables them to make rational and economically efficient choices regarding the use of utility service, e.g., whether or not it is economically justifiable to develop cogeneration, purchase insulation, or simply reduce usage. Another advantage of being on a "pay as you go" basis is that utility rates increase on a more gradual basis. When the value of CWIP is not included in rate base, the "rate shock" which can occur when major utility facilities begin commercial operation is illustrated by the table below which shows what the Kansas revenue requirements would have been for Kansas City Power & Light Company's Iatan station if it had been included in rate base while construction was in process and what the pattern actually was as a result of not having been put in rate base until it began commercial operation.

KANSAS CITY POWER & LIGHT COMPANY - IATAN
KANSAS PORTION ONLY
THOUSANDS OF DOLLARS

	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>
Revenue Requirement Increases With CWIP	24	55	212	843	1,765	1,060	9,142
Without CWIP	0	0	0	0	0	0	15,296
Revenue Requirement With CWIP	24	79	290	1,133	2,898	3,957	13,100
Without CWIP	0	0	0	0	0	0	15,296

You can easily see the sudden and dramatic impact on rates which occurs when the value of CWIP is not included in rate base. In 1980, because the value of Iatan CWIP had not been included in rate base, KCP&L's Kansas revenue requirement increased by \$15,296,000. If that value had been included in rate base, you can see that KCP&L's revenue requirement would have increased gradually beginning in 1974, and ultimately would have been \$2,196,000 less.

A further significant benefit of including the value of CWIP in rate base is that investment capital is available at a lower cost because, for a number of reasons, public utilities which are not permitted to include the value of CWIP in rate base are considered to be riskier investment alternatives than those which are permitted to include it. Of course, higher capital costs are ultimately translated into higher rates.

Other benefits of including the value of CWIP in rate base are that it facilitates sound financial planning for the cost of future facilities, it provides greater assurance that adequate facilities will be in place when they are necessary to meet service obligations, and, in the same vein, it provides a signal to those who are making business expansion or new business location decisions that a reliable, long-run, cost efficient supply of utility service will be available.

There have been many detailed examinations of the question which have concluded in favor of putting the value

of CWIP in rate base. Two of them are as follows:

"Regulatory Treatment of Construction Work in Progress: A Comparative Analysis" Hadaway, et al., Economic Research Division, Public Utility Commission of Texas; and "Construction Work in Progress in Electric Rate Base" prepared by the Economic Division, Congressional Research Service for the Subcommittee on Energy Conservation and Power of the Committee on Energy and Commerce, U.S. House of Representatives, June 1982.

I also call to your attention that the recent Sunset Audit Report on the Corporation Commission examined this issue and concluded that it is cheaper for the ratepayers, in absolute and present value terms, if the value of CWIP is included in rate base. For your convenience, I have reproduced the following table from that report:

Comparison of Revenues Required From Ratepayers for Including or Excluding Construction Work in Progress (CWIP) for Several Major Utility Plant Construction Projects in Kansas

Construction Project (a)	Total Revenues Required if CWIP is Excluded From Rate Base	Total Revenues Required if CWIP is Included in Rate Base	Option to Include is Less Expensive to Ratepayers by. . . .		Based on Net Present Value (b), the Option to Include is still Less Expensive by. . . .
			Dollars	Percent	
Jeffrey #1	\$ 976 million	\$ 899 million	\$ 77 million	8%	\$10 million
Jeffrey #2	\$ 783 million	\$ 692 million	\$ 91 million	12%	\$13 million
Jeffrey #3	\$1,185 million	\$1,017 million	\$168 million	14%	\$30 million
Total Jeffrey	\$2,944 million	\$2,608 million	\$336 million	11%	\$53 million
Wolf Creek	\$4,000 million	\$3,147 million	\$853 million	21%	\$94 million

(a) For Jeffrey Units, these figures represent only Kansas Power and Light Company's share (64%). For Wolf Creek, these figures represent only Kansas Gas and Electric Company's share (45%).

(b) Discount rate of 5.75 percent.

The Impact of Senate Bill No. 88 on Kansas City Power & Light Company

Page

Mr. Chairman and members of the Committee, my name is Drue Jennings. I am Vice President and General Counsel for Kansas City Power & Light Company. Having heard Mr. Haines' very capable presentation with respect to inclusion of construction work in progress (CWIP) in a utility's rate base, the Committee will find of interest, I believe, some specific information concerning the impact of proposed Senate Bill No. 88 on Kansas City Power & Light Company, confined to a single major project--Wolf Creek Nuclear Generating Station. The data I intend to share with you are based on certain assumptions, as are any forecasts of the future.

To lend perspective, let me first remind you of certain facts concerning Kansas City Power & Light Company, and Wolf Creek. KCPL operates at retail in both Missouri and Kansas, with about 70% of its sales to Missouri customers and 25% to Kansas customers. The remainder of its total sales are to wholesale customers under Federal Energy Regulatory Commission jurisdiction. KCPL and Kansas Gas and Electric Company each own 47% of Wolf Creek, while Kansas Electric Power Cooperative Inc. owns 6%. Wolf Creek has been under actual construction since 1977, and is scheduled for completion and commercial operation in the spring of 1985. The present forecasted total construction cost of Wolf Creek, including allowance for funds used during construction (AFDC), is approximately \$2.4 billion.

Certain assumptions have been made with respect to the data to be discussed today as well. Based on Wolf Creek's current budgeted completion cost, KCPL's share will be \$1.108 billion, of which \$334 million will be AFDC, assuming nothing is done to permit rate base inclusion of CWIP. Because KCPL is a bi-state utility, and because virtually all of its electric facilities

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serve system (as opposed to an individual state's) needs, the Kansas and Missouri commissions allocate, for rate-making purposes, the Company's facilities between states, based on relative demands of the two states' customers. Usually, about 30% of KCPL's facilities are allocated to Kansas; thus the Kansas data shown reflect this 30% factor. Therefore, KCPL's Kansas share of Wolf Creek would be about \$332 million ($\$1.108 \text{ billion} \times 30\%$), which includes some \$100 million of AFDC ($\$334 \text{ million} \times 30\%$).

In comparing the impact of passage of this Bill with the expected course of events under existing law, it has been assumed that KCPL's Kansas portion of Wolf Creek CWIP has been included in jurisdictional rate base (to the extent contemplated by the Bill), and service rates adjusted accordingly, as of January 1, 1983.

To move now to the specific data, please note that attached to this statement are three charts. The first is labeled "Wolf Creek Net Plant Investment With and Without CWIP in Rate Base," the second "Savings Impact of CWIP in Rate Base on Annual Rate Case Requirements," and the third "Residential Customer Monthly Cost 1000 KWH/Month."

Examining the first chart, you will notice that three separate lines, or trends, are plotted. The uppermost depicts Wolf Creek's net plant investment over the period shown. Recall that KCPL's share of Wolf Creek's cost is currently expected to be \$1.108 billion (figures shown on this chart are total Company), which is plotted at the completion date of 1985. After that time, as depreciation of the plant begins, "net" plant investment will decline.

The middle line reflects the reduction in the expected cost of KCPL's share of Wolf Creek if Senate Bill No. 88 were now the law, and service rates so reflected. Note the significant decline in expected

cost--\$179 million--due entirely to elimination of most, but not all, AFDC accruals over the remainder of the construction period.

I should emphasize here two points: (1) AFDC is accrued at its highest levels in the last 24 to 30 months of any construction project, when total investment is reaching its peak, and (2) throughout the entire construction period, AFDC is compounded--as AFDC accruals are added periodically to project costs, subsequent AFDC accruals are applied not only to cash construction expenditures, but to previously booked AFDC as well, because AFDC, or "money" cost, is just as real a construction cost as the brick and mortar and labor required to build the project.

The last, and lowest line on this chart reveals Wolf Creek's cost to KCPL had CWIP been included in KCPL's rate base since actual construction began in 1977. Virtually all the AFDC is eliminated, leaving not only significantly reduced plant cost, but correspondingly lower revenue requirements, and rates, over the remaining life of the plant. Ironically, a 1978 decision of the Kansas Supreme Court, in Kansas City Power & Light Company v. State Corporation Commission, 224 Kan. 86, 578 P.2d 254 (1978), might have paved the way for just such a result, at least for KCPL's Kansas operations, but for an amendment the same year to K.S.A. 66-128, which placed severe restrictions on the Corporation Commission's discretion to include CWIP in rate base. That statutory amendment, coupled with the Commission's administration of the statute since then, have virtually eliminated prospects for meaningful CWIP inclusion in rate base in Kansas.

I'll next direct your attention to the second chart. This bar chart reflects, based upon our best estimates, the expected impact on KCPL's Kansas revenue requirements due solely to Wolf Creek's completion in 1985, assuming no CWIP inclusion in rate base, and continued AFDC accruals.

The same chart, however, reveals the potential diminution in that rate impact were CWIP to be immediately included in rate base as provided by the proposed Bill. Current revenues would increase to reflect the return allowed on the CWIP included, while the impact on rates in the year of plant completion would be cut in half. Although not specifically shown, KCPL's ratepayers would pay \$64 million "early" in this case, while saving over \$117 million over the life of the facility--due to discontinuance of further AFDC accruals. This chart depicts the two most significant advantages to customers of rate base inclusion of CWIP:

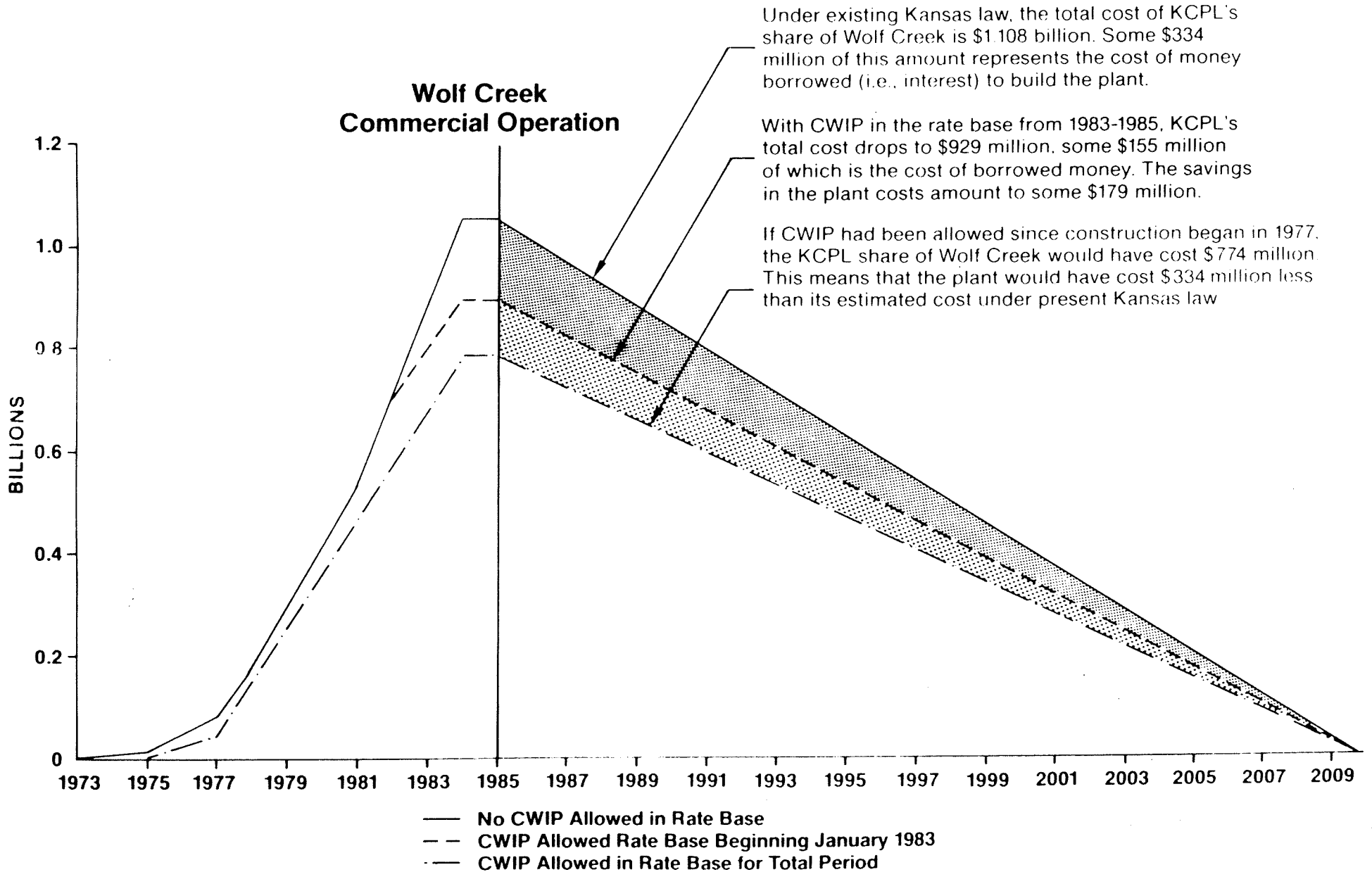
1. Absolute, significant dollar savings over the life of the facility, and
2. Moderation in the abrupt change in rates required in the year a major project is completed and dedicated to public service.

And without question, the utility benefits from the enhancements in cash flow--every additional dollar received in revenue is another dollar which need not be raised through external financings, avoiding the additional capital costs. Let me emphasize further that these figures are KCPL's projections based on our expected actual costs--particularly of capital. The figures do not necessarily reflect the amount of rate relief the Commission might actually authorize.

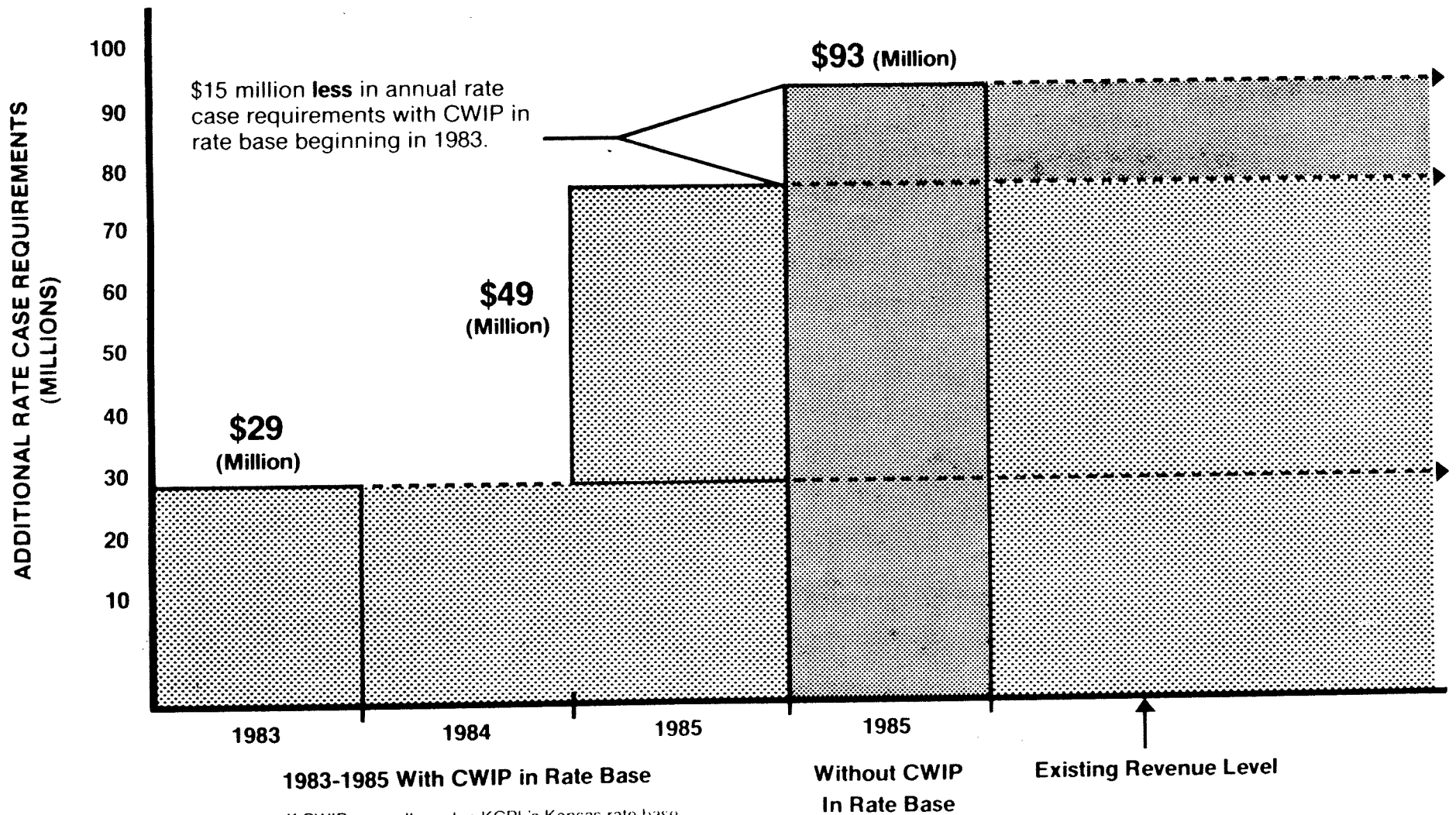
The third chart illustrates the impact of the proposed Bill on a KCPL Kansas residential customer who uses 1,000 kilowatt-hours (kwh) of electricity per month. Currently such a customer pays about \$74 per month for 1,000 kwh. Were Senate Bill No. 88 the law now, that figure would be about \$87 per month. Please note the experience beginning in 1985 and continuing thereafter--this again reflects the savings benefit, over the life of the facility, of rate base inclusion of CWIP now.

I could continue with further elaboration, but due to our time constraints feel it beneficial to attempt to answer any questions you may have at this time. I extend my gratitude for your attention and consideration.

Kansas City Power & Light Company Wolf Creek Net Plant Investment With and Without CWIP in Rate Base



**Kansas City Power & Light Company
Savings Impact of CWIP in Rate Base
on Annual Rate Case Requirements:
Kansas only; Wolf Creek Investment, 1983-85**



If CWIP were allowed in KCPL's Kansas rate base beginning in 1983, some \$78 million would be required in additional rate increases from customers through 1985, however, this is \$15 million less than the projected \$93 million rate increase needed to recognize Wolf Creek's commercial operation under present Kansas law

**Kansas City Power & Light Company
 Wolf Creek CWIP in Rate Base in Kansas
 Residential Customer Monthly Cost
 1000 KWH/Month**

