

**EXAMINATION OF  
MANAGEMENT AND OPERATIONS**

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**Prepared for  
Board of Public Utilities  
Kansas City, Kansas**

April 17, 1996

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*Consultants and Engineers*  
KANSAS • OHIO • UTAH

April 17, 1996

Board of Public Utilities  
Kansas City, Kansas  
700 Minnesota  
Kansas City, KS 66101

Gentlemen:

We are pleased to present our "Examination of Management and Operations," prepared for the Board of Public Utilities. We have made certain minor editorial changes and revisions in the presentation following the discussions of drafts of this document with staff and with the Board held on April 12 and 13, 1996. The conclusions are unaffected by such changes and revisions.

We appreciate the opportunity to have been of service and are prepared to provide any further assistance you may require of us.

Sincerely,

A handwritten signature in cursive script that reads "Sawvel and Associates".

Sawvel and Associates

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## SECTION I - SCOPE OF ENGAGEMENT

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The Scope of our engagement has been to examine the management and operating philosophies of the Board of Public Utilities (BPU), and their past implementation, and identify changes which may be necessary or useful if the utility is to provide in the future quality service on competitive terms in a manner consistent with financial integrity under City ownership.

If the BPU is to survive in tomorrow's competitive environment, there are broad issues of a high priority which must be addressed successfully. As we shall elaborate, our conclusion is that the utility can survive as a viable supplier of quality service on competitive terms in a manner consistent with financial integrity and provide the City with a reasonable return, but only if adequate attention is given to a number of changes which we believe are necessary or useful for such a result. Continuation of business as usual has brought the BPU to the threshold of the point of no return.

At the operational level, although improvement is always possible in any aspect of life, BPU appears to have many employees who know their jobs. As for management, it appears that the Board did not act too soon in bringing in from the outside a new General Manager. By the same token, the General Manager has not acted too soon in seeking to contain and reduce expenditures and re-evaluate management philosophy and its implementation. This is a good beginning, but it is only a beginning.

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## SECTION II - STEPS TAKEN

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### GENERAL

We have reviewed various documents which we were furnished, including electric power sale, power purchase, fuel supply, power pool and interconnection agreements; a water sale agreement; budgets; financial statements; the Board's Financial Responsibility Statements; official statements and the revenue bond indenture; a number of internal and external studies, and certain relevant statutes and court decisions.

We have also conducted interviews within and without BPU. All of these interviews were had on an understanding of confidentiality except to the extent they might be the subject of discussions with the General Manager.

We also inspected various facilities, including office buildings, the electric generating stations and certain electric substations and distribution properties.

### ANALYSES

We analyzed operations with a view toward identifying potential efficiencies and economies.

We considered the competitive environment in which any future industrial, commercial and residential rate change considerations would likely be weighed. We also considered the allocation of burdens among BPU's rate classes.

We analyzed receipts from the possibility of increasing revenues through increased off-system sales and more efficient and economic use of BPU's existing assets.

With respect to expenditures, we analyzed operation and maintenance expenses, including comparisons with industry norms. This analysis considered employee numbers and employee costs per customer, per KWh, per gallon and per dollar of capital investment. We analyzed past capital expenditures as to amount and source of funds. We analyzed past borrowing patterns and the nature of expenditures funded with debt proceeds. Finally, we considered the relationship between the electric and water utilities and the relationship between the City and BPU.

## ASSUMPTIONS

We have assumed that as a practical matter, if not as a legal matter, the electric utility will be faced with industrial and major commercial rate competition either in situ or by emigration threat and/or a desire for attraction of new customers, and that residential rates must, as a practical political matter, be reasonable in comparison with surrounding community rates. We have done this notwithstanding the statement in the draft official statement that: “the impact of deregulation on the BPU is uncertain and unknown since neither the Federal Energy Regulatory Commission nor the Kansas Corporation Commission regulate municipal utilities within their service territories. Further, because Kansas is a “home rule” state, it is even unclear as to whether legislation can be enacted which would require retail competition without a constitutional amendment. Nonetheless, the BPU is still preparing for the possibility of retail wheeling and competition.”

We also have assumed that as a practical matter, the water utility will be faced with rate competition for existing industrial and commercial customers, if only because of the emigration threat and/or desire to attract new customers; and that residential rates must be reasonable in comparison with those in surrounding communities.

Finally, we have assumed that any statutory, charter, indenture or other legal impediment can be surmounted. We have not tried to take into account ongoing salutary efforts to reduce costs launched since the 1996 Budget was adopted.

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## SECTION III - FINDINGS

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### GENERAL

Overall, BPU's electric and water utility systems appear to be well maintained and in good operating condition. No need for major improvements or system modifications in the electric utility were readily apparent from our review. With respect to the water utility, discussions are currently taking place involving major capital expenditures.

Our interviews with BPU staff generally left us with an impression of technical competence and a desire for opportunity to serve within the BPU. The interviews left us also with a pervading impression of a consensus that there exists excessive employment, excessive wage and benefit levels, political influence and contribution at all levels, an inadequate flow of information among areas, a certain lack of mutual confidence between areas, and a physical and operational design that frustrates communication and efficiency. Nothing in our other work disabused us of those impressions.

As described below, BPU's cost of operations is greater than that which can continue if the BPU is to be competitive in the future. Changes in the BPU's utility operations are necessary for the BPU to achieve appropriate financial operating results. The costs of, and changes in, operations are described below for each of the electric and water utilities. In addition, our findings with respect to the overall management and organizational structure of the BPU are provided below.

### ELECTRIC UTILITY

We evaluated the BPU's past operational practices and its financial and operating data over the past ten years. We projected the operational and financial aspects of the BPU's electric utility over the next ten years based on an assumed continuation of past practices. These practices include a continuation of historical operating and capital expenditure levels and reliance on the issuance of

debt to fund a significant amount of normal and recurring construction expenditures.

This base case projection is premised on several key assumptions. All currently operating facilities remain in service and are operated at historical levels. Expenditures for construction continue at the average level of the previous five years, excluding special projects. The construction expenditures for the Kaw power plant life extension were included in 1997-1999. Funds are borrowed every two years to meet 70% of projected construction expenditures for the current and subsequent year. This is consistent with the 1989-1995 average. No rate increases are included for 1996. Rate increases after 1996 are included to maintain debt service coverage at 1.8. An inflation rate of 4% is used for all items except coal purchases and purchased power, which used 3%. No staffing changes are made.

Energy sales to existing native load customers increase at 0.75% annually. In addition, the Certain-Teed expansion in 1998 is included. Debt service on additional borrowings was calculated on a level debt service basis at an assumed interest rate of 7% and a maturity of thirty years. Through 1997, fuel cost for the Quindaro plant escalates at 3% from actual 1995 price levels to reflect continued blending of Wyoming and Illinois coal. Beginning in 1998, Quindaro's fuel cost is based on burning Hanna Basin coal.

### ***Assessment of Rate Environment***

Under the base case projection, the BPU must increase rates by a total of about 40% over the next ten years. However, the current rate environment requires that the electric utility base its planning on the assumption that rates will remain at or near current levels.

We have examined the BPU's rates, rate structure and cost studies and have compared the BPU's rates with those of other area utilities. We also reviewed reserve and contingency funds funded directly and indirectly by revenues from rates, the practices relating to the use of such funds and whether such reserve funds will provide the BPU financial stability and security in a competitive environment.

In connection with keeping rates at or near current levels, rate stabilization and contingency funds and practices should be in place to ensure that weather fluctuations and periodic major repairs and emergencies can be handled without adverse financial impact on electric operations. The current rate stabilization and contingency funds and practices do not provide protection. The reserve and contingency fund practices need to be modified so as to enable the BPU to offer stable rates and prices at the lowest possible levels in a manner which provides financial security.

Consideration should be given to some rate modifications including the elimination of the fuel adder.

Current efforts underway to unbundle rates, and considerations of major revisions to the rate structure and rate philosophy which are based on past practices, are not likely to be particularly meaningful or productive. With implementation of the changes proposed herein, analysis and investigation based on past practices will not serve as a good predictor of future, ongoing BPU performance for pricing and rate making purposes and could be counterproductive.

### ***Cost Reduction Projections***

Opportunities for change which will improve the BPU's financial operating results include reduced levels of operating expenditures excluding fuel and purchased power, reductions in fuel and purchased power costs and reductions in capital expenditures.

- ***Operation and Maintenance Expenditures***

The BPU's operating expenditures exceed industry norms based on comparisons of recent surveys. BPU's operation and maintenance expenses were in line with industry averages as recently as the mid 1980s. Since that time, costs appear to have increased at a substantially greater rate than that of other regional utilities. Most of the increases have occurred in the non-production areas.

To remain competitive in today's electric utility industry, we believe that BPU must bring these operating expenditures other than fuel and purchased power in line with industry averages. To

achieve that objective, we find that such operating expenditures need to be reduced by the following amounts:

non-fuel production O&M	4%
transmission and distribution O&M (includes transportation and stores)	25%
customer accounting expenses	15%
administration and general expenses	30%

(excludes the effect of reductions in other areas)

Such a reduction would represent 15% (approximately \$6,500,000 in 1996 dollars) of total operating expenditures other than fuel and purchased power.

To the extent that the electric utility revenues cannot be increased without increasing operating expenditures, electric utility operating expenditures other than fuel and purchased power costs must be reduced 15%. Labor costs constitute the largest component of operating expenditures and must be reduced through either a reduction in the number of employees, a reduction in the per employee costs or a combination of the two. A 15% reduction in labor costs from the employee number reduction above would mean a reduction of approximately 98 employees. Table 3 shows the reduction in employment corresponding to the above operating expense reductions assuming that all reductions were accomplished through reduction in the number of employees.

**Table 1**

**Estimated Staff Reductions, Based on Industry Averages  
Kansas City, KS BPU - Electric Utility**

<b>Area</b>	<b>Dec. 31, 1995 Staffing</b>	<b>Projected Average Employee Position Reductions</b>	<b>New Staffing</b>	<b>% Reductions</b>
Electric Supply	271	11	260	4%
Electric Operations	210	53	157	25%
Engineering and Environmental Services	37	5	32	15%
Marketing & Customer Services	77	12	65	15%
Rates & Regulations	43	13	30	30%
General Management	13	4	9	30%
<b>Total - Electric Utility</b>	<b>651</b>	<b>98</b>	<b>553</b>	<b>15%</b>

• ***Fuel and Purchased Power***

Because of the magnitude of power supply costs relative to the BPU's total electric system operations and the effect that changes in this area have on the bottom line operating results, we also evaluated opportunities to economically improve power supply operations and costs. Our efforts involved review of the BPU's arrangements with other utilities, qualitative and analytical analysis of the BPU's power supply operations and its current resource utilization of its resources, operating constraints, availability of other arrangements and power sales/purchases and consideration of modification of current practices involving the BPU's facilities and its arrangements with other utilities. From these efforts we have concluded that opportunities exist for the BPU to reduce power supply costs through more economical dispatch and operation of resources, off-system sales and purchases, and operating practices.

Areas identified for reducing power supply costs and improving efficiency include increased activity in the power supply market to engage in additional economy transactions that reduce costs; implementation of transactions and operating practices that will allow the BPU to more efficiently

use its Nearman and Quindaro generating facilities; modification of power supply arrangements to provide for the equivalent of placing the Kaw plant on cold standby during non-peak months; and improvements in overall effective use and coordination of BPU's resources including the transmission facilities and arrangements of regional utilities and BPU's hydro resources to maximize economic dispatch and use of all resources.

- ***Capital Expenditures***

The BPU needs to reduce construction expenditures to typical industry levels. The primary area where capitalized improvements exceed industry averages is the production plants. Transmission and distribution plant improvements were found to be in line with typical industry data.

Production plant improvements were estimated as the sum of annual renewals and replacements and five-year overhaul costs. The estimated costs for these improvements were based on industry averages and our review of the BPU's three power plants. This change reduces the BPU's production plant capital expenditures from historical levels of \$10,000,000 to \$12,000,000 over the past five years to projected expenditures of \$7,000,000 to \$10,000,000 over the next ten years. These adjustments in capital expenditures in conjunction with the O&M cost reductions and the assumed changes in power supply costs described above would enable the BPU to fund operations and capital expenditures with revenues.

### ***Suggested Modifications and Improvements***

Opportunities for improving the BPU's electric utility financial operating results included reducing operating expenditures, improving utilization of power supply resources, and reducing capital expenditures. Some of the power supply efficiency gains, in order to be achieved, will require modifications and improvements in the following areas: interconnection and transmission arrangements with regional utilities; production costing information and modeling to establish parameters and tools for facilitating off-system transactions; arrangements involving the delivery and use of BPU's hydro resources; and fuel supply arrangements and capabilities at the Quindaro and Nearman plants. As part of this effort, the BPU will need to engage in a concentrated effort to

market its resources to off-system users.

Table 2 summarizes the base case and the cost reduction projections described above. As can be seen, Scenario 6 shows that by implementing all of the cost reduction measures described, the electric utility can operate on a sound financial basis with minimal rate increase over the period. If the rate stabilization fund and contingency reserve funds described above were both in place and being properly utilized, the minimal rate increase may not be necessary. Such Scenario 6 assumes that the electric utility will successfully enter into off-system sales transactions that result in the continued, although reduced, use of the Kaw plant. If those measures are unsuccessful, the BPU should dispose of or shut down the Kaw plant. Maintaining the Kaw plant in a cold standby status preserves the plant's value while these efforts are underway.

**Table 2**  
**Summary of Base Case and Cost Reduction Projections for Electric Utility**  
**Kansas City, KS BPU**

Base Case	Description of Projections	Present Value @ 7% Discount Factor (\$000)				Cumulative Rate Increases Required (1996-2005)
		1996 Native Load Revenue	1997-2005 Native Load Revenue	1996-2005 Native Load Revenue	1996-2005 Saving from Base Case Revenue	
	Current operations 70% construction funded from debt issues Maintain 1.8 Debt Service Coverage (indenture)	\$111,751	\$912,447	\$1,024,198	N/A	38.8%
<b>Cost Reduction Scenarios</b>						
1	Non-fuel expense reduced to industry norms	\$105,311	\$838,477	\$943,788	\$80,410	30.1%
2	Economic use of existing resources	\$109,552	\$892,656	\$1,002,208	\$21,990	36.4%
3	Make peaking capacity off-system sale Make additional off-system economy sale	\$111,352	\$897,003	\$1,008,355	\$15,843	35.9%
4	Place Kaw on cold standby Increase off-system purchases Make peaking capacity off-system sale Make additional off-system economy sale	\$107,053	\$863,332	\$970,385	\$53,813	32.1%
5	Reduce capital expenditures to industry average	\$110,678	\$872,317	\$982,995	\$41,203	31.6%
6	No borrowing after 1995 Maintain positive cash flow Place Kaw on cold standby Increase off-system purchases Make peaking capacity off-system sale Make additional off-system economy sale Capital expenditures to industry average	\$111,429	\$765,631	\$877,060	\$147,138	3.1%



## WATER UTILITY

As in the electric utility, we have evaluated the BPU's operational practices and its financial and operating data over the past ten years. We projected the operations and financial aspects of the BPU's water utility over the next ten years based on an assumed continuation of past practices which include a continuation of historical operating and capital expenditure levels and reliance on the issuance of debt to fund a significant amount of normal and recurring construction expenditures.

This base case projection is premised on several key assumptions. All currently operating facilities remain in service and are operated at current levels. The projections do not include the construction of the proposed Nearman Water Treatment Plant nor rehabilitation of the Quindaro Water Treatment Plant to its original 60 MGD design capability. For 1996, construction expenditures from the 1996 capital budget were used. Construction expenditures for 1997-2005 reflect the average historical construction expenditures excluding special projects. Funds are borrowed every two years to meet 70% of projected construction expenditures for the current and subsequent year. This is consistent with the 1989-1995 average.

A 9.3% rate increase is included for 1996. Rate increases after 1996 are included to maintain debt service coverage at 1.8. No staffing level changes are made. An inflation rate of 4% is used for all items.

Water sales remain constant at the 1995 level. Debt service on additional borrowings is calculated on a level debt service basis at an assumed interest rate of 7% and a maturity of thirty years.

### ***Assessment of Rate Environment***

Under this base case projection, the BPU would have to increase rates by a total of about 90% over the next ten years. With the recent 9.3% water rate increase, the BPU's water utility residential rates are in the top range in comparison with those in surrounding communities. The current rate environment requires that the water utility base its planning on the assumption that rate increases

will not appreciably exceed the level of inflation.

As with the electric utility, rate stabilization and contingency funds and practices should be in place to ensure that weather fluctuations and periodic major repairs and emergencies can be handled without adverse financial impact on water operations. The current rate stabilization and contingency funds and practices do not provide protection and should be modified to enable the BPU to offer stable rates at the lowest possible levels in a manner which provides financial security.

### ***Cost Reduction Projections***

Opportunities for improving the BPU's water utility financial operating results include reducing levels of operating expenditures.

The BPU's operating expenditures exceed industry norms based on comparisons of recent surveys. We believe that the BPU must bring these operating expenditures in line with industry averages. To achieve that objective, we find that such operating expenditures need to be reduced by the following amounts:

pumping and treatment O&M	10%
transmission and distribution O&M	30%
customer accounting expenses	30%
administrative and general expenses	30%

Such a reduction would represent 28% (approximately \$3,200,000 in 1996 dollars) of total operating expenditures.

Table 3 illustrates the reduction in employment corresponding to the above operating expense reductions, assuming that all reductions were accomplished through reduction in the number of employees.

To the extent that the water utility revenues cannot be increased without adverse consequences, water utility operating expenditures must be reduced 28%. Labor costs constitute the largest component of operating expenditures and must be reduced through either a reduction in the number of employees, a reduction in the per employee costs or a combination of the two. A 28% reduction in labor costs from the employee number reduction above would mean a reduction of approximately 63 employees. Table 3 shows the reduction in employment corresponding to the above operating expense reductions assuming that all reductions were accomplished through reduction in the number of employees.

**Table 3**  
**Estimated Staff Reductions Based on Industry Averages**  
**Kansas City, KS BPU - Water Utility**

Area	Dec. 31, 1995 Staffing	Projected Average Employee Position Reductions	New Staffing	% Reductions
Water Operations	122	31	91	25%
Engineering and Environmental Services	21	6	15	30%
Marketing & Consumer Services	51	15	36	30%
Rates & Regulations	26	8	18	30%
General Management	9	3	6	30%
<b>Total - Water Utility</b>	<b>229</b>	<b>63</b>	<b>166</b>	<b>28%</b>

Table 4 summarizes the base case and the cost reduction projection described above. As can be seen, Scenario 2 shows that by implementing the cost reductions measure described, the water utility can operate on a sound financial basis with rate increases subsequent to 1996 at approximately the level of inflation.

**Table 4**  
**Summary of Base Case and Cost Reduction Projections**  
**Kansas City, KS BPU - Water Utility**

Description of Projections		Present Value @ 7% Discount Factor (\$000)				
		1996 Native Load Revenue	1997-2005 Native Load Revenue	1996-2005 Native Load Revenue	1996-2005 Saving from Base Case Revenue	Cumulative Rate Increases Required (1996-2005)
<b>Base Case</b>	Current operations 70% construction funded from debt issues 1.8 Debt Service Coverage (indenture)	\$20,545	\$192,109	\$212,654	N/A	90.1%
<b>Cost Reduction Scenarios</b>						
1	Reduce O&M expenses	\$20,545	\$169,605	\$190,149	\$22,504	65.9%
2	No additional borrowings Maintain positive cash flow Reduce O&M expenses	\$20,545	\$155,579	\$176,124	\$36,530	45.0%

**OVERALL MANAGEMENT AND ORGANIZATIONAL STRUCTURE**

With the exception of the General Manager, the present structure does not provide for a direct line of authority or responsibility for either the electric or water utility, as a whole, at the top levels. Lines of authority and thus responsibility should be clarified and simplified.

The coordination of certain common activities between the electric and water utilities and the exchange of information in a form that is appropriate for decision making is inadequate and not conducive to efficient and effective operations.

Financial employees should no longer, in effect, make management decisions by virtue of choices made by them without operational input in the preparation of financial reports.

#### **EXPENDITURES FOR CONSTRUCTION AND BORROWING PATTERNS**

Expenditures for construction for the last ten years are summarized on Table 5. Table 6 is a summary of funds borrowed by the city for the BPU over the last ten years. Table 6 also summarizes expected retirement dates for major facilities.

Although some of the financings were refunds of earlier issues, a substantial amount of new debt has been issued. Based on the historical construction expenditures, it appears over 70% of the annual construction expenditures were financed through additional long-term borrowings. In addition, it appears the borrowings have not increased generation capacity or significantly extended the useful life of existing facilities, as shown on Table 6.

**Table 5**  
**Expenditures for Construction (\$)**  
**Kansas City, KS BPU**

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
<b>Electric Production</b>										
Kaw Plant	1,201,907	671,582	956,502	2,257,340	4,757,741	2,198,272	4,939,974	2,767,464	3,077,253	970,309
Quindaro Plant	6,617,378	1,375,150	3,299,279	1,241,349	4,834,294	8,943,445	12,310,923	6,694,654	5,517,534	7,682,613
Nearman Plant	190,359	1,142,017	8,742,996	54,788	1,122,948	1,283,682	568,306	1,949,868	4,633,971	2,148,977
<b>Subtotal</b>	8,009,644	3,188,749	12,998,777	3,553,477	10,714,983	12,425,399	17,819,203	11,411,986	13,228,758	10,801,899
Electric Distribution	10,292,688	9,245,372	12,998,777	5,855,093	7,719,114	10,437,841	16,650,415	7,877,788	6,002,567	11,571,729
Water Department	3,083,410	4,307,778	3,892,113	3,097,135	4,627,391	4,912,921	8,730,864	8,470,039	12,622,372	14,303,003
Steam Operations	0	0	0	0	0	0	0	81,686	15,576	0
Common Plant										
Electric Department						15,381,683	10,246,329	3,234,570	3,311,020	7,058,172
Water Department						2,484,773	93,111	1,209,227	1,183,577	2,160,300
Steam Department						0	0	(150,766)	0	0
<b>Subtotal</b>	1,700,817	4,276,467	4,535,352	7,344,291	8,651,494	17,866,456	11,726,612	4,293,031	4,494,597	9,218,472
Total Construction Expenditures	23,086,559	21,018,366	28,982,669	19,849,996	31,712,982	45,642,617	54,927,094	32,134,530	36,363,870	45,895,103
Less Amount Reimbursable	0	0	0	0	0	383,941	761,184	397,300	(712,973)	315,006
Net Construction Expenditures	23,086,559	21,018,366	28,982,669	19,849,996	31,712,982	45,258,676	54,165,910	31,737,230	37,076,843	45,580,097
<b>FUNDED FROM REVENUE</b>										
Electric Funded from Construction Fund							26,165,910	2,097,230	16,016,843	14,378,368
Water Funded from Construction Fund							21,215,000	17,490,327	13,212,000	18,459,969
<b>TOTAL FUNDED FROM CONSTRUCTION FUND</b>							6,785,000	12,149,674	7,788,000	12,741,760
BPU Internal Construction Labor	3,542,065	3,658,182	3,586,429	3,579,838	3,747,685	3,966,294	4,325,275	4,679,358	4,550,367	4,500,287
Other	19,544,494	17,360,184	25,396,240	16,270,158	27,965,297	41,925,382	49,840,635	27,057,872	32,526,476	41,079,810
Annual Construction Fund Investment Earnings										
Electric					594,094	691,159	1,535,756	310,206	787,862	811,578
Water					113,546	137,673	254,579	32,356	292,997	270,533
<b>Total</b>					707,641	828,833	1,790,336	342,560	1,080,859	1,082,112



**Table 6**  
**Borrowing Patterns**  
**Kansas City, KS BPU**

At Year End	1986 (a)	1987 (a)	1988	1989	1990 (a) (f)	1991 (a)	1992 (a)	1993	1994 (a)	1995
Principal Amount of Debt Outstanding (000\$)										
Electric Utility	110,186	107,033	97,568	87,564	101,464	122,807	152,066	136,468	174,961	168,838
Water Utility	16,465	19,697	17,357	14,936	17,926	21,737	38,418	36,311	59,924	58,657
<b>Total</b>	126,651	126,730	114,925	102,500	119,390	144,544	190,484	172,779	234,885	227,495
Maximum Annual Debt Service (000\$)										
Water Utility		3,722	3,654	3,585	3,516	3,475	4,298	4,298	4,579	4,579
Electric Utility		17,290	17,221	17,152	17,079	15,481	15,855	15,847	14,660	14,660
<b>Total</b>		21,012	20,875	20,737	20,595	18,956	20,153	20,145	19,239	19,239
Latest Material Debt Service Maturity (year)	1997	1997	1997	1997	1999	2003	2010 (d)	2010 (d)	2023	2023
Expected Retirement Date (year)										
Kaw 1	1995	1995	1995	1995	2010	2010	2010	2010	2010	(e) 2010
Kaw 2	1997	1997	1997	1997	2012	2012	(b)			
Kaw 3	2002	2002	2002	2002	2017	2017	2017	2017	2017	(e) 2017
Quindaro 1	2006	2006	2006	2006	2021	2021	2021	2021	2021	2021
Quindaro 2	2011	2011	2011	2011	2024	2024	2024	2024	2024	2024
Quindaro CT1	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009
Quindaro CT2	2014	2014	2014	2014	2014	2014	2014	2014	2014	2014
Quindaro CT3	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017
Nearman	2021	2021	2021	2021	2036	2036	2036	2036	2036	2036
Increases in Capacity (MW)	0	0	0	0	0	0	(37) (b)	0	0	0
Increases in Capacity (MGD)	0	0	0	0	0	0	0	(24) (c)	0	0

(a) Years in which revenue bonds were issued.

(b) Deactivation of Kaw 2 (37 MW).

(c) Due flood damage.

(d) In addition, there was debt service of less than \$1,000,000 annually through 2016 allocated solely to the water utility.

(e) See "Necessary and Useful Changes."

(f) Implemented 15 year life extension for all steam generating units.

Five figures suggest an interesting story. Those figures, in round numbers, are for the period of January 1, 1992 - December 31, 1995:

Increase in principal amount of bonds (Table 6)	\$ 83,000,000
Principal payments on maturing bonds (Annual Reports)	<u>\$ 49,000,000</u>
Total	\$132,000,000
PILOT payments (Table 7 below)	\$ 32,000,000
Interest paid on bonds (Annual Reports)	<u>\$ 57,000,000</u>
Total	\$ 89,000,000
“Construction” paid from bonds proceeds (Table 5)	\$110,000,000

Some portion of the \$83 million, perhaps, should be analyzed as having been issued to reduce future interest payments in the advance refunds. However, even if all of the \$83 million were used for such purpose, because the total principal amount outstanding was not reduced, the \$49 million of maturing principal in effect was paid from borrowings. Because maturing principal should be paid from revenues, in effect this could be viewed as a borrowing to pay revenue needs. To the extent that less than \$83 million was borrowed to reduce future interest payments, then further operating revenue needs from rates would seem to have been paid, in effect, from borrowing as well. That suggests, in effect, that the dollar amount of expenditures paid from borrowing in such period which would better have been paid from revenues lies somewhere between \$49 and \$132 million.

Looked at another way, to the extent that our view is correct, in recent years a substantial portion of “construction” expenditures were of a normal, recurring nature that should have been funded from revenues, or perhaps even were unnecessary, and the revenues necessary to make PILOT payments and bond interest payments could be said, in effect, to have been replaced from borrowing.

Whatever may be the precise numbers and analysis, it would seem that if the BPU utility rates were at appropriate levels during such period, then for at least the last four years, borrowing has been used

to postpone substantial and imperative expenditure reduction. We picked the 1992 - 1995 period for illustration because that is the period for which the finance department was able to provide us the complete figures, not because we think that the practice began in 1992, although we note material debt extensions began in 1991.

We point out that the latest outstanding maturity of bonds (2023) is later than the expected retirement date of the electric utility generating assets other than Quindaro-2 and Nearman. The water treatment plant life is more difficult to describe, but substantial capital expenditures may be required before 2023. It does little good now to note that only six years ago the latest maturity was scheduled for 1997. However, it would seem apparent that any further extension of debt allocable to the electric utility would be detrimental, and the electric utility cannot afford an increase in annual debt service; indeed, cash needs will be increased just to continue making principal payments. This would seem to suggest that there be no further borrowing.

#### **RELATIONSHIP BETWEEN UTILITIES**

Apparently there is a dispute as to whether overhead, administration, engineering and other non-utility specific costs and debt service are appropriately allocated between the electric and water utilities and whether water utility asset depreciation is within appropriate ranges.

The utilities are supposed to support themselves.

## **RELATIONSHIP BETWEEN CITY AND BPU**

Assertions of political influence within and surrounding the BPU are consistent with employment levels, compensation levels, benefits, uneconomic operations and free and reduced rate service. Certainly the utilities have been used to provide, in addition to service which could be obtained without ownership, dollars for the City general fund through PILOT payments, dollars for the City's general fund through free or reduced rate service, a source of jobs and contracts.

The first two items are summarized on Table 7. Not included in the table are the costs of excess employment levels, excess wage and benefit levels and unnecessary expenditures, which, as discussed elsewhere, have been substantial.

**Table 7**  
**Ownership Return**  
**Kansas City, KS BPU**

Year	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Payment in Lieu of Tax Reserve (PILOT)	5,030,212	5,152,246	5,328,826	6,350,151	6,616,791	7,235,873	7,703,284	8,199,718	7,973,771	8,289,451
WPA Credit Applied to WPA Billings	0	0	0	0	0	0	0	0	(546,000)	(464,000)
Street Lighting & Traffic Signals	3,014,160	2,969,227	3,395,113	3,308,218	3,457,739	3,287,227	3,252,496	3,191,824	3,228,146	3,378,942
Fire Hydrant Services	1,980,152	2,377,931	2,237,386	2,372,368	2,674,048	2,760,262	3,218,559	2,836,490	4,639,632	4,966,431
Payments for City Services	0	0	0	0	0	0	24,000	24,000	24,000	24,000
Payments for Economic Development	0	0	0	0	0	0	15,000	15,000	15,000	15,000
Reductions from Scheduled Rates										
City of Kansas City, KS	211,882	231,168	655,566	2,537,133	2,526,124	2,656,604	2,601,606	2,891,451	1,976,254	2,561,937
Schools	862,695	751,350	696,901	778,091	608,289	752,898	875,336	580,872	365,211	367,674
Wyandotte County	35,673	37,256	73,613	37,304	82,305	79,042	76,542	57,114	59,716	54,126
Hospitals	58,318	56,042	72,128	75,661	70,288	71,919	66,579	68,401	74,316	81,926
Charitable Agencies	17,888	17,452	13,721	12,962	13,075	15,845	18,410	36,487	24,183	20,965
Churches (1)	0	0	0	0	0	0	52,458	141,807	126,748	143,606
Water Pollution Abatement Services	306,155	469,564	634,523	893,760	893,760	893,760	893,760	893,760	893,760	893,760
TOTAL "COMMUNITY DIVIDEND" (4)	11,517,135	12,062,236	13,107,777	16,365,648	16,942,419	17,753,430	18,798,030	18,936,924	18,854,737	20,333,818
TOTAL "CITY DIVIDEND" (4)	10,542,561	11,200,136	12,251,414	15,461,630	16,168,462	16,833,726	17,708,705	18,052,243	18,204,563	19,665,521
Adjusted Gross Revenue (2)	136,839,518	136,629,896	144,105,942	140,042,225	141,588,226	152,429,938	144,497,241	151,472,695	150,220,973	154,117,727
Adjusted Net Revenue (3)							20,823,306	12,707,260	1,564,565	940,464
Percentage of "Community Dividend to Adj. Gross Revenue	8.4	8.8	9.1	11.7	12.0	11.6	13.0	12.5	12.6	13.2
Percentage of "Community Dividend" to Adj. Net Revenue							90.3	149.0	1205.1	2162.1
Percentage of "City Dividend" to Adj. Gross Revenues	7.7	8.2	8.5	11.0	11.4	11.0	12.3	11.9	12.1	12.8
Percentage of "City Dividend" to Adj. Net Revenue							85.0	142.0	1163.6	2091.0

(1) Churches were not separately accounted for until 1992.

(2) Total Operating Revenue plus PILOT plus Interest on Investments plus Other Non-Operating Income.

(3) Audited Net Income (Loss) plus Depreciation and amortization plus PILOT less Debt Principal Payment less Construction Expenditures paid from Revenues.

(4) "Community Dividend" less schools, Wyandotte County, Hospitals, Charitable Agencies and Churches

**BOARD'S FINANCIAL RESPONSIBILITY STATEMENTS**

The Board's Financial Responsibility Statements establish two ratios, the "equity ratio" and the "debt service coverage ratio," to serve as tools to guide the BPU rate setting and borrowing decisions. Table 8 illustrates those ratios for the last ten years.

**Table 8**  
**Ten-Year History<sup>1</sup>**  
**Kansas City, KS BPU**

Year	Equity Ratio (%)			Debt Service Coverage Ratio		
	Electric	Water	Comb.	Electric	Water	Comb.
1986	66	66	66	2.26	2.53	2.38
1987	67	64	67	1.98	1.96	1.97
1988	72	71	72	1.97	2.76	2.11
1989	75	77	76	1.82	2.02	1.85
1990	73	74	73	1.64	1.47	1.71
1991	69	66	69	1.95	1.79	1.84
1992	65	54	63	1.50	1.16	1.35
1993	67	51	64	1.92	1.47	1.73
1994	58	41	55	1.97	1.35	1.82
1995	59	42	56	1.77	1.31	1.64

<sup>1</sup>.As reported by BPU.

A debt service coverage ratio is a measure of the adequacy of cash to pay debt service in a given year, not a target for revenues needed by a utility for its total purposes in that year. If the target debt service coverage ratio is too high, it may encourage unnecessary capital expenditures. If the ratio

is too low, it may not provide enough for necessary capital expenditures. As discussed above, the latter in fact has been the case. Of course, the BPU must meet the coverage requirement imposed by its revenue bond indenture that Net Revenues (as defined) be at least 120 percent of Maximum Annual Debt Service (as defined), but again, falling within the range set forth in Statement No. 2 of the Board's Financial Responsibility Statements (1.6 - 2.1) is not planning based on needs. A flexible statistic driven by another statistic suggests measurement rather than management, reporting rather than analysis.

Statement No. 3 sets a goal of an "equity ratio" within a range (65 - 70%) "over the long run." Our projections are that a continuation of past practices (assuming rates could be increased as needed), would see this ratio continue the decline which began in 1989 (when it was 76% on a combined basis) to below 30% over the next ten years for each utility.

Each utility is, according to the Statements, to meet these ratios.

These ratios are annually reported and projected, but the Statement requirements do not seem to have driven decisions.

For years the annual certificates delivered to meet a bond indenture requirement to demonstrate compliance with the debt service coverage requirement have stated, apparently correctly, that net revenues are not to include construction fund interest earnings and then have consistently included such earnings in the calculation.

The definition of "equity ratio" in Statement No. 3 as consistently repeated for a number of years in official statements and budgets contains a typographical error which renders it, as written, inscrutable. The error is obvious, but its repetition casts doubt on whether anyone has found it necessary to consult the Statements.

The water utility has not met these ratios since 1991, and the combined utility has not met the equity ratio target since 1991.

Number 5 of the Financial Responsibility Statements still includes the direction to exclude the PILOT payment from operating and maintenance expenses, but the PILOT payment has been excluded from reported revenues and expenses since 1988.

None of these points is in itself important, but together they may be symptoms of the failure to emphasize management over measurement.

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## SECTION IV - CHANGES NECESSARY OR USEFUL

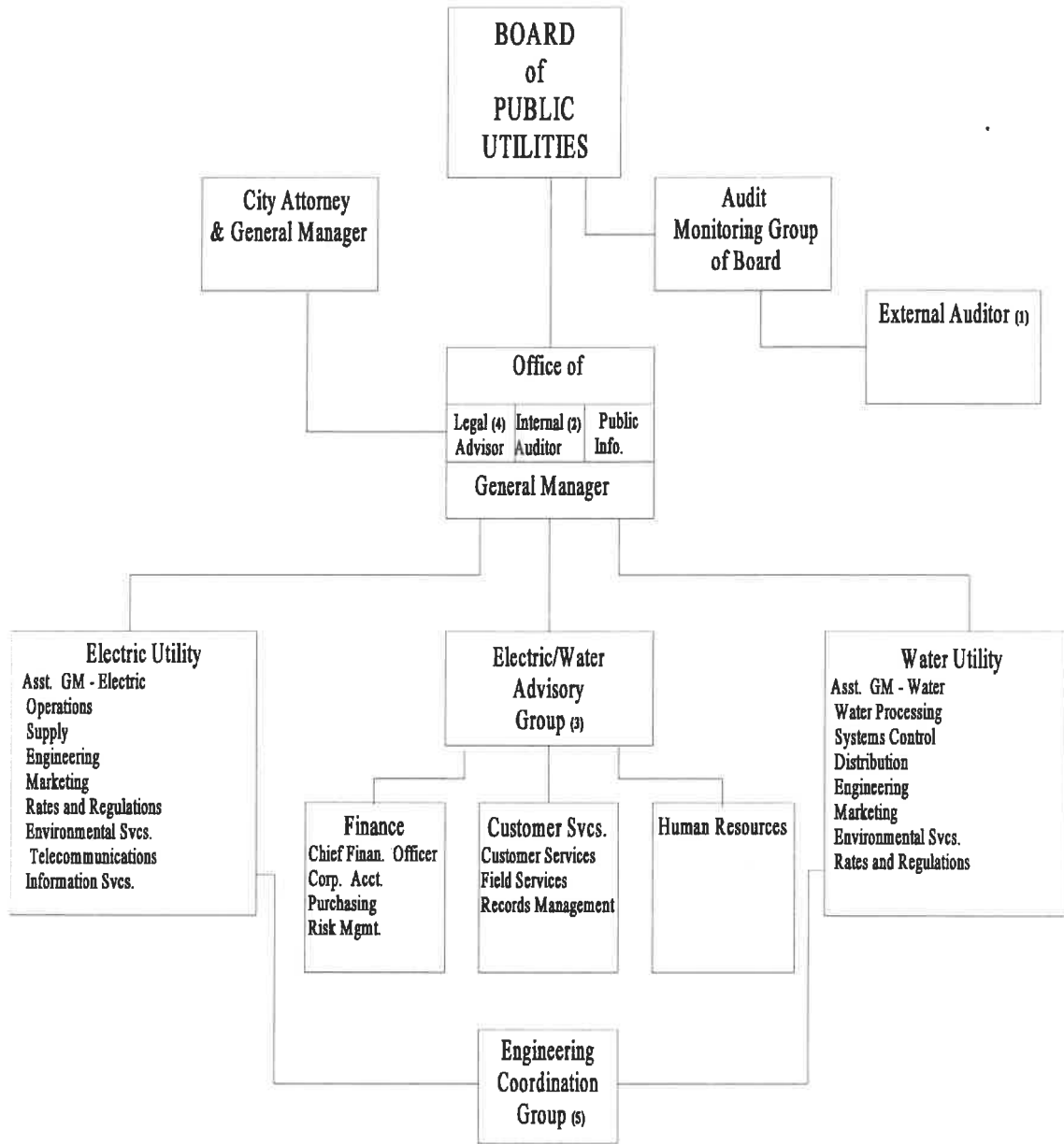
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There are a number of changes which may be necessary or useful if the BPU is to provide in the future quality service on competitive terms in a manner consistent with financial integrity.

### UTILITY ORGANIZATION

The BPU should be reorganized to increase efficiency and clarify lines of responsibility as well as authority. The following chart sets forth our thoughts as to how this might be done. We also suggest that the existing geographic dispersal of management is highly detrimental and should be eliminated.

## Recommended Organizational Chart



### Footnotes 1 - 5

- 1) External Auditor - the external auditor should be a recognized accounting firm and should be hired and, if necessary, fired by the Board and should report directly to the Board. For convenience and efficiency, the Board should appoint a monitoring group comprised of Board members to meet, regularly and as often as necessary, with the independent auditors

to discuss financial affairs and any other matter deemed appropriate by the Board. Until the BPU regains financial and management health, the regular meetings should be not less frequent than quarterly. Such meetings should include in part and exclude in part BPU officers as appropriate for purposes of the external auditor's engagement and the General Manager's duties.

The external auditors should be chosen by Board evaluation and not on a lowest bid basis. As a matter of policy, because the BPU is a political entity and regardless of performance, the auditing firm should be changed not less frequently than every five years. The external auditor should not be retained to perform during its tenure any task not clearly and directly related to that role.

A BPU employee is not in a position to perform this task for the Board.

- 2) Internal Auditor - by the same token, the General Manager should have a trained accountant reporting directly to him. This will assist him in understanding information from the finance department and give him the opportunity to obtain independent advice on a daily basis.
- 3) Electric/Water Advisory Group - timely, accurate and intelligible financial information is an essential management tool for those charged with making business decisions.

In order to facilitate the flow of information to and from the finance department and insure its correct interpretation, the chief financial officer should regularly meet with and report to the General Manager through an Advisory Group consisting of the General Manager, as Chairman, and the heads of the electric and water utilities. This will also assist in eliminating difficulties revolving around issues of cost allocation between the two utilities.

At least initially, each of the electric and water utility heads should have reporting to such head, an employee of that utility who is a trained accountant, to assist in the proper understanding and flow of information.

This should increase the quality of information and reduce the number of management decisions made of necessity in the preparation of such information within the finance department.

The heads of customer service and human resources also would report to the General Manager through the advisory group. In a like manner, employee matters affecting the entire BPU have much in common and should be reported to the General Manager through an advisory group. For this purpose, the chief financial officer, the head of customer services and the head of human resources would be committee members. It would also mean that all employment decisions would be subject to the approval of the General Manager, and would be known to the other departments.

- 4) Legal Advisor - BPU legal matters are handled by the City Attorney. The General Manager, however, of necessity should be conversant and current with all such matters. By the same token, the City Attorney should be conversant and current with all matters of the BPU which might require legal attention. These mutual needs could best be met through establishment of a board consisting of the City Attorney and the General Manager which should meet as needed but not less frequently than monthly.

To enable the General Manager to ensure that all appropriate matters are brought to the Board's attention, there should be a BPU employee, who is an experienced utility lawyer, reporting to the City Attorney and the General Manager as a legal review group. This should facilitate, among other things, preparation and monitoring of contracts and identification and monitoring of potential liabilities for the BPU.

- 5) Engineering Coordination Group - the experiment begun in 1988 to separate the engineering functions from the electric and water operations should be discontinued. Common matters could be coordinated or addressed for economy and efficiency through an Engineering Coordination Group. Responsibility for the success of this cooperation would lie with the heads of the electric and water utilities.

## **ELECTRIC UTILITY**

To the extent that revenues cannot be increased, electric utility operating expenditures other than fuel and purchased power costs must be reduced by 15%. We note that the BPU has an approved but not implemented small rate increase. The Board might be able to place such an increase into effect without adverse competition consequences for the intermediate term. This would have an immediate favorable effect on operating results for 1996. However, this will not by itself be sufficient.

The electric utility should undertake a concentrated effort to enhance receipts through off-system sales. Such efforts should include economy and capacity sales transactions and diversity and pooling arrangements with other municipal systems. Although beneficial, this effort is unlikely to have a significant effect in a time frame which would reduce the need for prompt operating expenditure reductions.

Fuel and purchased power expenses can be reduced significantly through increased use of Nearman and Quindaro and reduced use of Kaw as described earlier, and increased activity in the economy market. This may require some rate schedule adjustments and interconnection and transmission arrangements.

Labor costs constitute by far the largest component of operating expenditures other than fuel and

purchased power costs. Thus, labor costs must be reduced by 15% through either a reduction in the number of employees by approximately 98, a reduction in the per employee cost of 15%, or a combination of the two. The rate increase mentioned above might mitigate somewhat the timing of this necessity.

Electric utility "construction" expenditures should be reduced to approximately \$19 million per year in 1996 dollars.

### **WATER UTILITY**

To the extent that the water utility revenues cannot be increased without adverse consequences, water utility operating expenditures must be reduced by 28%. Labor costs constitute the largest component of operating expenditures and must be reduced through either a reduction in the number of employees, a reduction in the per employee costs, or a combination of the two. A 28% reduction in labor costs from the employee number reduction above would mean a reduction of approximately 63 employees.

### **BORROWING**

The matching of debt burden with the actual useful life of assets so financed is, for municipals, a true depreciation concept, and failure to observe may preclude replacement of major assets in a minimal growth system.

Costs of ordinary, recurring capital improvements that neither increase capacity, extend useful life, nor represent major new extensions into new areas should not be borrowed. These expenditures occur every year and debt financing merely shifts burden of current costs to future years.

## MANAGEMENT TOOLS

Understandable financial reports at the Board level are more important than myriads of unanalyzed facts. The Board needs monthly reports of actual results that can be understood by Board members not trained in the fine art of accounting. The following Table 9 might provide the basis for developing such a report for each utility. The General Manager should be charged with providing a written analysis of material deviations of results to date from budget-to-date amounts, including the significance of such amounts to the annual budget.

Table 9

Monthly Report  
Kansas City, KS BPU

	Month			YTD			Annual Budget	
	Actual	Budget	% Difference	Actual	Budget	% Difference	Total	% to Date
<b>General Fund</b>								
Beginning Balance								
Revenue from Sales to Customers								
Residential								
Commercial								
Industrial								
Other (Sales to Other Munic. not Included)								
<b>Subtotal</b>								
Revenue from Sales to Other Municipals								
Investment Income on General Fund								
Transfer from Other Funds								
Investment Income								
Other								
Other Operating Revenue								
Other Non-Operating Revenue								
PILOT Payments								
<b>TOTAL</b>								
<b>Operation and Maintenance Expenses</b>								
Production Expenses								
Production Operations								
Purchased Power								
Fuel								
Production Maintenance								
<b>Subtotal</b>								



**Table 9**  
**Monthly Report**  
**Kansas City, KS BPU**  
 (continued)

	Month			YTD			Annual Budget	
	Actual	Budget	% Difference	Actual	Budget	% Difference	Total	% to Date
Transmission & Distribution Expenses								
Transmission Expenses								
Distribution Operation								
Distribution Maintenance								
<b>Subtotal</b>								
Other Expenses								
Customer Accounting Expenses								
Administrative & General								
Taxes - Payroll								
<b>Subtotal</b>								
<b>TOTAL O&amp;M EXPENSES</b>								
Deposit to Debt Service Fund								
Payment Due on Bonds (1/6, 1/12 accrual)								
Amount on Deposit Credit								
<b>TOTAL DEPOSIT</b>								
Deposit to Bond Reserve Fund Accounts								
Deposit to Depreciation & Emergency Fund								
Deposit to Rate Stabilization Fund								
Reserves for Identified Risks or Expenses								

**Table 9**  
**Monthly Report**  
**Kansas City, KS BPU**  
 (continued)

	Month			YTD			Annual Budget	
	Actual	Budget	% Difference	Actual	Budget	% Difference	Total	% to Date
Indenture Section 4.06 Disposition								
PILOT payments								
Operating Reserve Retention Ensuing Yr.								
Construction Retention Next Ensuing Yr.								
Purchase of Bonds								
Transfer to City								
Capital Expenditure from Prior Yrs' Reserves								
Insurance Proceeds								
Receipts								
Expenditures								
Ending Balance								
Encumbrances								
Non-Encumbered Ending Balance								
<b>Depreciation and Emergency Fund</b>								
Opening Balance								
Deposits by Source								
Withdrawals by Destination								
Ending Balance								

**Table 9**  
**Monthly Report**  
**Kansas City, KS BPU**  
 (continued)

	Month			YTD			Annual Budget	
	Actual	Budget	% Difference	Actual	Budget	% Difference	Total	% to Date
<b>Bond Reserve Funds (Accounts per Issue)</b>								
Opening Balance								
Deposits by Source								
Withdrawals by Destination								
Ending Balance								
<b>Rate Stabilization Fund</b>								
Opening Balance								
Deposits by Source								
Withdrawals by Destination								
Ending Balance								
<b>Construction Fund per Issue</b>								
Opening Balance								
Deposits								
Initial Bond Proceeds Deposit								
Earnings								
Other								
Withdrawals by Destination								
Ending Balance								

Reliance on ratios and formulae should be replaced with an analysis of projected needs. These needs include reducing the principal amount of debt outstanding and funding needed normal, recurring capital expenditures out of revenues. The Board should review annually with management projections showing at least the detail of the report form suggested above covering approximately ten years.

## **BUDGET**

The annual Budget should be monitored continuously and amended, if necessary, to reflect known variances as they are identified. There is no need for year-end surprises. This will require better coordination and communication with the City on review of legal matters.

The budget should be prepared with known debt service charges and conservative estimates of investment income.

The budget should be prepared on a normalized weather basis and the Board should receive each year-end a report showing weather normalized results that can be compared with the budget for that year so as to track budgeting reliability and monitor trends. This is in addition to monitoring actual results.

Annual Budget books should include an estimate of the actual results of the year prior to the Budgeted Year.

## **RATE STABILIZATION FUND AND RESERVE AND IMPROVEMENT FUND**

The BPU revenue bond indenture provides for a "Rate Stabilization Fund," but it has never been used and is neither usefully structured nor conceived.

Either within or without the indenture, the BPU should establish and use a rate stabilization fund

which would normalize the effects of other than normal weather. Adjustments to rates to reflect needed deposits to or any appropriate reductions from the balance in such funds should be automatic.

The BPU revenue bond indenture provides for a “Depreciation and Emergency Fund,” but it is not used and we are not certain from its language how it was intended to be used. Regardless, the BPU should have and use within or without the Indenture a Reserve and Improvement Fund to accumulate money from which would be paid extraordinary operation and maintenance costs, costs of extraordinary renewals and replacements, costs of emergency repairs and the costs of extensions, enlargements or additions and costs of retirement of utility assets.

#### RELATIONSHIP TO CITY - CAPSTONE

The elected BPU Board is a part of a political subdivision that itself has an elected governing body, so a certain amount of political influence is inevitable. An acceptable level rather than perfection is the only achievable goal. More process and thus bureaucracy won't do it — financial incentive might. Two possible changes suggest themselves, one is the elimination or reduction of free or reduced rate services. Obviously this is a political matter, because it affects who bears burdens, but the point should definitely be kept in mind when evaluating benefits of ownership in competitive environment. It clearly is a part of the City Dividend. Furthermore, of course, free service may encourage consumption, exacerbating the burden on the utility as well as subsidizing other activities, such as free water to golf courses, not only encouraging heavy watering but at the same time subsidizing golfers' green fees.

Finally, the PILOT should be paid to the City from the bottom of the flow of funds, after provision for debt service, operation and maintenance expenses and capital improvements. Taxes foregone may be a reasonable target for ownership benefits, but payment regardless of operating results confuses the relationship and introduces destructive incentives. The theory is foregone taxes, but nonetheless, payment to the City (contrasted with collection of a component of rates) should depend on viability. This is the shareholder risk for a shareholder that didn't buy common stock. More importantly, it gives the sole shareholder a reason to see to it that the BPU is managed efficiently,

because the alternative would be to raise City taxes. There is another upside in that increased profits would increase the potential payment to the City.