

Exhibit No.:  
Issues: Rate of Return for St. Joseph  
Frozen Capital Structure  
Acquisition Premium  
Witness: David P. Broadwater  
Sponsoring Party: MoPSC Staff  
Type of Exhibit: Replacement Pages for  
Rebuttal Testimony  
Case No.: EM-2000-292

**MISSOURI PUBLIC SERVICE COMMISSION**

**UTILITY SERVICES DIVISION**

**REPLACEMENT PAGES**

**FOR**

**REBUTTAL TESTIMONY**

**OF**

**DAVID P. BROADWATER**

**UTILICORP UNITED INC.**

**AND**

**EMPIRE DISTRICT ELECTRIC COMPANY**

**CASE NO. EM-2000-292**

Exhibit No. 724  
Date 7/12/00 Case No. EM-2000-292  
Reporter KEM

Jefferson City, Missouri  
July 2000

**\*\*Denotes Highly Confidential Information\*\***

**NP**

1 Q. Why is a total weighted cost of capital synonymous with a fair rate of  
2 return?

3 A. From a financial viewpoint, a company employs different forms of capital  
4 to support or fund the assets of the company. Each different form of capital has a cost  
5 and these costs are weighted proportionately to fund each dollar invested in the assets.

6 Assuming that the various forms of capital are within a reasonable balance and  
7 are costed correctly, the resulting total weighted cost of capital, when applied to rate  
8 base, will provide the funds necessary to service the various forms of capital. Thus, the  
9 total weighted cost of capital corresponds to a fair rate of return for the utility company.

10  
11 **Capital Structure and Embedded Costs**

12 Q. What capital structure have you employed in developing a weighted cost  
13 of capital for St. Joseph?

14 A. My analysis is based upon St. Joseph's capital structure as of December 31,  
15 1999. Schedule 11 presents St. Joseph's capital structure and associated capital ratios.  
16 The resulting capital structure consists of 54.92% common stock equity, 0.00% preferred  
17 stock, 38.17% long-term debt and 6.91% short-term debt. St. Joseph had no preferred  
18 stock outstanding at December 31, 1999. The amount of long-term debt includes current  
19 maturities due within one year and was reduced by \$1,238,415 (see Schedules 12-2 and  
20 12-3) for the net balance associated with losses on reacquired debt and unamortized debt  
21 issuance expenses.

22 Q. Is this the capital structure you are recommending that the Commission adopt  
23 in this case, or are you recommending a hypothetical capital structure?

1           A. No. In the past the Staff has used a hypothetical capital structure for  
2 St. Joseph due to the excessive amount of common equity that was used in their capital  
3 structure. However, as of December 31, 1999, St. Joseph's capital structure did not  
4 contain an excessive amount of common equity based on the methodology Staff has  
5 historically used to make this determination. Therefore, Staff is recommending that the  
6 Commission adopt St. Joseph's actual capital structure as of December 31, 1999.

7           Q. Would you please explain the methodology Staff used to determine if  
8 a company's capital structure contains an excessive amount of common equity?

9           A. First the Staff applies appropriate criteria to select a group of companies that  
10 are comparable to the company being analyzed. In this case that company is St. Joseph.  
11 Once the comparable companies have been selected, the Staff calculates an average  
12 capital structure for the comparable company group as well as the standard deviation.  
13 From the average capital structure for the comparable companies the equity ratio is taken  
14 and then a range of one standard deviation on each side of the average is determined. If  
15 the company being analyzed has a common equity ratio that falls within this range of one  
16 standard deviation from the average, then the common equity ratio for the company being  
17 analyzed considered reasonable.

18          Q. What was the embedded cost of debt for St. Joseph on December 31,  
19 1998?

20          A. I determined it to be 8.44% (see Schedule 12). I also determined the  
21 embedded cost of short-term debt to be 6.32%. The embedded cost of short-term debt is  
22 equal to St. Joseph's cost of short-term debt for the month of December 1999.

1 the appropriate market risk premium was determined to the market risk premium for the  
2 time period 1926 through 1998 as calculated in Ibbotson Associates, Inc.'s *Stocks, Bonds,*  
3 *Bills, and Inflation: 1999 Yearbook.*

4 Schedule 19 presents the CAPM analysis with regard to the comparable  
5 companies. The CAPM analysis produces an estimated cost of equity range of 8.87% to  
6 9.62% for the comparable companies with an average of 9.39%. This provides support to  
7 the DCF cost of equity estimate developed by Staff in St. Joseph's last rate case, and  
8 proposed to be used by Staff in this analysis of St. Joseph

9 **Rate of Return for St. Joseph**

10 Q. Please explain how the returns developed for each capital component are  
11 used in the ratemaking approach you have adopted to be applied to St. Joseph's  
12 operations.

13 A. The cost of service ratemaking method was adopted in this case. This  
14 approach develops the public utility's revenue requirement. The cost of service (revenue  
15 requirement) is based on the following components: revenues, prudent operation costs,  
16 rate base and a return allowed on the rate base (see Schedule 20).

17 It is my responsibility to calculate and recommend a rate of return that should be  
18 authorized on the rate base of St. Joseph. Under the cost of service ratemaking approach,  
19 a weighted cost of capital in the range of 8.75% to 9.43% was developed for St. Joseph's  
20 operations (see Schedule 21). This rate was calculated by applying an embedded cost of  
21 short-term debt of 6.32%, an embedded cost of long-term debt of 8.44%, and a return on  
22 common equity range of 9.27% to 10.51% to a capital structure consisting of 6.91%  
23 short-term debt, 38.17% long-term debt, and 54.92% common equity. Therefore, as I

1 suggested earlier, I am recommending that St. Joseph Light & Power's Missouri utility  
2 operations be allowed to earn a return on its original cost rate base in the range of 8.75%  
3 to 9.43%.

4 Through this analysis, I believe I have developed a fair and reasonable rate of  
5 return. My rate of return is based on a return on common equity range of 9.27% to  
6 10.51%. My return range is based on the current and projected economic conditions.  
7 This range is sufficient to assure confidence in the financial soundness of the utility and  
8 will be adequate, under efficient and economical management, to allow St. Joseph to  
9 raise the money necessary for the proper discharge of its public duties.

10  
11 **FROZEN CAPITAL STRUCTURE**

12 Q. Why does the Staff believe that UtiliCorp is proposing to use the current  
13 capital structure of St. Joseph to set rates for St. Joseph customers after the merger?

14 A. UtiliCorp's capital costs are less than those of St. Joseph and this is one of  
15 several indirect ways in which UtiliCorp plans on recovering 50% of the acquisition  
16 premium for which they are not seeking direct recovery.

17 Q. What is St. Joseph's current capital structure that UtiliCorp referred to in  
18 its Regulatory Plan?

19 A. On page 28 of the Direct Testimony of John W. McKinney, he states  
20 that UtiliCorp is proposing the capital structure for St. Joseph be maintained at the level  
21 proposed by Staff in St. Joseph's last rate case (Case No. ER-99-247) that consisted of  
22 approximately 53% common equity and 47% long-term debt. St. Joseph's current capital  
23 structure is approximately 58.37% common equity and 41.63% long-term debt (excluding

1 looked at trading statistics for comparable electric companies, as well as mergers in the  
2 electric utility industry from 1998, and mergers in the gas utility industry for 1997 and  
3 1998.

4 In the DCF analysis conducted by Morgan Stanley, it determined the estimated  
5 cash flows for a nine-year period, then it discounted the cash flows to present and finally  
6 Morgan Stanley determined the present value of the terminal value of St. Joseph.  
7 Morgan Stanley used a range of growth rates in its analysis of \*\* \_\_\_\_\_ \*\* to \*\* \_\_\_\_\_ \*\*.   
8 Morgan Stanley also estimated the discount rate for St. Joseph to be in the range of  
9 \*\* \_\_\_\_\_ \*\* to \*\* \_\_\_\_\_ \*\*.

10 Q. What is the significance of the discount rate used to discount future cash  
11 flows?

12 A. The discount rate used to value a company should be the weighted average  
13 cost of capital of the acquiring firm. When St. Joseph was determining its value, it would  
14 have been appropriate for Morgan Stanley to use St. Joseph's cost of capital as the  
15 discount rate in the analysis. The weighted average cost of capital would be 8.03% based  
16 on St. Joseph's last rate case.

17 Q. At the time of Morgan Stanley's February 19, 1999 presentation to the  
18 Board of Directors of St. Joseph, had Staff filed its testimony on Case No. ER-99-247?

19 A. No, but the Staff had filed testimony in Case No. EC-98-573. In Case No.  
20 EC-98-573, the ~~pre-tax~~ cost of capital proposed by Staff was essentially identical to what  
21 Staff filed in Case No. ER-99-247.

22 Q. What were the assumptions and results of the discounted cash flow  
23 analysis performed by Morgan Stanley on St. Joseph's behalf?

1           A.     As stated above, Morgan Stanley used growth rates in the range of  
2     \*\*\_\_\_\_\_\*\* to \*\*\_\_\_\_\_\*\* and discount rates of \*\*\_\_\_\_\_\*\* to \*\*\_\_\_\_\_\*\*. With those  
3     variables and the cash flow projections done by Morgan Stanley, they estimated  
4     St. Joseph's value to be in the range of \*\*\_\_\_\_\_\*\* to \*\*\_\_\_\_\_\*\* per share.

5           Q.     Given the cash flow projections of St. Joseph by Morgan Stanley and the  
6     savings projections given by UtiliCorp, what are the implied assumptions (i.e., discount  
7     rate and growth rate) of the \$23.00 per share bid for St. Joseph's common stock?

8           A.     Staff relied primarily on Morgan Stanley's February 19, 1999 cash flow  
9     projections because Morgan Stanley acknowledged in discussions with Staff that they  
10    were more accurate than the October 6, 1998 analysis. For purposes of the February 19,  
11    1999 DCF analysis, Morgan Stanley used a growth rate of \*\*\_\_\_\_\_\*\* to \*\*\_\_\_\_\_\*\*.  
12    Using those parameters for growth, those amounts would imply a discount rate of  
13    approximately \*\*\_\_\_\_\_\*\* to \*\*\_\_\_\_\_\*\* used by UtiliCorp. (See Schedule 23-4)

14          Q.     What would be the price per share of St. Joseph given the cash flow  
15    projections of Morgan Stanley and the cost of capital from the last St. Joseph rate case as  
16    the discount rate?

17          A.     In St. Joseph's most recent rate proceeding, the Staff estimated the ~~pretax~~  
18    cost of capital to be approximately 8.03%. When that is used as the discount rate to find  
19    the present value of the cash flows as estimated by St. Joseph and Morgan Stanley, for  
20    that is augmented by the savings estimates of UtiliCorp, then you come up with a value  
21    for St. Joseph of approximately \*\*\_\_\_\_\_\*\* per share is derived. (See Schedule 23-4)

22

1           Q.     What would be the price per share of St. Joseph given the growth rates  
2 defined by Morgan Stanley and UtiliCorp's cost of capital?

3           A.     UtiliCorp is proposing an \*\* \_\_\_\_\_ \*\* pretax cost of capital, for purposes  
4 of its analysis of the amortization of the acquisition premium. ~~Including~~ UtiliCorp's cost  
5 of capital from its last rate case (ER-97-394) was 7.39%. If 7.39% was used in the  
6 discounted cash flow analysis of St. Joseph including the additional cash flows produced  
7 by the savings from the merger, it produces a value for St. Joseph of between  
8 approximately \*\* \_\_\_\_\_ \*\* and \*\* \_\_\_\_\_ \*\* per share. (See Schedule 23-3)

9           Q.     Which of the above values for St. Joseph should the Commission consider  
10 when valuing the amount of the acquisition premium?

11          A.     The Commission needs to decide what the appropriate value of St. Joseph  
12 is if it plans on reflecting all, or a portion, of the acquisition premium in rates.  
13 Determining the value of a utility company is nothing new for a utility commission. It is  
14 done in every contested rate case in which cost of capital is an issue. The only difference  
15 is in this analysis; the Commission needs to decide what the value of the St. Joseph is  
16 and, in a rate case, the value is a given and the appropriate discount rate is what is at  
17 question. In both cases, the theoretical concept is identical. The only difference is the  
18 factor of the equation that we are solving for.

19          The Staff believes that the most appropriate value for St. Joseph is the value that  
20 uses UtiliCorp's cost of capital as the discount rate. When UtiliCorp's cost of capital is  
21 used to discount the future cash flows of St. Joseph that have been estimated by Morgan  
22 Stanley and St. Joseph that include the merger savings estimated by UtiliCorp, it  
23 produces a value for St. Joseph on a per-share basis of between approximately



1    ~~\*\* \_\_\_\_\_ \*\* and \*\* \_\_\_\_\_ \*\* per share. The high end of Staff's valuation range supports~~  
2    ~~the market value of St. Joseph prior to the merger.~~

3            Q.    Is recovery of the acquisition premium using this valuation the position  
4    that the Staff is supporting in this case?

5            A.    No. The Staff's position is that UtiliCorp should not receive any direct  
6    recovery of the acquisition premium. The acquisition premium is a shareholder cost and  
7    should not be allowed in rates. To further illustrate this point, let us look at an example  
8    where a utility sells an asset at a premium to its book value. In this example, the Staff  
9    position would be that the gain goes to shareholders and is not included in rates as an  
10   offset to rate base. The Staff's position concerning the acquisition premium is consistent  
11   with the Commission's historical treatment of premiums on assets sales. If, and only if,  
12   the Commission decides to change its policy and allow direct recovery of all or part of  
13   the acquisition premium, does there come a need to determine what is the true value for  
14   St. Joseph. In that event, the Commission should utilize the Staff's recommended  
15   discount rates ~~which produce a value of St. Joseph of \*\* \_\_\_\_\_ \*\* to \*\* \_\_\_\_\_ \*\* per~~  
16   ~~share.~~

17    **Bid Evaluation Process**

18            Q.    Please explain the bid evaluation process as it relates to St. Joseph.

19            A.    As discussed in the direct testimony of Mr. Steinbecker, St. Joseph  
20    received preliminary bids in December 1998 from three companies. In January 1999,  
21    St. Joseph provided the bidders with information to do their due diligence work. In  
22    February 1999, the binding bids were received. There were two binding bids received by  
23    St. Joseph -- one for \$21.28 per share and UtiliCorp's bid of \$22.50 per share. After the

UtiliCorp United Inc. & St. Joseph Light & Power Company  
EM-2000-292

**Capital Structure as of December 31, 1999  
for St. Joseph Light and Power Company (Consolidated Basis)**

Capital Component	Amount in Dollars	Percentage of Capital
Common Stock Equity	\$96,187,816	54.92%
Preferred Stock	0	0.00%
Long-Term Debt	66,861,585	38.17%
Short-Term Debt	12,101,424	6.91%
<b>Total Capitalization</b>	<b><u>\$175,150,825</u></b>	<b><u>100.00%</u></b>

**Financial Ratio Benchmarks  
Total Debt / Total Capital - Including Preferred Stock**

Standard & Poor's Corporation's  
Utility Rating Service 9/30/98  
Electric Utility Companies  
(Average Business Position)

AA	A	BBB
42%	56%	63%

UtiliCorp United Inc. & St. Joseph Light & Power Company  
EM-2000-292

**Embedded Cost of Long-Term Debt as of December 31, 1999  
for St. Joseph Light and Power Company**

	(1)	(2)	(3)
	Interest Rate	Principal Amount Outstanding (12/31/99)	Annualized Cost to Company (1 * 2)
<b>Long-Term Debt</b>			
<b>First Mortgage Bonds:</b>			
9.44% Series due February 1, 2021	9.440%	\$22,500,000	\$2,124,000
5.85% Series due February 1, 2013	5.850%	5,600,000	327,600
<b>Medium-Term Notes</b>			
7.13% Series due November 29, 2013	7.130%	1,000,000	71,300
7.16% Series due November 29, 2013	7.160%	3,000,000	214,800
7.16% Series due November 29, 2013	7.160%	3,000,000	214,800
7.16% Series due November 29, 2013	7.160%	3,000,000	214,800
7.17% Series due December 1, 2023	7.170%	2,000,000	143,400
7.17% Series due December 1, 2023	7.170%	5,000,000	358,500
7.33% Series due November 30, 2023	7.330%	3,000,000	219,900
8.36% Series due March 15, 2005	8.360%	20,000,000	1,672,000
Less: Unamortized Debt Issuance Expense		(438,009)	
Less: Unamortized Losses on Reacquired Debt		(800,406)	
Add: Annual Amortized Debt Issuance Expense			35,774
Add: Annual Amortized Losses on Reacquired Debt Expense			48,100
Total		<u>\$66,861,585</u>	<u>\$5,644,974</u>
Embedded Cost of Long-Term Debt =			\$5,644,974
			<u>\$66,861,585</u>
			= <b>8.44%</b>

**Notes:**

See Schedule 12-2 for the amounts of the Unamortized Premium & Debt Discount and the Annual Amortized Debt Discount Expense.

Sources: St. Joseph Light and Power Company's response to Staff's Data Information Requests No. 3802.

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UtiliCorp United Inc. & St. Joseph Light & Power Company  
EM-2000-292

**Weighted Cost of Capital as of December 31, 1999  
for St. Joseph Light and Power Company (Consolidated Basis)**

Capital Component	Percentage of Capital	Embedded Cost	Weighted Cost of Capital Using Common Equity Return of:		
			9.27%	9.89%	10.51%
Common Stock Equity	54.92%	-----	5.09%	5.43%	5.77%
Preferred Stock	0.00%	0.00%	0.00%	0.00%	0.00%
Long-Term Debt	38.17%	8.44%	3.22%	3.22%	3.22%
Short-Term Debt	6.91%	6.32%	0.44%	0.44%	0.44%
Total	<u>100.00%</u>		<u>8.75%</u>	<u>9.09%</u>	<u>9.43%</u>

Notes:

See Schedule 11 for the Capital Structure Ratios.

See Schedule 12-1 for the Embedded Cost of Long-Term Debt.

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**Schedule 23 Has  
Been Deemed Highly  
Confidential In Its  
Entirety**