

Exhibit No.	
Issue(s)	<hr/> Rate of Return
Witness	Charles W. King
Type of Exhibit	Rebuttal Testimony
Sponsoring Party	Public Counsel

REBUTTAL TESTIMONY

OF

CHARLES W. KING

Submitted on Behalf of
The Office of Public Counsel

THE EMPIRE DISTRICT ELECTRIC COMPANY

Case No. ER-2006- 0315

July 28, 2006

**REBUTTAL TESTIMONY OF
CHARLES W. KING**

INTRODUCTION

Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.

A. My name is Charles W. King. I am President of the economic consulting firm of Snavely King Majoros O'Connor & Lee, Inc. My business address is 1111 14th Street, N.W., Suite 300, Washington, DC 20005.

Q. ARE YOU THE SAME CHARLES W. KING WHO SUBMITTED DIRECT TESTIMONY IN THIS CASE ON BEHALF OF PUBLIC COUNSEL ON JUNE 23, 2006?

A. Yes. I am.

Q. IS THIS TESTIMONY ALSO SUBMITTED ON BEHALF OF PUBLIC COUNSEL?

A. Yes. It is.

SHORT-TERM DEBT

Q. WHAT IS THE ISSUE WITH RESPECT TO SHORT-TERM DEBT?

A. The issue is the need to revise the capital structure I presented in Schedule CWK-1 attached to my initial direct testimony.

Q. WHY ARE YOU REVISING THE CAPITAL STRUCTURE YOU PRESENTED IN YOUR INITIAL DIRECT TESTIMONY?

1
2 A. As I pointed out on page 5 of my direct testimony, the amount of short term debt
3 included in the capital structure is to some extent based on the outstanding
4 amount of Construction Work In Progress ("CWIP"). In Missouri, CWIP is not
5 included in the rate base. I understand that it is the practice in Missouri to offset
6 any short-term debt balances against the CWIP balances. If CWIP exceeds the
7 short-term debt, then short-term debt should not be included in the capital
8 structure used to compute the return to rate base.

9
10 In Schedule 1 attached to my direct testimony, I showed a CWIP balance of
11 \$13,143,000 for the month ending March 31, 2006. I have been informed that this
12 is the amount of CWIP activity during March, not the total CWIP balance at the
13 end of the month. Empire has since provided me with its March 31, 2006
14 financial statement, which shows that the CWIP balance on that date was
15 approximately \$52 million. Since this amount exceeds the \$46 million in short-
16 term debt as of that date, Missouri PSC practice would eliminate any short-term
17 debt from the capital structure used to determine the return on rate base.

18
19 **Q. HAVE YOU PREPARED A REVISED VERSION OF YOUR SCHEDULE**
20 **CWK-1 THAT REFLECTS THE ABSENCE OF ANY SHORT-TERM**
21 **DEBT?**

22
23 A. Yes. Schedule CWK-1 (Revised) shows the calculation of the return to rate base
24 without any attribution of short-term debt. The overall rate of return is 8.30
25 percent as compared with 8.19 percent as shown in Schedule CWK-1 attached to
26 my initial direct testimony.

27
28 **Q. HAVE YOU UPDATED ANY OF THE OTHER DATA IN SCHEDULE**
29 **CWK-1?**
30

1 A. No. I understand that these data will be updated in the true-up prepared by
2 Commission Staff and the parties just prior to the hearing in September.
3

4 **JAMES VANDERWEIDE**
5

6 **Q. WHAT RATE OF RETURN TO EQUITY HAS EMPIRE WITNESS**
7 **JAMES VANDERWIEDE RECOMMENDED?**
8

9 A. Dr. VanderWeide recommends a return on equity of 11.7 percent. This value is
10 based on his claim that his proxy group of electric companies has an equity return
11 requirement of 11.3 percent, a number derived by averaging his DCF result with
12 those from his CAPM application and his two risk premium analyses. He derives
13 11.7 percent for Empire by applying the composite capital cost of the proxy group
14 to the capital structure of Empire. Dr. VanderWeide alleges that this increase is
15 appropriate to reflect the greater financial risk of Empire's more leveraged capital
16 structure relative to that of the proxy group.
17

18 **Q. HAVE YOU ALREADY ADDRESSED SOME OF THE MANY**
19 **INFIRMITIES OF DR. VANDERWIEDE'S EQUITY RETURN**
20 **ANALYSIS?**
21

22 A. Yes. In my initial direct testimony, I made the following points with respect to
23 Dr. VanderWeide's equity return analysis:
24 • Dr. VanderWeide's proxy group of electric companies includes two
25 companies, FPL Group and Constellation Energy, that have announced a
26 merger, in violation of the fifth of Dr. VanderWeide's selection criteria (p.
27 6)
28 • Dr. VanderWeide's proxy group of electric companies includes four
29 companies that are more heavily involved in gas distribution than electric
30 service (p.6).

- 1 • Dr. VanderWeide's proxy group of electric companies includes one
2 company, MDU Resources, that is most heavily involved in non-utility
3 activities (p.6).
- 4 • Dr. VanderWeide's proxy group of electric companies includes TXU
5 Corporation which has an equity percentage of approximately 3.5 percent
6 (p.6).
- 7 • Dr. VanderWeide's proxy group of electric companies includes 10
8 companies that have less than 75 percent of their revenues derived from
9 regulated operations. By contrast, Empire derived 93.2 percent of its
10 revenues from regulated electric service in 2005 (pp. 6, 7).
- 11 • Dr. VanderWeide forecasts next year's dividend by applying the "g"
12 factor to the current year's dividend, thereby assuming unrealistically that
13 each company will increase its dividends regardless of its cash flow
14 condition (p. 17).
- 15 • Dr. VanderWeide applies the quarterly compounding procedure to next
16 year's dividend, even though the compound earnings are not the
17 responsibility of the dividend-issuing company (p.17).
- 18 • Dr. VanderWeide uses earnings forecasts from a single source, I/B/E/S,
19 when other sources, such as Value Line and Zacks.com, are also available
20 (p.17).
- 21 • Dr. VanderWeide's "ex ante" risk premium analysis is self-contradictory.
22 It uses a DCF series that shows the November 2005 return requirement at
23 9.66 percent to derive a rate of return indication of 10.9 percent (p.25).
- 24 • The variation in the historical risk premiums in Dr. VanderWeide's "ex
25 post" risk premium analysis is so great as to render the average
26 statistically unreliable (p.26).
- 27 • Dr. VanderWeide's "ex post" analysis is based on the unsupportable
28 assumption that the average realized return represents a valid expression
29 of expected return (pp. 26, 27).

- Dr. VanderWeide's "ex post" analysis makes the incorrect assumption that risk premiums do not vary over time (p.27).

Q. DO YOU HAVE ANY FURTHER REBUTTAL TO DR. VANDERWEIDE?

A. Yes. I would like to respond to Dr. VanderWeide's criticisms of the DCF method and to his assertion that Empire has greater financial risk than his proxy group of companies.

Q. WHAT ARE DR. VANDERWIEDE'S CRITICISMS OF THE DCF APPROACH?

A. At pages 30 and 31 of his testimony, Dr. VanderWeide offers two criticisms of the DCF approach. First, he argues that the DCF approach does not make economic sense because DCF results have varied more than interest rates over the last four years. Specifically, he notes that the range of DCF results has been 442 basis points while that of interest rates has been only 330 basis points. He further notes that the standard deviation of DCF results has been 153 basis points compared with only 93 basis points for interest rates.

Dr. VanderWeide's second criticism of the DCF approach has to do with the result. His DCF finding of 9.9 percent is significantly below the results of his other tests, namely the CAPM and his two risk premium analyses.

Q. WHAT IS YOUR RESPONSE TO THE FIRST OF THESE CRITICISMS?

A. The relative variability of DCF indications and interest rates noted by Dr. VanderWeide makes considerable economic sense. First, from a purely statistical standpoint, it is to be expected that the absolute variation around a higher average (DCF equity returns) would be greater than the variation around a lower average

1 (interest rates). Interest rates (Dr. VanderWeide does not say which) have been in
2 the 3 to 6 percent range during the past four years, averaging, say, 5 percent.
3 Utility DCF returns (again unidentified) have probably ranged from the low 9
4 percent to about 11 percent averaging, say, 10 percent. The same degree of
5 variability around a 5 percent average would be exactly half that around a 10
6 percent average if both are expressed in absolute terms. In fact, Dr.
7 VanderWeide's range of interest rates is considerable less than half the range of
8 DCF return indications.

9

10 But even if there were more variability in DCF returns than interest rates, that
11 greater variability is to be expected. That is because equity investment is more
12 risky than debt investment, which explains why investors expect higher returns
13 from equity. Equity investment receives the residual earnings of any company
14 after its debt obligations – interest and debt redemption – are met, and so the
15 likelihood of failing to meet expected equity returns is far less assured. It is to be
16 expected that equity returns would vary far more than interest rates.

17

18 **Q. WHAT IS YOUR RESPONSE TO THE SECOND OF DR.**
19 **VANDERWIEDE'S CRITICISMS OF THE DCF APPROACH?**

20

21 A. Dr. VanderWeide argues that the DCF results for electric utilities deviate
22 significantly from the cost of equity results obtained from other cost of equity
23 methods, namely, the CAPM and his two risk premium approaches.

24

25 The fault is not with the DCF approach, but with the other methods. In my direct
26 testimony, I note the considerable judgment that goes into any CAPM application,
27 and I apply a set of very reasonable CAPM inputs to derive a result that is only 20
28 basis points different from my DCF return indication. As for the two risk
29 premium tests, I demonstrate that each is based on totally unreasonable

1 assumptions, and the ex post approach is statistically unreliable as well. They are
2 so flawed that they cannot be used to denigrate the DCF approach.
3

4 **Q. WHAT IS THE BASIS FOR DR. VANDERWEIDE'S ASSERTION THAT**
5 **EMPIRE HAS GREATER FINANCIAL RISK THAN HIS PROXY GROUP**
6 **OF COMPANIES?**
7

8 A. The basis for this claim is two tables toward the end of Dr. VanderWeide's
9 testimony. The first is Table 5 on page 52, which shows the capital structure and
10 the weighted average cost of capital for Dr. VanderWeide's proxy group. This
11 table indicates that the proxy group has an average common equity proportion of
12 61.46 percent. The second table is Table 7 on page 53, which shows Empire as
13 having a common equity proportion of only 51.45 percent.
14

15 **Q. IS THERE ANYTHING WRONG WITH THIS COMPARISON?**
16

17 A. Yes. This is an apples-and-oranges comparison. The equity percentage for the
18 proxy group in Table 5 is based on market valuations, that is, the market price of
19 the stock times the number of shares outstanding. Empire's equity percentage on
20 Table 7 is based on its book value, a very different number both by definition and
21 in absolute value. Market value is the trading value of the stock. Book value is
22 an expression of the historical commitment of capital assignable to equity
23 investors. On July 25, the market value of Empire's stock was \$21.27 per share.
24 The book value of Empire's stock is currently about \$15.55.
25

26 **Q. WHAT ARE THE TRULY MEANINGFUL COMPARISONS BETWEEN**
27 **THE PROXY COMPANIES' CAPITAL STRUCTURES AND THAT OF**
28 **EMPIRE?**
29

1 A. Meaningful comparisons of book values are shown on Schedules CWK-3 and
2 CWK-4 attached to my direct testimony. Line 1 on those schedules shows that
3 the equity proportion of Empire's permanent book capital (exclusive of short-term
4 debt) at the end of 2005 was 48.36 percent, which is higher than the
5 corresponding book equity proportion of my "broad group" of comparable
6 companies of 44.5 percent (CWK-3) and the book equity proportion of 45.15
7 percent for my "narrow group" (CWK-4).

8
9 Schedule CWK-9 attached to this testimony provides the apples-to-apples
10 comparison using market valuations. It reveals that Empire's market-value equity
11 is 60.99 percent, only fractionally lower than the 61.46 percent that Dr.
12 VanderWeide finds for his comparison group.

13
14 Based on these comparisons, it is clear that Empire does not experience any
15 greater financial risk than do the proxy groups of either Dr. VanderWeide or
16 myself. If anything, it has a lower financial risk than the typical electric utility, as
17 demonstrated in Schedules CWK-3 and CWK-4.

18
19 **DAVID MURRAY**

20
21 **Q. WHAT RATE OF RETURN TO EQUITY DOES DAVID MURRAY**
22 **RECOMMEND FOR EMPIRE?**

23
24 A. Mr. Murray finds that Empire's rate of return is in the range of 9.20 to 9.50
25 percent.

26
27 **Q. HOW DOES THIS RECOMMENDATION COMPARE WITH YOURS?**

28
29 A. I have recommended a rate of return to equity of 9.65 percent, which is 15 to 45
30 basis points higher than Mr. Murray's range.

1

2 **Q. WHAT ACCOUNTS FOR THE DIFFERENCE IN YOUR RESPECTIVE**
3 **FINDINGS?**

4

5 A. Mr. Murray and I use almost exactly the same approaches to developing our
6 respective rate-of-return recommendations. We both rely principally on the DCF
7 methodology, using investment analysts' forecasts of long-term earnings growth
8 for the "g" factor in the DCF formula, and we have both used the CAPM
9 approach to test our DCF results.

10

11 The principal reason for the difference in our results is that Mr. Murray uses a
12 smaller sample of comparable electric companies, specifically, six publicly traded
13 vertically integrated electric utilities. My DCF analysis relied on a sample of 16
14 electric companies that derive over 75 percent of their revenues from regulated
15 operations. My sample may include some utilities that have divested their
16 generation assets and are no longer vertically integrated.

17

18 **Q. DOES IT MAKE SENSE THAT MR. MURRAY'S SAMPLE SHOULD**
19 **YIELD A LOWER RATE OF RETURN THAN YOURS?**

20

21 A. Yes. A vertically integrated utility incurs lower risk than one that must rely on
22 the public markets to secure its power. As we have seen in California and more
23 recently in Maryland, such reliance can lead to very unfavorable results for the
24 utility. A vertically integrated utility with regulated generation rates has a much
25 more stable and, under current conditions, a lower cost source of power than one
26 that must rely on the regional power markets.

1 **Q. SINCE EMPIRE IS VERTICALLY INTEGRATED, DO YOU**
2 **THEREFORE RECOMMEND MR. MURRAY'S RETURN RANGE IN**
3 **LIEU OF YOUR 9.65 PERCENT EQUITY RETURN**
4 **RECOMMENDATION?**

5
6 A. No. I am concerned that Mr. Murray's six utilities may be too small a sample to
7 eliminate company-specific aberrations in the DCF results. On the other hand, I
8 certainly do not recommend that Mr. Murray's analysis be ignored. Rather, I
9 believe that Mr. Murray has described the lower end of the appropriate rate of
10 return to Empire's equity capital, while my recommendation, which reflects some
11 utilities that are not vertically integrated, represents the high end of that range.

12
13 **Q WHAT IS THE CONSEQUENT RANGE OF EQUITY RETURN FOR**
14 **EMPIRE?**

15
16 A. The range of equity return the falls out of my analyses and those of Mr. Murray is
17 between 9.2 percent and 9.65 percent.

18
19 **Q. DOES THIS COMPLETE YOUR REBUTTAL TESTIMONY?**

20
21 A. Yes, it does.

**Empire District Electric Company
Cost of Capital**

A	B	C	D	E
Capital Structure March 31, 2006:				
	Amount Outstanding 000s	Percent of Total	Cost Rate	Weighted Return
1 Long-term Debt	\$ 410,112	51.64%	7.04%	3.64%
3 Common Equity	384,040	48.36%	9.65%	4.67%
4 Short-term Debt		0.00%	5.59%	0.00%
5 Total	\$ 794,152	100.00%		8.30%

Sources:

Capital Structure: Empire's March 31 Form 10Q, page 7
Long-term Debt Cost: Empire's Schedule H.1
Short-term Debt Cost: Response to P.C. Data Request 4013
Equity Cost: Testimony

**Empire District & Proxy Group Electric Companies
Market-Based Capital Structures**

A	B	C	D
	Empire District		VanderWeide Proxy Group
	Amount Outstanding 000s	Percent of Total	Percent of Total
Long-term Debt	\$ 410,112	39.01%	37.71%
2 Preferred Stock			0.82%
3 Common Equity	641,291	60.99%	61.46%
5 Total	\$ 1,051,403	100.00%	100.00%
Market Capitalization			
Shares Outstanding (\$mil)	30.15		
Recent Price	\$ 21.27		
Market Capitalization (\$mil)	\$ 641.29		

Sources:

Empire Debt: Empire's March 31, 2006 Form 10Q, page 7
VanderWeide Capital Structure: VanderWeide Testimony, Table 5, p. 52
Empire Share Outstanding: Value Line Report, EDE, June 30, 2006
Empire Market Value: Yahoo Finance, July 25, 2006