Exhibit No.:

Issue: Rate of Return
Witness: Matthew J. Barnes

Sponsoring Party: MoPSC Staff
Type of Exhibit: Surrebuttal Testimony

Case No.: ER-2008-0093

Date Testimony Prepared: April 25, 2008

MISSOURI PUBLIC SERVICE COMMISSION UTILITY SERVICES DIVISION

SURREBUTTAL TESTIMONY

OF

MATTHEW J. BARNES

THE EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. ER-2008-0093

Jefferson City, Missouri April 2008

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1		SURREBUTTAL TESTIMONY
2		OF
3		MATTHEW J. BARNES
4		THE EMPIRE DISTRICT ELECTRIC COMPANY
5		CASE NO. ER-2008-0093
6	Q.	Please state your name.
7	A.	My name is Matthew J. Barnes.
8	Q.	Are you the same Matthew J. Barnes who has previously filed rebuttal
9	testimony in	this proceeding for the Staff of the Missouri Public Service Commission (Staff)?
10	A.	Yes. I filed rebuttal testimony on April 04, 2008.
11	Q.	In Staff's rebuttal testimony, did you recommend a fair and reasonable rate of
12	return on th	e Missouri jurisdictional electric utility rate base for The Empire District Electric
13	Company (I	Empire or Company)?
14	A.	Yes, I did.
15	Q.	What is the purpose of your surrebuttal testimony?
16	A.	The purpose of my surrebuttal testimony is to respond to the rebuttal
17	testimony of	of Dr. James H. Vander Weide. Dr. Vander Weide sponsored rate-of-return
18	testimony o	n behalf of Empire.
19	EXECUTI	VE SUMMARY
20	Q.	Please summarize your surrebuttal testimony.
21	A.	Dr. Vander Weide addresses issues in his rebuttal testimony ranging from the
22	size of Staf	f's proxy group, the Discounted Cash Flow model (DCF), the consideration of
23	historical g	growth rates, the calculation of projected growth rates, the inputs for the

Capital Asset Pricing Model (CAPM), and an alleged adjustment that should be made to Staff's CAPM because of Empire's size. I will address each of these points. I will also present Staff's corrected rate-of-return recommendation for Empire.

CORRECTIONS

- Q. On page 4, lines 13 through 16, in Dr. Vander Weide's surrebuttal testimony, he says that Staff eliminated Xcel Energy from its proxy group even though that company met all of the Staff's criteria for inclusion in the proxy group. Is Dr. Vander Weide correct?
- A. Yes. At the time Staff was preparing its comparable company criteria in Schedule 12 of the Staff Cost of Service Report (COS Report), it misspelled Xcel Energy when searching for the company in Value Line. Staff made the correction to include Xcel in its proxy group and in the attached revised schedules herein.
- Q. Did Staff's return on equity (ROE) and rate-of-return (ROR) change as a result of making the correction?
- A. Yes. Although the change was relatively immaterial, Staff now recommends a ROE in the range of 9.72 percent to 10.80 percent with a mid-point of 10.26 percent for Empire. Staff now recommends a ROR in the range of 8.38 percent to 8.93 percent with a mid-point of 8.65 percent for Empire. Please refer to the set of updated Revised Schedules attached to this testimony to determine how these numbers were derived.

RESPONSE TO DR. VANDER WEIDE'S REBUTTAL TESTIMONY

- Q. On page 5, lines 7 through 14, in his rebuttal testimony, Dr. Vander Weide presents the following question and answer:
 - Q. Mr. Barnes's criterion that companies must have 70 percent revenue from electric service eliminates some

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companies that are combination electric/gas companies. Is there any reason why combination electric/natural gas companies should be eliminated from the proxy group?

A. No. Since natural gas operations are similar in risk to electric operations, a combination electric/natural gas company is similar in risk to an electric company.

Is the Commission setting rates in this proceeding based on both Empire's electric and natural gas operations?

- A. No. The Commission is being asked to set rates based on Empire's Missouri electrical operations only. That is the reason Staff chose to use 70 percent electric revenues as one criterion to select companies that are reasonably similar in risk to Empire.
- Q. On page 7, lines 13 through 23 of his rebuttal testimony, Dr. Vander Weide criticizes the size of Staff's proxy group compared to his. What is Staff's response?
- A. As presented on Schedule 12 of the COS Report, Staff used eight criteria to select comparable companies that have similar business risk to Empire.
 - Q. What are the eight criteria that Staff selected?
 - A. The following are the eight criteria that Staff selected:
 - 1. Stock Publicly Traded;
 - 2. Information Printed in Value Line;
 - 3. 10-Years of Data Available;
 - 4. Percent of Electric Revenues greater than or equal to 70;
 - 5. No Pending Merger in the last 6 months;
 - 6. No Cut Dividend in the last 10 years;
 - 7. Two Sources for Projected Growth Available with on from Value Line:
 - 8. At Least Investment Grade.
- Q. Of the eight criteria Staff elected to choose comparable companies that have similar business risk to Empire, which one is the most important?

- A. Of the eight criteria Staff elected to choose comparable companies that have similar business risk to Empire, the percent of electric revenues greater than or equal to 70 (Criterion number 4 above) is the most important.
 - Q. Why is this criterion the most important?
- A. This criterion is important because it eliminates utility companies that have less than 70 percent revenue from electric utility operations, which is the business risk I am evaluating for purposes of recommending a fair and reasonable rate of return for Empire.
- Q. Does Dr. Vander Weide provide any evidence or a recommendation that there should be a minimum number of companies in a proxy group?
 - A. No. He does not.
- Q. On page 8, line 16, through page 9, line 4 in his rebuttal testimony, Dr. Vander Weide criticizes Staff for not using the quarterly compounding version of the DCF model as he did. How do you respond?
- A. It is hard to fathom that many investors would employ the precision that Dr. Vander Weide suggests. Value Line does not publish quarterly projected dividends. It provides projected dividends on an annual basis. The dividend yield provided by Value Line in its Ratings and Reports tear sheets is based on the expected dividend for the next year without quarterly compounding. The following definition of "dividend yield" is contained in the *Value Line Investment Survey for Windows: User's Manual*, © 1995 through 2002:

The common dividends declared per share expressed as a percentage of the average annual price of the stock. Dividend yield = common dividends declared per share divided by the average annual price of a stock. The year-ahead estimated dividend yield (shown in the top right-hand corner of the

Value Line page) is the estimated total of cash dividends to be declared over the next 12 months, divided by the recent price of the stock.

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Staff believes that investors make their investment decisions primarily based upon the annual dividend assumption, and for that reason it is appropriate to recommend ROE estimations to the Commission based on that assumption.

Q. On page 9, lines 12 through 23, in his rebuttal testimony, Dr. Vander Weide criticized Staff's use of Value Line to estimate the dividends expected over the next year in order to estimate the dividend yield in Staff's DCF analysis. What is Staff's response?

A. Dr. Vander Weide claims that Staff's approach is not consistent with the assumption that dividends will grow at the same constant rate forever. Actually, Empire is the perfect counter-example to Dr. Vander Weide's argument in this case. In Staff's opinion it is unreasonable to believe that investors expect to receive an annual dividend next year that is higher than Empire's current annual dividend of \$1.28. Empire has paid this same dividend amount since 1993 and has given no indication it intends to change the dividend in the near future. Also, this is most likely investors' expectations as well, which is what rate of return witnesses should be trying to evaluate.

Q. On page 10, lines 7 through 17 in his rebuttal testimony, Dr. Vander Weide disagreed with Staff's consideration of historical growth rates when estimating the growth component of the DCF model. What is Staff's response?

A. It is Staff's opinion that investors would be foolish not to at least consider historical growth rates when making investing decisions. Staff considers all information that is available and makes a judgment to determine a reasonable growth rate for utility companies. As Staff mentioned in the Staff Report, historical growth rates have been volatile

- Q. On page 13, line 13 through page 14, line 2 in Dr. Vander Weide's rebuttal testimony, he criticizes Staff for not explaining how they arrived at 6.70 percent for the high end of the growth rate. Can you explain how Staff arrived at 6.70 percent?
- A. Yes. Staff calculated the high end of the growth rate for its DCF model by averaging the low proxy group average projected growth rate of 5.55 percent and the high proxy group average projected growth rate of 7.83 percent to arrive at 6.68 percent or rounded to 6.70 percent as shown on Schedule 15 in the Staff COS Report. As mentioned previously, Staff has since restated the growth rate due to an error when selecting companies for its proxy group. Staff used the same technique as before to arrive at a new growth rate range of 5.55 percent to 6.63 percent. See Revised Schedule 15 attached to this testimony.
- Q. On page 17, lines 3 through 18 of Dr. Vander Weide's rebuttal testimony he discusses risk premium estimates using geometric means as compared to arithmetic means. Do you have a simple example to illustrate why Staff does not believe investors use arithmetic means when determining the amount of risk premium they will require on a given stock or a portfolio of stocks?
- A. Yes. Suppose that an investor makes a \$1 stock investment over a three-year period. If an investor pays \$1 for a stock in year 1 and in year 2 the stock increases to \$1.50, then the investor would have a 50 percent growth rate. In year three the price of the stock decreases by 50 percent to \$.75. If an investor performed a simple arithmetic average of

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these two returns, then they would think that they received 0 percent [(50 percent + -50 percent)/2] growth in the investment over the three-year period. However, in reality the investor actually had a 25 percent decline in the investment over this three-year period. This is why using the arithmetic mean as advocated by Dr. Vander Weide is questionable.

- On page 18, line 19 through page 19, line 2 in his rebuttal testimony, Q. Dr. Vander Weide criticizes Staff for not making an upward adjustment to its CAPM because the comparable group's beta is below 1.00. What is Staff's response?
- Beta is the measure of the relative volatility of the individual stock price as it A. relates to the market. If a company's beta is less than one, then it is considered to have less market risk than the overall market and if it is greater than one, then it is considered to have more market risk than the overall market. Staff notes that beta only measures the amount of risk caused by the market, not company-specific risks. Staff's comparable group and Empire's beta are exactly the same (.85). This implies that Staff's comparable group's estimated cost of common equity is a good proxy for the subject company.
- Q. On page 19, line 14 through page 20, line 3 in his rebuttal testimony, Dr. Vander Weide claims an adjustment should be made to Staff's CAPM because of Empire's small size. What is Staff's response?
- A. Dr. Vander Weide uses an Ibbotson Associates study that was based on all of the stocks in the New York Stock Exchange, the American Stock Exchange and the NASDAO National Market, not Empire or utility specific.

SUMMARY AND CONCLUSIONS

Q. Please summarize the conclusion of your surrebuttal testimony. Surrebuttal Testimony of Matthew J. Barnes

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- A. My revised cost of common equity of 9.72 percent to 10.80 percent with a mid-point of 10.26 percent would produce a fair and reasonable rate of return of 8.38 percent to 8.93 percent with a mid-point of 8.65 percent for Empire.
 - Q. Does this conclude your surrebuttal testimony?
 - A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of The Emp Company of Joplin, Misson Authority to File Tariffs I Electric Service Provided to Missouri Service Area of the	uri's App ncreasing to Custon	olication for g Rates for mers in the	·)	Case No. El	R-2008-0093
			A (D)(D)		•
	AFFIDA	VII OF MA	ATTHEW J. E	BARNES	
STATE OF MISSOURI)	v			
COUNTY OF COLE)	SS.			
Matthew J. Barnes, of lawf of the foregoing Surrebuttal to be presented in the above given by him; that he has matters are true and correct	Testimo e case; th knowled	ony in quest nat the ansv ge of the r	ion and answe vers in the for natters set for	er form, consistegoing Surreborth in such an	ting of <u>8</u> pages uttal Testimony were
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• ,			Matthe	w. Barnes	
				•	
Subscribed and sworn to bef	ore me tl	his <u>twa</u>	ty-forth	day	of April, 2008.
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NIKKI SENN Notary Public - Notary Seal State of Missouri		4	Ukhr Notar	Senn y Public	<u></u>
Commissioned for Osage County My Commission Expires: October 01, 201 Commission Number: 07287016	ı				

Criteria for Selecting Comparable Electric Utility Companies

(1) (10) (2) (3) (4) (5) (6) (7) (8) (9) No Two Pending No At Least Comparable Sources for Cut Dividend Stock Information 10-Years % Electric Merger Projected Growth Investment Company ValueLine Publicly Printed in of Data Revenues in the Available with One Grade Credit Met All Electric Utility Companies(Ticker) Traded ValueLine Available ≥ 70% last 6 months last 10 years from Value Line Rating Criteria ALLETE(ALE) Yes Yes No Allegheny Energy(AYE) Yes Yes Alliant Energy(LNT) Yes Yes Yes Yes Yes Yes Yes Yes Yes Ameren Corp.(AEE) Yes Yes Yes Yes Yes Yes Yes Yes Yes American Electric Power(AEP) Yes Yes Yes Yes Yes Yes Yes Yes Yes Aquila, Inc.(ILA) Yes Yes Yes No Avista Corp.(AVA) Yes No Yes Yes Black Hills(BKH) Yes Yes Yes No CenterPoint Energy(CNP) Yes Yes No Yes Yes Yes Yes No Central Vermont Public Service(CV) Yes Yes Yes CH Energy Group(CHG) Yes Yes Cleco Corp.(CNL) Yes Yes Yes Yes Yes Yes CMS Energy Corp.(CMS) Yes Yes Yes No Yes No Consolidated Edison(ED) Yes Yes Yes No Yes No Constellation Energy(CEG) Yes Yes Dominion Resources (D) DPL Inc.(DPL) Yes Yes Yes Yes Yes Yes Yes Yes DTE Energy(DTE) Yes Yes Yes No Duke Energy(DUK) Yes Yes No Edison International(EIX) Yes Yes Yes No Yes Yes El Paso Electric(EE) Yes Yes Yes Yes No Energy East Corp.(EAS) Yes Yes Yes Nο Entergy Corp.(ETR) Yes Yes Yes Yes Yes Evergreen Energy Inc.(EEE) Yes Yes No Exelon Corp.(EXC) No FirstEnergy Corp.(FE) Yes Yes Yes Yes Yes Yes Yes Yes Yes Florida Public Utilities(FPU) Yes Yes No FPL Group(FPL) Yes Yes Yes Yes Yes Yes Yes Great Plains Energy (GXP) Hawaiian Electric(HE) Yes Yes Yes Yes Yes Yes IDACORP, Inc.(IDA) Yes Yes Yes Yes Yes Yes Yes Yes Yes Integrys Energy(TEG) Yes Yes Yes No Maine & Maritimes Corp.(MAM) No Yes Yes MDU Resources(MDU) Yes Yes No Yes MGE Energy(MGEE) Yes Yes Yes No NiSource Inc.(NI) Yes Yes Yes No Northeast Utilities(NU) Yes Yes No Yes Yes Yes NSTAR(NST) Yes Yes Yes Yes Yes Yes OGE Energy(OGE) Yes No Otter Tail Corp.(OTTR) Yes Yes Yes No Pepco Holdings(POM) Yes Yes No PG&E Corp.(PCG) Pinnacle West Capital(PNW) Yes Yes Yes Yes PNM Resources(PNM) Yes Yes Yes Yes Yes Portland General(POR)
PPL Corp.(PPL) Yes Yes No Yes Yes Yes Progress Energy(PGN) Yes Yes Yes Yes Yes Public Service Enterprise(PEG) Puget Energy Inc.(PSD) Yes Yes Yes No SCANA Corp.(SCG) Yes Yes Yes No Sempra Energy(SRE) Yes No Yes Yes Sierra Pacific Resources(SRP) Yes Yes Yes Yes Yes No Southern Company(SO) Yes Yes Yes Yes TECO Energy(TE) Yes Yes Yes No UIL Holdings(UIL) Yes Yes Yes Yes Yes Yes N.A. Yes Yes Yes No UniSource Energy(UNS) Yes Yes Yes UNITIL Corp.(UTL) Yes Yes No Vectren Corp.(VVC) Yes Yes No Westar Energy(WR) Yes Yes Yes Yes Yes Yes Yes Xcel Energy (XEL) Yes Yes

Sources: Columns 1, 2 and 5 = Standard & Poor's RatingsDirect.

 $Columns\ 3, 4\ and\ 6 = The\ Value\ Line\ Investment\ Survey:\ Ratings\ \&\ Reports,\ November\ 30,\ December\ 28,\ 2007\ and\ February\ 08,\ 2008.$

Column 6 = I/B/E/S Inc.'s Institutional Brokers Estimate System, January 17, 2008.

Notes: N.A. = Not available.

Comparable Electrical Utility Companies for The Empire District Electric Company

	Ticker	
Number	Symbol	Company Name
1	LNT	Alliant Energy
2	AEE	Ameren Corp.
3	PNW	American Electric Power
4	CNL	Cleco Corp.
5	DPL	DPL Inc.
6	ETR	Entergy Corp.
7	FE	FirstEnergy Corp.
8	FPL	FPL Group
9	HE	Hawaiian Electric
10	IDA	IDACORP, Inc.
11	NST	NSTAR
12	PNW	Pinnacle West Capital
13	PNM	PNM Resources
14	PGN	Progress Energy
15	SO	Southern Company
16	WR	Westar Energy
17	XEL	Xcel Energy

Ten-Year Dividends Per Share, Earnings Per Share & Book Value Per Share Growth Rates for the Comparable Electric Utility Companies and The Empire District Electric Company

 10-Vaar	Annual	Compound	Growth Rate	

	IV-I cal	Annual Compound Growt	II Itale	
				Average of 10-Year Annual Compound
Company Name	DPS	EPS	BVPS	Growth Rates
Alliant Energy	-6.00%	-1.00%	1.00%	-2.00%
Ameren Corp.	0.50%	0.00%	3.00%	1.17%
American Electric Power	-5.00%	-0.50%	-0.50%	-2.00%
Cleco Corp.	2.00%	3.00%	5.50%	3.50%
DPL Inc.	1.50%	1.50%	0.50%	1.17%
Entergy Corp.	1.50%	8.50%	3.00%	4.33%
FirstEnergy Corp.	2.00%	4.50%	5.50%	4.00%
FPL Group	4.50%	5.50%	6.50%	5.50%
Hawaiian Electric	0.50%	0.50%	1.50%	0.83%
IDACORP, Inc.	-4.50%	0.00%	3.00%	-0.50%
NSTAR	2.50%	4.50%	3.50%	3.50%
Pinnacle West Capital	7.50%	2.00%	4.50%	4.67%
PNM Resources	0.00%	4.00%	6.00%	3.33%
Progress Energy	3.00%	1.00%	6.50%	3.50%
Southern Company	2.00%	2.50%	1.00%	1.83%
Westar Energy	-8.00%	-5.00%	-4.00%	-5.67%
Xcel Energy	-4.50%	-3.50%	-1.00%	-3.00%
Average	-0.03%	1.62%	2.68%	1.42%
Standard Deviation	3.98%	3.04%	2.81%	2.91%

Source: The Value Line Investment Survey: Ratings & Reports, November 30, December 28, 2007 and February 08, 2008.

Five-Year Dividends Per Share, Earnings Per Share & Book Value Per Share Growth Rates for the Comparable Electric Utility Companies and The Empire District Electric Company

---- 5-Year Annual Compound Growth Rates ----

				Average of 5-Year Annual Compound
Company Name	DPS	EPS	BVPS	Growth Rates
Alliant Energy	-11.50%	-3.00%	-2.50%	-5.67%
Ameren Corp.	0.00%	-2.00%	5.50%	1.17%
American Electric Power	-9.50%	3.00%	-2.50%	-3.00%
Cleco Corp.	1.00%	0.00%	5.50%	2.17%
DPL Inc.	0.50%	-3.50%	0.50%	-0.83%
Entergy Corp.	11.00%	10.50%	4.00%	8.50%
FirstEnergy Corp.	4.00%	3.50%	4.50%	4.00%
FPL Group	5.50%	4.50%	6.50%	5.50%
Hawaiian Electric	0.00%	-1.00%	2.00%	0.33%
IDACORP, Inc.	-8.50%	-8.50%	2.50%	-4.83%
NSTAR	3.00%	3.50%	2.50%	3.00%
Pinnacle West Capital	6.00%	-5.00%	4.00%	1.67%
PNM Resources	7.50%	-2.50%	4.50%	3.17%
Progress Energy	2.50%	-0.50%	5.00%	2.33%
Southern Company	2.00%	3.00%	1.00%	2.00%
Westar Energy	-11.00%	21.00%	-9.00%	0.33%
Xcel Energy	-10.50%	-6.50%	-4.50%	-7.17%
Average	0.16%	1.44%	2.13%	0.75%
Standard Deviation	6.59%	6.67%	3.87%	3.51%

Source: The Value Line Investment Survey: Ratings & Reports, November 30, December 28, 2007 and February 08, 2008.

Average of Ten- and Five-Year Dividends Per Share, Earnings Per Share, and Book Value Per Share for the Comparable Electric Utility Companies and The Empire District Electric Company

	10-Year	5-Year	Average of
	Average	Average	5-Year &
	DPS, EPS &	DPS, EPS &	10-Year
Company Name	BVPS	BVPS	Averages
Alliant Energy	-2.00%	-5.67%	-3.83%
Ameren Corp.	1.17%	1.17%	1.17%
American Electric Power	-2.00%	-3.00%	-2.50%
Cleco Corp.	3.50%	2.17%	2.83%
DPL Inc.	1.17%	-0.83%	0.17%
Entergy Corp.	4.33%	8.50%	6.42%
FirstEnergy Corp.	4.00%	4.00%	4.00%
FPL Group	5.50%	5.50%	5.50%
Hawaiian Electric	0.83%	0.33%	0.58%
IDACORP, Inc.	-0.50%	-4.83%	-2.67%
NSTAR	3.50%	3.00%	3.25%
Pinnacle West Capital	4.67%	1.67%	3.17%
PNM Resources	3.33%	3.17%	3.25%
Progress Energy	3.50%	2.33%	2.92%
Southern Company	1.83%	2.00%	1.92%
Westar Energy	-5.67%	0.33%	-2.67%
Xcel Energy	-3.00%	-7.17%	-5.08%
Average	1.42%	0.75%	1.08%

Historical and Projected Growth Rates for the Comparable Electric Utility Companies and The Empire District Electric Company

	(1)	(2)	(3)	(4)	(5)	(6)
		Projected				
	Historical	5-Year	Projected	Projected		Average of
	Growth Rate	EPS Growth	5-Year	3-5 Year	Average	Historical
	(DPS, EPS and	IBES	EPS Growth	EPS Growth	Projected	& Projected
Company Name	BVPS)	(Mean)	S&P	Value Line	Growth	Growth
Alliant Energy	-3.83%	6.00%	6.00%	5.50%	5.83%	1.00%
Ameren Corp.	1.17%	7.30%	6.00%	3.00%	5.43%	3.30%
American Electric Power	-2.50%	6.02%	6.00%	6.50%	6.17%	1.84%
Cleco Corp.	2.83%	14.00%	14.00%	6.50%	11.50%	7.17%
DPL Inc.	0.17%	8.88%	9.00%	10.50%	9.46%	4.81%
Entergy Corp.	6.42%	10.60%	11.00%	9.50%	10.37%	8.39%
FirstEnergy Corp.	4.00%	11.00%	9.00%	9.00%	9.67%	6.83%
FPL Group	5.50%	9.90%	10.00%	11.00%	10.30%	7.90%
Hawaiian Electric	0.58%	8.53%	9.00%	1.50%	6.34%	3.46%
IDACORP, Inc.	-2.67%	6.00%	6.00%	2.00%	4.67%	1.00%
NSTAR	3.25%	6.50%	7.00%	8.50%	7.33%	5.29%
Pinnacle West Capital	3.17%	5.73%	6.00%	1.50%	4.41%	3.79%
PNM Resources	3.25%	9.13%	9.00%	2.50%	6.88%	5.06%
Progress Energy	2.92%	5.04%	5.00%	3.50%	4.51%	3.72%
Southern Company	1.92%	5.03%	5.00%	3.00%	4.34%	3.13%
Westar Energy	-2.67%	5.58%	6.00%	4.50%	5.36%	1.35%
Xcel Energy	-5.08%	6.00%	6.00%	5.50%	5.83%	0.38%
Average	1.08%	7.72%	7.65%	5.53%	6.97%	4.02%

Proposed Range of Growth for Comparables: 5.55%-6.63%

Column 5 = [(Column 2 + Column 3 + Column 4) / 3]

Column 6 = [(Column 1 + Column 5)/2]

Sources: Column 1 = Average of 10-Year and 5-Year Annual Compound Growth Rates from Schedule 13-3.

Column 2 = I/B/E/S Inc.'s Institutional Brokers Estimate System, January 17, 2008.

Column 3 = Standard & Poor's Earnings Guide, January 2008.

Column 4 = The Value Line Investment Survey: Ratings and Reports, November 30, December 28, 2007 and February 8, 2008.

^{*}IBES and S&P reported a growth rate of 34 percent for Empire. This is an incorrect number and Staff was informed by IBES that the number is being corrected, therefore; Staff could not calculate a company specific return on equity.

Average High / Low Stock Price for September 2007 through December 2007 for the Comparable Electric Utility Companies and The Empire District Electric Company

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Septem	ber 2007	Octobe	er 2007	Noveml	per 2007	Decemb	per 2007	Average
		_		_		_		_	High/Low
	High	Low	High	Low	High	Low	High	Low	Stock
	Stock	Price							
Company Name	Price	(09/07 - 12/07)							
Alliant Energy	\$39.030	\$36.610	\$40.570	\$37.320	\$42.000	\$38.880	\$43.410	\$40.690	\$39.814
Ameren Corp.	\$53.890	\$50.250	\$54.400	\$51.810	\$54.200	\$51.960	\$54.740	\$52.840	\$53.011
American Electric Power	\$46.970	\$44.060	\$48.700	\$45.050	\$48.230	\$45.360	\$49.490	\$46.320	\$46.773
Cleco Corp.	\$26.030	\$22.410	\$26.760	\$24.500	\$29.840	\$25.090	\$28.760	\$24.600	\$25.999
DPL Inc.	\$26.820	\$25.980	\$29.040	\$25.710	\$30.480	\$28.700	\$31.000	\$29.200	\$28.366
Entergy Corp.	\$111.950	\$102.120	\$120.890	\$108.210	\$125.000	\$114.040	\$123.390	\$114.740	\$115.043
FirstEnergy Corp.	\$66.180	\$61.080	\$69.920	\$63.390	\$69.760	\$66.310	\$74.980	\$68.100	\$67.465
FPL Group	\$63.490	\$58.230	\$68.480	\$60.260	\$70.140	\$65.530	\$72.770	\$67.520	\$65.803
Hawaiian Electric	\$21.870	\$20.620	\$23.200	\$21.680	\$23.490	\$20.920	\$23.950	\$22.600	\$22.291
IDACORP, Inc.	\$33.900	\$31.200	\$36.450	\$32.360	\$35.740	\$33.000	\$36.720	\$33.680	\$34.131
NSTAR	\$35.050	\$32.450	\$35.440	\$33.450	\$35.620	\$33.590	\$37.000	\$34.860	\$34.683
Pinnacle West Capital	\$40.700	\$39.480	\$42.620	\$39.500	\$43.640	\$39.040	\$44.500	\$42.000	\$41.435
PNM Resources	\$23.620	\$21.190	\$25.210	\$23.050	\$25.060	\$21.710	\$23.950	\$21.410	\$23.150
Progress Energy	\$48.160	\$44.960	\$48.000	\$44.750	\$49.060	\$46.310	\$50.250	\$48.250	\$47.468
Southern Company	\$37.480	\$35.040	\$37.230	\$35.160	\$38.750	\$35.150	\$39.350	\$37.360	\$36.940
Westar Energy	\$25.430	\$23.500	\$26.750	\$24.290	\$26.760	\$24.770	\$26.830	\$25.280	\$25.451
Xcel Energy	\$22.410	\$20.300	\$22.620	\$20.700	\$23.130	\$21.350	\$23.500	\$22.490	\$22.063

Notes:

 $Column \ 9 = [\ (\ Column \ 1 + Column \ 2 + Column \ 3 + Column \ 4 + Column \ 5 + Column \ 6 + Column \ 7 + Column \ 8 \) \ / \ 8 \].$

Sources: S & P Stock Guides: October 2007, November 2007, December 2007 and January 2008.

Discounted Cash Flow (DCF) Estimated Costs of Common Equity for the Comparable Electric Utility Companies and The Empire District Electric Company

	(1)	(2)	(3)	(4)	(5)
		Average		Average of	Estimated
	Expected	High/Low	Projected	Historical	Cost of
	Annual	Stock	Dividend	& Projected	Common
Company Name	Dividend	Price	Yield	Growth	Equity
Alliant Energy	\$1.40	\$39.814	3.52%	1.00%	4.52%
Ameren Corp.	\$2.54	\$53.011	4.79%	3.30%	8.09%
American Electric Power	\$1.67	\$46.773	3.57%	1.84%	5.41%
Cleco Corp.	\$0.90	\$25.999	3.46%	7.17%	10.63%
DPL Inc.	\$1.10	\$28.366	3.88%	4.81%	8.69%
Entergy Corp.	\$3.10	\$115.043	2.69%	8.39%	11.09%
FirstEnergy Corp.	\$2.15	\$67.465	3.19%	6.83%	10.02%
FPL Group	\$1.78	\$65.803	2.71%	7.90%	10.61%
Hawaiian Electric	\$1.24	\$22.291	5.56%	3.46%	9.03%
IDACORP, Inc.	\$1.20	\$34.131	3.52%	1.00%	4.52%
NSTAR	\$1.43	\$34.683	4.12%	5.29%	9.41%
Pinnacle West Capital	\$2.12	\$41.435	5.12%	3.79%	8.90%
PNM Resources	\$0.97	\$23.150	4.19%	5.06%	9.25%
Progress Energy	\$2.47	\$47.468	5.20%	3.72%	8.92%
Southern Company	\$1.66	\$36.940	4.49%	3.13%	7.62%
Westar Energy	\$1.16	\$25.451	4.56%	1.35%	5.90%
Xcel Energy	\$0.95	\$22.063	4.31%	0.38%	4.68%

Proposed Dividend Yield: 4.05%

4.02%

8.08%

4.05%

Proposed Range of Growth: 5.55% - 6.63%

Estimated Proxy Cost of Common Equity: 9.60%-10.68%

Notes: Column 1 = Estimated Dividends Declared per share represents the projected dividend for 2008.

Column 3 = (Column 1 / Column 2).

Column 5 = (Column 3 + Column 4).

Sources: Column 1 = The Value Line Investment Survey: Ratings & Reports, November 30, December 28, 2007 and February 08, 20

Column 2 = Schedule 15.

Average

Column 4 = Schedule 14.

^{*}IBES and S&P reported a growth rate of 34 percent for Empire. This is an incorrect number and Staff was informed by IBES that the number is being corrected, therefore; Staff could not caclulate a company specific return on equity.

Capital Asset Pricing Model (CAPM) Costs of Common Equity Estimates Based on Historical Return Differences Between Common Stocks and Long-Term U.S. Treasuries for the Comparable Electric Utility Companies and The Empire District Electric Company

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
			Arithmetic	Geometric	Geometric	Arithmetic	Geometric	Geometric
			Average	Average	Average	CAPM	CAPM	CAPM
			Market	Market	Market	Cost of	Cost of	Cost of
	Risk	Company's	Risk	Risk	Risk	Common	Common	Common
	Free	Value Line	Premium	Premium	Premium	Equity	Equity	Equity
Company Name	Rate	Beta	(1926-2006)	(1926-2006)	(1996-2006)	(1926-2006)	(1926-2006)	(1996-2006)
Alliant Energy	4.33%	0.80	6.50%	5.00%	0.59%	9.53%	8.33%	4.80%
Ameren Corp.	4.33%	0.80	6.50%	5.00%	0.59%	9.53%	8.33%	4.80%
American Electric Power	4.33%	0.95	6.50%	5.00%	0.59%	10.51%	9.08%	4.89%
Cleco Corp.	4.33%	1.15	6.50%	5.00%	0.59%	11.81%	10.08%	5.01%
DPL Inc.	4.33%	0.85	6.50%	5.00%	0.59%	9.86%	8.58%	4.83%
Entergy Corp.	4.33%	0.85	6.50%	5.00%	0.59%	9.86%	8.58%	4.83%
FirstEnergy Corp.	4.33%	0.85	6.50%	5.00%	0.59%	9.86%	8.58%	4.83%
FPL Group	4.33%	0.75	6.50%	5.00%	0.59%	9.21%	8.08%	4.77%
Hawaiian Electric	4.33%	0.75	6.50%	5.00%	0.59%	9.21%	8.08%	4.77%
IDACORP, Inc.	4.33%	0.95	6.50%	5.00%	0.59%	10.51%	9.08%	4.89%
NSTAR	4.33%	0.75	6.50%	5.00%	0.59%	9.21%	8.08%	4.77%
Pinnacle West Capital	4.33%	0.80	6.50%	5.00%	0.59%	9.53%	8.33%	4.80%
PNM Resources	4.33%	0.90	6.50%	5.00%	0.59%	10.18%	8.83%	4.86%
Progress Energy	4.33%	0.85	6.50%	5.00%	0.59%	9.86%	8.58%	4.83%
Southern Company	4.33%	0.70	6.50%	5.00%	0.59%	8.88%	7.83%	4.74%
Westar Energy	4.33%	0.85	6.50%	5.00%	0.59%	9.86%	8.58%	4.83%
Xcel Energy	4.33%	0.80	6.50%	5.00%	5.90%	9.53%	8.33%	9.05%
Average		0.84				9.82%	8.55%	5.08%

Sources:

- Column 1 = The appropriate yield is equal to the average 30-year U.S. Treasury Bond yield for January 2008 which was obtained from the St. Louis Federal Reserve website at http://research.stlouisfed.org/fred2/series/GS30/22.
- Column 2 = Beta is a measure of the movement and relative risk of an individual stock to the market as a whole as reported by the Value Line Investment Survey: Ratings & Reports, November 30, December 28, 2007 and February 08, 2008.
- Column 3 = The Market Risk Premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk free investment. The appropriate Market Risk Premium for the period 1926 2006 was determined to be 6.50% based on an arithmetic average as calculated in Ibbotson Associates, Inc.'s Stocks, Bonds, Bills, and Inflation: 2007 Yearbook.
- Column 4 = The Market Risk Premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk free investment. The appropriate Market Risk Premium for the period 1926 2006 was determined to be 5.00% based on a geometric average as calculated in Ibbotson Associates, Inc.'s Stocks, Bonds, Bills, and Inflation: 2007 Yearbook.
- Column 5 = The Market Risk Premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk free investment. The appropriate Market Risk Premium for the period 1997 2006 was determined to be .59% as calculated in Ibbotson Associates, Inc.'s Stocks, Bonds, Bills, and Inflation: 2007 Yearbook.

Column 6 = (Column 1 + (Column 2 * Column 3)).

Column 7 = (Column 1 + (Column 2 * Column 4)).

Column 8 = (Column 1 + (Column 2 * Column 5)).

Selected Financial Ratios for the Comparable Electric Utility Companies and The Empire District Electric Company

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
			Funds	Funds			2008	
		2007	From	From		2007	Projected	
	2007	Long-Term	Operations	Operations	Market-	Return on	Return on	
	Common Equity	Debt	Interest	to Total	to-Book	Common	Common	Bond
Company Name	Ratio	Ratio	Coverage	Debt	Value	Equity	Equity	Rating
Alliant Energy	56.00%	38.00%	4.70 x	31.0%	1.68 x	12.00%	11.00%	BBB+
Ameren Corp.	54.00%	44.50%	4.00 x	17.5%	1.49 x	10.00%	10.00%	BBB-
American Electric Power	42.00%	58.00%	3.50 x	20.0%	1.86 x	11.00%	12.00%	BBB
Cleco Corp.	54.50%	45.50%	3.00 x	15.0%	1.58 x	8.00%	9.00%	BBB
DPL Inc.	35.50%	63.50%	3.50 x	19.00%	4.06 x	26.50%	26.00%	BBB
Entergy Corp.	43.00%	55.00%	4.00 x	25.00%	2.82 x	14.00%	14.50%	BBB
FirstEnergy Corp.	49.50%	50.50%	4.00 x	18.00%	2.51 x	15.00%	14.00%	BBB
FPL Group	51.00%	49.00%	4.50 x	22.30%	2.47 x	12.90%	13.00%	A
Hawaiian Electric	46.00%	53.00%	3.50 x	16.00%	1.61 x	6.50%	9.00%	BBB
IDACORP, Inc.	52.50%	47.50%	1.80 x	14.10%	1.23 x	7.50%	7.50%	BBB
NSTAR	40.50%	58.50%	4.50 x	26.00%	2.10 x	13.50%	14.00%	A+
Pinnacle West Capital	51.50%	48.50%	4.00 x	17.80%	1.15 x	8.50%	7.00%	BBB-
PNM Resources	49.00%	50.50%	2.20 x	13.40%	0.88 x	5.50%	7.00%	BBB-
Progress Energy	48.00%	51.50%	3.60 x	15.30%	1.41 x	9.00%	9.00%	BBB+
Southern Company	46.00%	51.50%	5.50 x	22.60%	2.37 x	13.50%	13.00%	A
Westar Energy	50.50%	49.00%	3.60 x	16.00%	1.26 x	8.50%	9.00%	BBB-
Xcel Energy	47.50%	51.50%	3.60 x	18.80%	1.37 x	9.00%	10.00%	BBB+
Average	48.06%	50.91%	3.74 x	19.3%	1.87 x	11.23%	11.47%	BBB

Sources:

The Value Line Investment Survey Ratings & Reports, November 30, December 28, 2007 and February 08, 2008: for columns (1), (2), (6) and (7). Standard & Poor's RatingsDirect for columns (3), (4).

AUS Utility Reports, February 2008 for column (5).

Weighted Cost of Capital as of December 31, 2007 for The Empire District Electric Company

Weighted Cost of Capital Using

Capital Component			Common Equity Return of:			
	Percentage of Capital	Embedded Cost	9.72%	10.26%	10.80%	
Common Stock Equity	50.82%		4.94%	5.21%	5.49%	
Trust Preferred Stock	4.58%	8.88%	0.41%	0.41%	0.41%	
Long-Term Debt	44.61%	6.80%	3.03%	3.03%	3.03%	
Short-Term Debt	0.00%					
Total	100.00%		8.38%	8.65%	8.93%	

Notes:

See Schedule 9 for the Capital Structure Ratios.

Embedded Cost of Long-Term Debt and Embedded Cost of Preferred Stock Taken from Response to DR 0112.