

*Exhibit No.:*  
*Issues:* *Rate of Return*  
*Witness:* *David Murray*  
*Sponsoring Party:* *MoPSC Staff*  
*Type of Exhibit:* *Surrebuttal Testimony*  
*Case No.:* *ER-2009-0089*  
*Date Testimony Prepared:* *April 7, 2009*

**MISSOURI PUBLIC SERVICE COMMISSION**

**UTILITY SERVICES DIVISION**

**SURREBUTTAL TESTIMONY**

**OF**

**DAVID MURRAY**

**Great Plains Energy, Incorporated  
KANSAS CITY POWER & LIGHT COMPANY**

**CASE NO. ER-2009-0089**

*Jefferson City, Missouri  
April 2009*

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**DAVID MURRAY**  
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**CASE NO. ER-2009-0089**

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**SURREBUTTAL TESTIMONY**  
**OF**  
**DAVID MURRAY**  
**Great Plains Energy, Incorporated**  
**KANSAS CITY POWER & LIGHT COMPANY**  
**CASE NO. ER-2009-0089**

Q. Please state your name.

A. My name is David Murray.

Q. Are you the same David Murray who filed direct and rebuttal testimony in this proceeding for the Staff of the Missouri Public Service Commission (“Staff”)?

A. Yes, I am.

Q. In your direct testimony, did you recommend a fair and reasonable rate of return on the Missouri jurisdictional electric utility rate base for Kansas City Power & Light Company (“KCPL” or “the Company”)?

A. Yes, I did.

Q. What is the purpose of your surrebuttal testimony?

A. The purpose of my surrebuttal testimony is to respond to the rebuttal testimonies of KCPL’s witnesses Dr. Samuel C. Hadaway and Michael W. Cline. Dr. Hadaway sponsored rate-of-return (ROR) direct and rebuttal testimony in this case on cost of common equity issues. Mr. Cline sponsored rebuttal testimony addressing capital market and capital structure issues.

1 **EXECUTIVE SUMMARY**

2 Q. Please summarize the major issues you will address in your surrebuttal  
3 testimony.

4 A. I will respond to Dr. Hadaway's rebuttal testimony attempting to discredit my  
5 assumption that investors' expected perpetual growth rates are not based on demand growth  
6 for electricity. I will address this by discussing the fact that the very analysts' that provide  
7 higher 5-year earnings forecasts relied on by Dr. Hadaway also use much lower perpetual  
8 growth rates when performing their own discounted cash flow analysis. I will also show that  
9 even in today's capital market environment, equity analysts are using costs of common equity  
10 of 8 percent and 9 percent when providing valuation estimates for Great Plains Energy  
11 ("GPE"). All of this information confirms that even if the cost of common equity has  
12 increased, it is still below the average of commission allowed ROEs as shown in the recent  
13 first quarter 2009 Regulatory Research Associate's publication of average electric allowed  
14 ROEs (see Schedule 1).

15 I believe the current capital and economic environment renders cost of equity  
16 estimates based on historical relationships between common equity returns and bond yields  
17 less reliable. Consequently, I did not place any weight on my CAPM analysis. I also believe  
18 this is justification for not giving much weight to risk premium analyses that rely on strained  
19 credit markets. While this information provides insight as to the dysfunction of markets, it  
20 also shows how certain past relationships are not holding true.

21 I will also address why I believe it is appropriate to rely on the common equity ratio as  
22 reported by GPE. I could not find any information that GPE reports to its investors through

1 its “Notes to Consolidated Financial Statements” that would cause investors to make the  
2 proposed adjustment.

3 **RESPONSE TO DR. HADAWAYS’ REBUTTAL TESTIMONY**

4 Q. What is your overall reaction to Dr. Hadaway’s rebuttal testimony in this case?

5 A. Dr. Hadaway uses the recent contraction in the capital and economic market to  
6 justify a revised, higher ROE recommendation of 11.55 percent compared to his original ROE  
7 recommendation of 10.75 percent, which is clearly a changed position. Consequently, Dr.  
8 Hadaway’s revised recommendation results in KCPL requesting an approximate \$8.6 million  
9 additional annual increase in rates due to his belief that the cost of common equity is now  
10 around 11.55 percent. Staff does not have an issue with Dr. Hadaway’s decision to update his  
11 cost of common equity study because of significant changes in the economic and capital  
12 market. However, because Dr. Hadaway’s initial cost of common equity recommendation  
13 was based on unrealistic assumptions, an updated cost of common equity using these same  
14 unrealistic assumptions is only going to cause his cost of common equity estimate to continue  
15 to be significantly above the cost of common equity implied in electric utility stock prices.  
16 As Staff will discuss later in its testimony, because Dr. Hadaway used the same  
17 methodologies that he used in his direct testimony, the spread between his original and  
18 revised recommendation can be added to certain financial advisors’ estimated cost of common  
19 equity of around 9.5 percent used for purposes of valuing GPE’s purchase  
20 of the GMO properties to test the reasonableness of the various estimated costs of common  
21 equity in this case. This is especially insightful since these other cost of equity estimates were

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1 not provided for purposes of sponsoring rate of return testimony to try to justify a higher  
2 requested allowed ROE.

3         Although Dr. Hadaway recognized that there has been dysfunction in the credit  
4 markets recently, he chose to rely on these higher debt yields to justify his 11.55 percent  
5 requested ROE in this case. Dr. Hadaway uses these higher debt yields to support a higher  
6 cost of common equity, yet he dismisses lower risk-free rates because they are the result  
7 of government intervention to combat the higher yields realized as a result of the financial  
8 crisis. If Dr. Hadaway understands that the government is taking extreme actions to combat  
9 the tightness that occurred in the financial markets, it is surprising that he would embrace  
10 these higher yields to support a larger rate increase in this case. While Staff understood that  
11 its CAPM analysis using much lower risk-free rates with lower risk premium estimates  
12 provided biased results on the low side, Staff also understood that performing a DCF analysis  
13 that blindly accepts high equity analysts' growth rates as being sustainable would provide  
14 biased results on the high side. Staff attempted to address this issue by performing  
15 a multiple-stage DCF analysis in this case. As a result, Staff performed research to determine  
16 a reasonable perpetual growth rate for purposes of the final growth stage of the model.  
17 Staff could not find any information used in the investment field that would support perpetual  
18 growth rates anywhere near the level used by Dr. Hadaway. Staff found that most generic  
19 perpetual growth rates used for purposes of evaluating investments in stocks in the regulated  
20 electric utility industry were primarily in the 1 to 3 percent range.

21         Because these are the growth rates used by those in the investment field, these are the  
22 growth rates that drive the level of electric utility stock prices. Because rate of return  
23 witnesses are attempting to determine investors' market required rates of return implied in

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David Murray

1 stock prices, this information is quite relevant to the practice of estimating the cost of  
2 common equity in utility rate case proceedings.

3 Q. On page 9, line 10 through page 10, line 12 of his rebuttal testimony,  
4 Dr. Hadaway provides an explanation as to why the CAPM should not be given any weight to  
5 estimate the cost of common equity because it currently understates the cost of equity.  
6 Did you give the CAPM any weight in your final recommendation in this case?

7 A. No. In fact, it was not until I completed my constant-growth DCF analysis  
8 and CAPM analysis that I decided the current capital and economic environment required  
9 the use of a different approach to determine a reliable estimate of the cost of common equity.  
10 I certainly do not believe a risk premium analysis using higher debt costs for lower quality  
11 debt should be used to justify a higher cost of equity in this proceeding, especially considering  
12 that much of the government action taken to date has been in attempt to gain some stability in  
13 the credit markets. If Dr. Hadaway recognizes that this is an extraordinary time requiring  
14 extraordinary government intervention in the markets, then he should adjust his “routine” cost  
15 of capital analysis to take this into consideration.

16 Q. What should Dr. Hadaway have done to adjust his “routine” cost of common  
17 equity analysis to consider the current capital and economic environment?

18 A. He should have at least become more realistic about the projected long-term  
19 sustainable GDP growth rate he used in his DCF analysis. It is clear that Dr. Hadaway  
20 believes that the use of a DCF analysis is reliable, but it is only reliable if he uses reasonable  
21 inputs.

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1 Q. Dr. Hadaway indicates on page 12, lines 3 through 8 of his rebuttal testimony  
2 that he agrees with the technical aspects of your multi-stage DCF analysis. If this is the case,  
3 then what is the primary dispute?

4 A. Our disagreement boils down to the appropriate long-term perpetual growth  
5 rate used to estimate the cost of common equity, not the soundness of the approach.

6 Q. Dr. Hadaway also disagrees with your reliance on one model to estimate the  
7 cost of common equity. How many models did he rely on for his primary recommendation?

8 A. One. Although Dr. Hadaway's recommendation is based on three different  
9 variations using the DCF methodology, it is still based on one methodology. He is simply  
10 using different growth rate estimates and assumptions in all three types of DCF analysis he  
11 performed. He then tested the reasonableness of these results by analyzing risk premiums  
12 implied by allowed ROEs and historical earned return spreads between the broader market  
13 and corporate bonds.

14 Q. Did you perform more than one DCF analysis in your direct testimony?

15 A. Yes. I performed both a constant-growth DCF analysis and a multiple-stage  
16 DCF analysis. However, both analyses are based on the theory that the present value of  
17 expected future cash flows (using dividends as the proxy) are discounted at the required rate  
18 of return on common equity to determine the price an investor is willing to pay for this  
19 expected future stream of cash flows. The constant-growth DCF analysis is just a simplified  
20 version of the other dividend discount models (the "DCF model" in utility regulatory  
21 terminology) and assumes a single constant-growth rate.

22 Q. Did you perform any other analysis in estimating the cost of common equity in  
23 this case?



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1           A.     Yes. As I already mentioned, I also performed the “routine” CAPM analysis,  
2 but considering the current capital market environment, I dismissed these results because they  
3 were unreasonable.

4           Q.     If you had used market data through the end of 2008, would your  
5 CAPM analysis have shown an even lower indicated cost of common equity?

6           A.     Yes. As can be seen in the attached Schedule 2, the CAPM indicated cost of  
7 common equity would have been even lower (6.00% based on geometric averages and 7.25%  
8 based on arithmetic averages) than that indicated in the Staff’s Cost of Service Report  
9 (6.73% based on geometric averages and 7.91% based on arithmetic averages) because of the  
10 contraction in stock prices during the last quarter of 2008. However, using these realized  
11 returns spreads as a proxy for the estimated equity risk premium is not logical considering  
12 today’s economic and capital market environment. Staff believes equity risk premiums have  
13 increased above those reflected in the historical earned return spreads traditionally used to  
14 estimate the cost of common equity. A DCF analysis using reasonable assumptions will  
15 provide the most reliable estimate of the current equity risk premiums required to invest in  
16 electric utility stocks. Because the CAPM is simply adjusting a figure (the equity risk  
17 premium) that is based on judgment and most likely estimated using the same methodology  
18 performed to directly estimate electric utility companies’ costs of common equity,  
19 Staff believes it is best to rely on this direct estimate rather than running it through another  
20 model.

21           Q.     Hasn’t Staff always been reluctant to give much weight to its CAPM cost of  
22 common equity indications?

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1           A.     Yes, but usually for the opposite reason. The spread between earned returns on  
2 the broader equity market and long-term government bonds overestimated the implied equity  
3 risk premiums based on stock price valuations. Before the recent stock market contraction,  
4 Staff consistently cited in its testimony many studies by prominent finance experts that  
5 questioned the use of historical earned return differences as being a reliable indicator of  
6 investors' required equity risk premiums. Although it is too early in the current economic  
7 crisis to find detailed published research on the current implied equity risk premiums,  
8 Staff believes that implied equity risk premiums have increased. Because a CAPM analysis  
9 using earned return spreads through 2008 shows a decrease in the risk premiums, this  
10 situation validates Staff's continued belief that performing a DCF analysis to estimate a utility  
11 company's cost of common equity provides the most reliable and responsive estimate.

12           Q.     Do you have any knowledge of any pension funds' expected returns for the  
13 broader market in light of the recent contraction in the stock market?

14           A.     Yes. It is my understanding that the Missouri State Employees' Retirement  
15 System (MOSER's) will base its upcoming asset allocation decisions on an expected return  
16 for large capitalization domestic equities (a proxy for the broader market) of 9.0 percent.  
17 Because regulated electric utility companies' tend to exhibit less risk than the broader market  
18 (as measured by betas), this supports the reasonableness of my recommended cost of common  
19 equity for KCPL of 9.25 to 10.25 percent, which is above that expected for the broader  
20 markets.

21           Q.     How much higher are Dr. Hadaday's DCF indicated cost of common equity  
22 estimates compared to those he provided in his direct testimony in this case?

23           A.     Approximately 55 basis points based on the mid-point from both estimates.

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1 Q. Do you believe there was justification for Dr. Hadaway to update his cost of  
2 common equity analysis in this case?

3 A. Yes, but I think a proper update would have given more consideration to lower  
4 growth rate expectations in the near-term due to poor economic conditions.  
5 However, remarkably, based on Dr. Hadaway's updated calculation of equity analysts'  
6 5-year EPS growth estimates for his proxy group, the EPS expectations have only declined by  
7 5 basis points (6.70% - 6.65%). Maybe these analysts do not believe that these electric utility  
8 companies' EPS growth rates will slow down along with the economy.  
9 However, GPE recently cited the slower regional economy as one of the primary reasons for  
10 reducing its dividend.

11 Q. If a rate of return witness performs a multiple-stage DCF analysis using  
12 5-year equity analysts' growth rates that are high and unsustainable, would this make his  
13 analysis unreasonable?

14 A. Only to the extent that he believes these growth rates should also be used for a  
15 perpetual growth rate. Otherwise, as long as he uses a reasonable perpetual growth rate, his  
16 estimated cost of common equity should be somewhat reasonable.

17 Q. If the cost of common equity has increased, as Dr. Hadaway's updated analysis  
18 implies, then is your recommendation still reasonable?

19 A. Yes. My analysis used stock prices from October 2008 through January 2009.  
20 This period fully captures the changes in market sentiment that occurred beginning in the fall  
21 of 2008. Although the mid-point of my recommendation is 9.75 percent, I recognized that  
22 there is even more uncertainty in estimating the cost of capital in today's environment and  
23 estimated a range that captured a full 100 basis points of reasonableness. In past cases in

1 which I sponsored ROR testimony, my recommended cost of common equity had been  
2 narrower.

3 Q. What cost of common equity did Aquila's financial advisors estimate when  
4 providing their "fair value" opinion for purposes of GPE's proposed acquisition of the current  
5 GMO properties?

6 A. Their estimated cost of equity was in the 9 to 10 percent range. If a 55 basis  
7 point increase in the cost of common equity is applied to the mid-point of this range, then the  
8 estimated cost of equity would be approximately 10.05 percent in today's environment.

9 Q. Is the above information relevant to the instant proceeding since the purpose of  
10 the use of the financial advisor's estimated cost of common equity was to determine a fair  
11 value for the GMO properties?

12 A. Yes. Investors are constantly evaluating what they believe is a proper price to  
13 pay for stock investments. The price they are willing to pay for these investments is based on  
14 the expected cash flows of the company, the growth of these cash flows and the risks of  
15 receiving these cash flows. This is what causes the market prices to change over time.  
16 GPE, as a prospective investor in the GMO properties, was evaluating a fair price to pay for  
17 the expected cash flows from the GMO properties.

18 Q. Did Dr. Hadaway use market price information to determine his estimated cost  
19 of common equity in this case?

20 A. Yes. This is the fundamental principle underlying the DCF methodology.  
21 The goal of doing such an analysis is to determine the required rate of return on common  
22 equity embedded in stock prices. The expected cash flows, the growth of the cash flows and

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1 the risk of these cash flows are discounted by the estimated cost of common equity to  
2 determine the price they are willing to pay for the stock.

3 Q. If the prices of electric utility stocks have come down, then doesn't this imply  
4 that the cost of common equity used by investors to discount expected future cash flows has  
5 gone up?

6 A. It depends. If the reason the stock price has been bid down is because of lower  
7 expected growth, then no, but if the stock price has been bid down due to higher required  
8 returns, then yes. Most likely it is a combination of both factors.

9 Q. Are you aware of any recently issued equity research reports covering  
10 GPE that provide an estimated cost of common equity even after the decline in GPE's stock  
11 price and the reduction of its dividend?

12 A. Yes. Goldman Sachs issued a research report on GPE on March 2, 2009,  
13 (see attached Schedule 3) that used an estimated cost of common equity of 9.0 percent to  
14 discount expected dividends. Goldman Sachs uses a combination of both a dividend discount  
15 model (referred to as the "DCF model" in utility ratemaking proceedings)  
16 and a price-to-earnings multiple analysis for purposes of their valuation analysis (see page 6  
17 of the attached report).

18 Another research report issued by KeyBank Capital Markets on February 11, 2009,  
19 (see attached Schedule 4) used a discount rate of 8.0 percent to discount a future expected  
20 price multiple of earnings for GPE. Because this discount rate is applied to expected future  
21 stock prices, the appropriate discount rate would be based on the estimated cost of common  
22 equity.

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1 Q. Why are the opinions of these analysts relevant to estimating the cost of  
2 common equity in a regulatory proceeding?

3 A. Because rate of return witnesses often rely on the EPS estimates of these  
4 analysts to estimate a proxy growth rate to use in their DCF analysis. However, it is  
5 important to understand that these EPS estimates are not used by these analysts as a  
6 sustainable, perpetual growth rate for a discounted cash flow analysis. They usually use  
7 something much lower.

8 Q. What perpetual growth rate was used by the Goldman Sachs analyst?

9 A. As can be seen on page 6, the terminal growth rate (i.e. the perpetual growth  
10 rate) used in the dividend discount model was 2.5 percent. This terminal growth rate is  
11 actually below the growth rate that I used in my DCF analysis and is much more in line with  
12 the terminal growth rates used by GPE's financial advisors in their analysis. I am not aware  
13 of any equity research reports or investment analysis that use terminal growth rates anywhere  
14 near the 6.2 percent growth rate Dr. Hadaway proposes to arrive at his estimated cost of  
15 common equity estimate of 11.55 percent.

16 Q. If you had used a 2.5 percent perpetual growth rate for your proxy group in  
17 your direct testimony, what would your estimated cost of common equity have been?

18 A. My estimated cost of common equity would have been approximately  
19 9.35 percent, which is fairly close to the 9.0 percent cost of common equity used by  
20 Goldman Sachs.

21 Q. Do the 5-year EPS forecasts for GPE published by IBES (Institutional  
22 Brokerage Estimate System) include the Goldman Sachs' analyst's (Michael Lapedes)  
23 estimate?

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1           A.     Yes. Michael Lapidès' estimate of a 5-year EPS growth rate for GPE was 6.87  
2 percent. These are the same type of estimates that Dr. Hadaway relies on to justify a  
3 unsustainable perpetual growth rate of above 6 percent. However, as can be seen from the  
4 attached report, in practice these analysts' do not rely on 5-year EPS forecasts for a perpetual  
5 growth rate in estimating stock values. They use something much lower (2.5% in this case).

6           Q.     If you substituted your estimated perpetual growth rate of 3.1 percent for  
7 Dr. Hadaway's 6.2 percent GDP growth rate in the two DCF analyses in which he  
8 incorporated this growth rate, what would the range of cost of common equity estimates have  
9 been?

10          A.     The cost of common equity range for his comparable group would have been  
11 8.3 percent to 8.5 percent.

12          Q.     What if you applied a more reasonable long-term expected GDP growth rate of  
13 4.5 percent?

14          A.     His cost of common equity estimates for both DCF analyses using  
15 GDP growth rates would have been 9.7 percent.

16          Q.     If the DCF indicated cost of common equity is still low when using more  
17 reasonable growth rates, then why have utility stock prices dropped so much in the past few  
18 months?

19          A.     Because the cost of common equity for utilities was even lower before the  
20 recent contraction in the stock market. I believe that much of the information from financial  
21 analysts and advisors that I provided in direct and rebuttal testimony corroborates much of the  
22 literature that had been published in the last several years that indicated that equity risk  
23 premiums were very low. In fact, Staff recently had the opportunity to read a Whitepaper,

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1 “U.S. Utilities: The Drivers of Returns, 1984-2004,” authored by Hugh Wynne,  
2 a Senior Analyst at Bernstein Research that was mentioned in another article Staff cited in its  
3 Cost of Service Report (p. 36), “The Dividend Yield Trap,” published in the October 2004  
4 issue of *Public Utilities Fortnightly*. The report is attached as Schedule 5 to this testimony.

5 Although this Whitepaper was published in August 2005, it is still relevant to this  
6 proceeding because it provides some historical context on the cost of equity for electric utility  
7 stock investments and analysis that provides support for perpetual growth rates based on  
8 industry fundamentals rather than the expected growth in the broader economy.

9 Q. Why is this report relevant?

10 A. This report provides support for the fact that there is not any rationale reason  
11 for investors to expect perpetual growth rates of much higher than 2 percent because the  
12 fundamentals of the electric utility industry just don’t support this assumption.  
13 Additionally, because this report evaluated long-term regulated electric utilities’ earnings  
14 growth rates over an economic environment that was rather robust, it would appear that using  
15 analysis from this period to project growth over an expected economic climate that may be  
16 less robust should be considered as an upper bounds for expected long-term growth going  
17 forward.

18 Q. Do you have any concerns about any aspect of the analysis in this research  
19 report?

20 A. Yes. I noticed that I did not select some of the companies used in the sample  
21 group in this report because they were not currently classified as “regulated” by the  
22 Edison Electric Institute (EEI). Mr. Wynne relied on the Cambridge Energy Research  
23 Associates (CERA) classification system and historical statistical analysis to determine if the



1 companies exhibited characteristics consistent with the lower volatility of regulated electric  
2 utility earnings. Although some of the companies he used may have some non-regulated  
3 operations, I note that 8 of the 30 comparable companies used by Dr. Hadaway are not  
4 classified as “regulated” by EEI.

5 Q. What are some of the key points in this research report that the Commission  
6 should consider when evaluating the evidence in this case?

7 A. First, the research report indicates that over the past 20-years (1984 – 2004),  
8 the sample of 13 continuously regulated electric utilities had an average EPS growth rate of  
9 only 1.1 percent. This compares to an aggregate earnings growth rate of 3.8 percent before  
10 dilution from the issuance of additional common equity.

11 This report found that the biggest driver of earnings growth for regulated electric  
12 utilities was total invested capital, which in turn was driven by demand growth. In both cases  
13 the R-squared for the two variables exceeded 90 percent. This means that the independent  
14 variable (invested capital in the first instance and demand growth in the second instance)  
15 explained the dependent variable (earnings growth in the first instance and invested capital in  
16 the second instance) over 90 percent of the time.

17 The report also examined the relationships between allowed ROEs and  
18 10-year Treasury yields. The report found that for every 100 basis point change  
19 in the 10-year Treasury yield, there was an approximate 56 basis point change in the allowed  
20 ROE. Of course, this relationship may provide some insight on commissions’ decisions  
21 on the allowed ROE, but it doesn’t necessarily provide insight on whether these allowed  
22 ROEs are similar to the cost of common equity. The report attributes the lag of changes in the  
23 allowed ROEs compared to the changes in the U.S. Treasury yields to the following:

1           The greater stability of allowed ROEs relative to underlying changes in  
2           U.S. Treasury yields likely reflects the efforts of regulators to limit the  
3           volatility in electricity rates while offering stable long-run returns on  
4           utility capital. Thus, regulators may look beyond the current peaks and  
5           troughs in Treasury yields when making their rate decisions,  
6           attenuating the impact of market movements in Treasury yields on  
7           allowed ROEs.  
8

9           The final section of the report discussed the implications of slow EPS growth for the  
10          valuation of regulated utilities. The report implies that electric utility equity valuation levels  
11          at that time implied relatively low discount rates (i.e. low costs of common equity).  
12          At the time, according to the report, electric utilities were trading at around 16 times forward  
13          earnings. If this were applied to companies that had a dividend payout ratio of around  
14          70 percent and 2 percent earnings growth, the implied expected return was only 6.4 percent.  
15          If the companies had a dividend payout ratio of 65 percent, then the expected return would  
16          have been even lower at 6.1 percent. If one assumed a higher earnings growth rate  
17          of 3 percent, then the expected returns would have been 7.4 percent and 7.1 percent,  
18          respectively.

19          Q.     If electric utility stock prices have recently declined since this report was  
20          released, doesn't this imply that the cost of common equity has increased?

21          A.     Assuming the expected growth rates are the same or slightly lower, then yes.  
22          However, it is important to be aware of opinions of what the cost of common equity was  
23          before the recent tightening of capital markets.

24          Q.     Is there any reason why the Bernstein research report is particularly relevant to  
25          Dr. Hadaway's analysis in this case?

26          A.     Yes. In Dr. Hadaway's deposition in the Aquila, Inc.'s rate case, Case No.  
27          ER-2005-0436 (Hadaway deposition at p. 56, ll. 10-16), Dr. Hadaway indicated that he did

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1 not believe utility company perpetual growth rates would change by more than  
2 100 to 200 basis points (1% to 2%) when explaining why he believed average analysts'  
3 growth rates of around 4.5 percent were not consistent with what he considered a more  
4 reasonable perpetual growth rate of around 6.60 percent.

5 Q. Do you agree with Dr. Hadaway that perpetual growth rates should not change  
6 that much?

7 A. Yes. Perpetual growth rates tend to be fairly generic and are based on industry  
8 fundamentals.

9 Q. If you agree that the perpetual growth rate should not change much, then what  
10 is your primary disagreement?

11 A. We disagree on the starting point of a reasonable perpetual growth rate.  
12 I believe it would be based on the fundamentals of the industry rather than a broader  
13 economic growth rate. If analysts' growth rates for both of our electric utility proxy group's  
14 had been in the three to five percent range, then I believe this would be close to a starting  
15 point, but even this may be too high based on the data and information I have analyzed that  
16 show investment analysts using even lower perpetual growth rates for utilities.

17 Q. Is Dr. Hadaway's position that a perpetual growth rate shouldn't change by  
18 much more than 1% to 2% consistent with your understanding of an appropriate situation in  
19 which to employ a DCF methodology other than the constant-growth DCF?

20 A. Yes. This is consistent with an explanation provided in the textbook  
21 *Investment Valuation: Tools and Techniques for Determining the Value of Any Asset*  
22 by Aswath Damodaran. This text states the following:

1           There is another instance in which an analyst may be able to stray from  
2           a strict limit imposed on the “stable growth rate.” If a firm is likely to  
3           maintain a few years of “above-stable” growth rates, an approximate  
4           value for the firm can be obtained by adding a premium to the stable  
5           growth rate, to reflect the above-average growth in the initial years.  
6           Even in this case, the flexibility that the analyst has is limited. The  
7           sensitivity of the model to growth implies that the stable growth rate  
8           cannot be more than 1% or 2% above the growth rate in the economy.  
9           If the deviation becomes larger, the analyst will be better served using a  
10          two-stage or three-stage model to capture the “super-normal” or  
11          “above-average” growth, and restricting the Gordon growth model  
12          [constant-growth DCF model] to when the firm becomes truly stable.

13  
14           Can a stable growth rate be much lower than the growth rate in the  
15           economy? There are no logical or mathematical limits on the  
16           downside. Firms that have a stable growth rate much lower than the  
17           growth rate in the economy will become smaller in proportion to the  
18           economy over time. Since there is no economic basis for arguing that  
19           this cannot happen, there is no reason to prevent analysts from using a  
20           stable growth rate much lower than the nominal growth rate in the  
21           economy.

22  
23           If the near-term growth rate of a company or an industry is expected to be significantly  
24           above the overall growth rate in the economy, then it appears that this would be the  
25           appropriate situation in which to use a multiple-stage DCF model. However, the above  
26           citation makes it clear that there is no reason to expect the stable growth rate to be equivalent  
27           to that of the growth in the economy if the fundamentals of the industry do not support the use  
28           of a broader economic growth rate.

29           Q.     Does the Bernstein research report you cited earlier support the idea that the  
30           expected growth in earnings for regulated electric utility companies would be the same as the  
31           expected growth in the economy?

32           A.     No. As the report states, the EPS growth rate for the sample of regulated  
33           electric utilities analyzed in the report grew at a rate of 1.1 percent annually from  
34           1984 through 2004. This compares to a nominal GDP growth rate of 5.52 percent over the

1 same period. Therefore, regulated electric utilities EPS growth rates were barely 20 percent  
2 of the expected growth of the overall economy. However, it should be noted that the  
3 aggregate earnings growth (before dilution due to issuing common stock for capital  
4 expenditures) of 3.8 percent was approximately 69 percent of the growth rate of the economy.

5 Mr. Wynne believes that the dilution experienced by these utilities was mainly due to the  
6 following reasons:

7 (i) a very high dividend payout ratio; (ii) a significant program of  
8 capital expenditure; (iii) the desire to maintain a minimum ratio of  
9 equity to total capital, necessitating the periodic issuance of stock to  
10 augment the equity funds available from retained earnings; and (iv) a  
11 tendency to increase the ratio of equity to total capital over time.

12  
13 Q. How does the historical EPS and aggregate earnings growth rates  
14 of 1.1 percent and 3.8 percent, respectively, compare to the perpetual growth rates estimated  
15 by Blackstone Advisory Services, L.P. (“Blackstone”) for purposes of analyzing the fair value  
16 of the GPE acquisition of the GMO properties?

17 A. They are somewhat comparable to the perpetual growth rates used  
18 for GPE without Strategic Energy and they are below the perpetual growth rates used for the  
19 GMO properties. The range of GPE perpetual growth rates was 1.7 percent to 3.2 percent  
20 with a mid-point of 2.45 percent and the range of GMO perpetual growth rates  
21 was 3.4 percent to 4.8 percent with a mid-point of 4.1 percent. Considering the fact that  
22 GMO’s revenues are approximately 30 percent of GPE’s consolidated revenues, a weighted  
23 average mid-point perpetual growth rate would be around 2.95 percent (70% times  
24 2.45% plus 30% times 4.1%).

Surrebuttal Testimony of  
David Murray

1 Q. Based on your review and analysis of all of the financial data used by various  
2 financial analysts advising investors in the investment industry, what do you conclude about  
3 investors' expectations of growth for the regulated electric utility industry?

4 A. That the only time an investor would use a growth rate in the 6 percent range  
5 would be if electric utility companies are experiencing abnormal growth that isn't sustainable.  
6 For example, it may be acceptable to expect higher earnings growth in the short-term  
7 if a company is making investments in rate base, but of course, this will be smoothed out  
8 somewhat by the reporting of earnings during construction in Allowance for Funds Used  
9 During Construction (AFUDC). However, once this initial bump in earnings recedes,  
10 then earnings should fall back in line with expected demand growth. This is probably why  
11 most of the perpetual growth rates Staff observed in various research reports were similar to  
12 projected growth rates in electricity consumption.

13 **RESPONSE TO MR. CLINE'S REBUTTAL TESTIMONY**

14 Q. Mr. Cline states that your testimony was incorrect when you asserted that  
15 utility companies' costs of capital were returning to levels prior to the credit crisis.  
16 How do you respond to Mr. Cline's statement?

17 A. My statement focused on the comparability of utility bond yields right before  
18 the severe credit tightening that occurred in October and November of 2008 and utility bond  
19 yields shortly after this period. According to the average Bloomberg Bond yield data for  
20 BBB rated utility bonds for 20, 25 and 30-year maturities, by the end of 2008, these average  
21 yields were around 6.96 percent compared to 7.95 percent in October and 8.20 percent

Surrebuttal Testimony of  
David Murray

1 in November. For the months of May 2008 through September 2008, these same average  
2 yields were in the range of 6.80 percent to 6.95 percent.

3 Q. Do you agree with Mr. Cline that the cost of capital has increased to some  
4 extent?

5 A. Yes. I think this is evident from the testimony I already provided in response  
6 to Dr. Hadaway's rebuttal. However, because of uncertainty in the economy and in the  
7 capital markets, "normal" risk premium relationships between the costs of debt and equity  
8 may not be holding true. Consequently, I still believe that performing a DCF analysis with  
9 reasonable inputs will provide the most reliable cost of common equity estimate.

10 Q. What does the cost of debt data that Mr. Cline provided on page 3,  
11 lines 18 through 23 of his rebuttal testimony confirm?

12 A. It corroborates many of the lower equity discount rates (i.e. costs of equity)  
13 used by various financial analysts' during the period in which KCPL was able to issue debt at  
14 low costs. If KCPL could issue debt at a coupon rate of 5.85 percent, then it is understandable  
15 why some equity analysts' were using costs of equity in the 7 to 8 percent range to discount  
16 GPE's projected cash flows. KCPL's anticipated increase in the cost of newly issued debt is  
17 corroborated by the 9 percent cost of equity recently used by Goldman Sachs to discount  
18 GPE's expected dividends.

19 Q. Does Mr. Cline raise any other issues with your testimony?

20 A. Yes. Mr. Cline believes that I should have adjusted the common equity  
21 balance reported on GPE's balance sheet to exclude Other Comprehensive Income associated  
22 with losses on interest rate derivatives. This would increase GPE's ratemaking common

Surrebuttal Testimony of  
David Murray

1 equity balance to 50.86 percent from the common equity balance I recommended  
2 of 50.65 percent.

3 Q. How did you determine the appropriate common equity balance for purposes  
4 of your capital structure recommendation?

5 A. I simply used the common equity balance reported to investors  
6 in GPE's SEC Form 10-Q Filing for September 30, 2008.

7 Q. Are you aware of the reason why KCPL believes the common equity balance  
8 should be adjusted to exclude Other Comprehensive Income?

9 A. Yes. Apparently KCPL believes that because the losses on derivatives are  
10 included in the embedded cost of debt, they should not be considered a current loss and  
11 deducted from the common equity balance. However, I could not find anything  
12 in GPE's "Notes to Consolidated Financial Statements" that would allow an investor to  
13 determine this was an appropriate adjustment. Therefore, I believe it is proper to continue to  
14 use the reported common equity balance.

15 **SUMMARY AND CONCLUSIONS**

16 Q. Please summarize the conclusions of your surrebuttal testimony.

17 A. My conclusions regarding the capital structure and cost of common equity are  
18 listed below.

19 1. My recommended common equity ratio is appropriate because it  
20 reflects the amount of common equity GPE reported to its investors in  
21 its SEC Form 10-Q filing;



Surrebuttal Testimony of  
David Murray

1                   2. My cost of common equity recommendation of 9.25 percent  
2                   to 10.25 percent is reasonable even in light of recent capital market  
3                   events because it would allow for the convergence of KCPL's allowed  
4                   ROE with its cost of common equity.

5           Q.     Does this conclude your surrebuttal testimony?

6           A.     Yes, it does.

**BEFORE THE PUBLIC SERVICE COMMISSION**

**OF THE STATE OF MISSOURI**

In the Matter of the Application of Kansas City )  
Power and Light Company for Approval to ) Case No. HR-2009-0089  
Make Certain Changes in its Charges for )  
Electric Service To Continue the )  
Implementation of Its Regulatory Plan. )

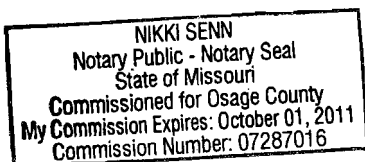
**AFFIDAVIT OF DAVID MURRAY**


STATE OF MISSOURI )  
 ) ss.  
COUNTY OF COLE )

David Murray, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Surrebuttal Testimony in question and answer form, consisting of 23 pages to be presented in the above case; that the answers in the foregoing Surrebuttal Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of his knowledge and belief.

  
\_\_\_\_\_  
David Murray

Subscribed and sworn to before me this 17<sup>th</sup> day of April, 2009.



  
\_\_\_\_\_  
Notary Public

# REGULATORY FOCUS

April 2, 2009

## MAJOR RATE CASE DECISIONS--JANUARY-MARCH 2009

For the first three months of 2009, the average electric equity return authorization by state commissions was 10.29% (nine determinations), compared to the 10.46% average in calendar-2008. (We note that without the 8.75% equity return authorized for United Illuminating in Connecticut, the average was 10.48% in the first quarter.) The average gas equity return authorization for the first quarter of 2009 was 10.24% (4 determinations), compared to the 10.37% average in calendar-2008.

After reaching a low in the late-1990's and early-2000's, the number of equity return determinations for energy companies has generally increased over the last several years. There were 67 electric and gas equity return determinations in 2008 versus only 24 in 2000. Increased costs, including environmental compliance expenditures, the need for generation and delivery infrastructure upgrades and expansion, and renewable generation requirements argue for a continuation of the increased level of rate case activity over the next several years. However, cost efficiencies from technological improvements, the use of multi-year settlements that do not specify return parameters, and a reduced number of companies due to mergers may prevent the number of rate cases and equity return determinations from significantly increasing further. We note that electric industry restructuring in many states has led to the unbundling of rates, with state commissions authorizing revenue requirement and return parameters for delivery operations only (which we footnote in our chronology), thus complicating historical data comparability. We also note that the current recession and the resulting increase in non-U.S. Treasury debt yields may indicate that utility equity costs have increased and lead to higher authorized ROEs by commissions.

The tables included in this study are extensions of those contained in the January 12, 2009 Regulatory Study entitled *Major Rate Case Decisions--January 2007-December 2008--Supplemental Study*. Refer to that report for information concerning individual rate case decisions that were rendered in 2007 and 2008. The table on page 2 shows annual average equity returns authorized since 1990, and by quarter since 2002, in major electric and gas rate decisions, followed by the number of determinations during each period. The tables on page 3 present the composite industry data for items in the chronology of this and earlier reports, summarized annually since 1996, and quarterly for the most recent nine quarters. The individual electric and gas cases decided in the first three months of 2009 are listed on pages 4 and 5, with the decision date shown first, followed by the company name, the abbreviation for the state issuing the decision, the authorized rate of return (ROR), return on equity (ROE), and percentage of common equity in the adopted capital structure. Next we indicate the month and year in which the adopted test year ended, whether the commission utilized an average or a year-end rate base, and the amount of the permanent rate change authorized. Summary data for 2008 is also included for comparative purposes. Fuel adjustment clause rate changes and other periodic rate adjustments are not reflected in this study.

**Average Equity Returns Authorized January 1990 - March 2009**

| Year        | Period             | Electric Utilities |           | Gas Utilities |           |
|-------------|--------------------|--------------------|-----------|---------------|-----------|
|             |                    | ROE %              | (# Cases) | ROE %         | (# Cases) |
| <b>1990</b> | Full Year          | 12.70              | (44)      | 12.67         | (31)      |
| <b>1991</b> | Full Year          | 12.55              | (45)      | 12.46         | (35)      |
| <b>1992</b> | Full Year          | 12.09              | (48)      | 12.01         | (29)      |
| <b>1993</b> | Full Year          | 11.41              | (32)      | 11.35         | (45)      |
| <b>1994</b> | Full Year          | 11.34              | (31)      | 11.35         | (28)      |
| <b>1995</b> | Full Year          | 11.55              | (33)      | 11.43         | (16)      |
| <b>1996</b> | Full Year          | 11.39              | (22)      | 11.19         | (20)      |
| <b>1997</b> | Full Year          | 11.40              | (11)      | 11.29         | (13)      |
| <b>1998</b> | Full Year          | 11.66              | (10)      | 11.51         | (10)      |
| <b>1999</b> | Full Year          | 10.77              | (20)      | 10.66         | (9)       |
| <b>2000</b> | Full Year          | 11.43              | (12)      | 11.39         | (12)      |
| <b>2001</b> | Full Year          | 11.09              | (18)      | 10.95         | (7)       |
|             | 1st Quarter        | 10.87              | (5)       | 10.67         | (3)       |
|             | 2nd Quarter        | 11.41              | (6)       | 11.64         | (4)       |
|             | 3rd Quarter        | 11.06              | (4)       | 11.50         | (3)       |
|             | 4th Quarter        | 11.20              | (7)       | 10.78         | (11)      |
| <b>2002</b> | <b>Full Year</b>   | <b>11.16</b>       | (22)      | <b>11.03</b>  | (21)      |
|             | 1st Quarter        | 11.47              | (7)       | 11.38         | (5)       |
|             | 2nd Quarter        | 11.16              | (4)       | 11.36         | (4)       |
|             | 3rd Quarter        | 9.95               | (5)       | 10.61         | (5)       |
|             | 4th Quarter        | 11.09              | (6)       | 10.84         | (11)      |
| <b>2003</b> | <b>Full Year</b>   | <b>10.97</b>       | (22)      | <b>10.99</b>  | (25)      |
|             | 1st Quarter        | 11.00              | (3)       | 11.10         | (4)       |
|             | 2nd Quarter        | 10.54              | (6)       | 10.25         | (2)       |
|             | 3rd Quarter        | 10.33              | (2)       | 10.37         | (8)       |
|             | 4th Quarter        | 10.91              | (8)       | 10.66         | (6)       |
| <b>2004</b> | <b>Full Year</b>   | <b>10.75</b>       | (19)      | <b>10.59</b>  | (20)      |
|             | 1st Quarter        | 10.51              | (7)       | 10.65         | (2)       |
|             | 2nd Quarter        | 10.05              | (7)       | 10.54         | (5)       |
|             | 3rd Quarter        | 10.84              | (4)       | 10.47         | (5)       |
|             | 4th Quarter        | 10.75              | (11)      | 10.40         | (14)      |
| <b>2005</b> | <b>Full Year</b>   | <b>10.54</b>       | (29)      | <b>10.46</b>  | (26)      |
|             | 1st Quarter        | 10.38              | (3)       | 10.63         | (6)       |
|             | 2nd Quarter        | 10.68              | (6)       | 10.50         | (2)       |
|             | 3rd Quarter        | 10.06              | (7)       | 10.45         | (3)       |
|             | 4th Quarter        | 10.39              | (10)      | 10.14         | (5)       |
| <b>2006</b> | <b>Full Year</b>   | <b>10.36</b>       | (26)      | <b>10.43</b>  | (16)      |
|             | 1st Quarter        | 10.27              | (8)       | 10.44         | (10)      |
|             | 2nd Quarter        | 10.27              | (11)      | 10.12         | (4)       |
|             | 3rd Quarter        | 10.02              | (4)       | 10.03         | (8)       |
|             | 4th Quarter        | 10.56              | (16)      | 10.27         | (15)      |
| <b>2007</b> | <b>Full Year</b>   | <b>10.36</b>       | (39)      | <b>10.24</b>  | (37)      |
|             | 1st Quarter        | 10.45              | (10)      | 10.38         | (7)       |
|             | 2nd Quarter        | 10.57              | (8)       | 10.17         | (3)       |
|             | 3rd Quarter        | 10.47              | (11)      | 10.49         | (7)       |
|             | 4th Quarter        | 10.33              | (8)       | 10.34         | (13)      |
| <b>2008</b> | <b>Full Year</b>   | <b>10.46</b>       | (37)      | <b>10.37</b>  | (30)      |
| <b>2009</b> | <b>1st Quarter</b> | <b>10.29</b>       | (9)       | <b>10.24</b>  | (4)       |

**Electric Utilities--Summary Table\***

|             | Period             | ROR % (# Cases) |             | ROE % (# Cases) |             | Eq. as %<br>Cap. Struc. (# Cases) |             | Amt.<br>\$ Mil. (# Cases) |             |
|-------------|--------------------|-----------------|-------------|-----------------|-------------|-----------------------------------|-------------|---------------------------|-------------|
|             |                    |                 |             |                 |             |                                   |             |                           |             |
| 1996        | Full Year          | 9.21            | (20)        | 11.39           | (22)        | 44.34                             | (20)        | -5.6                      | (38)        |
| 1997        | Full Year          | 9.16            | (12)        | 11.40           | (11)        | 48.79                             | (11)        | -553.3                    | (33)        |
| 1998        | Full Year          | 9.44            | (9)         | 11.66           | (10)        | 46.14                             | (8)         | -429.3                    | (31)        |
| 1999        | Full Year          | 8.81            | (18)        | 10.77           | (20)        | 45.08                             | (17)        | -1683.8                   | (30)        |
| 2000        | Full Year          | 9.20            | (12)        | 11.43           | (12)        | 48.85                             | (12)        | -291.4                    | (34)        |
| 2001        | Full Year          | 8.93            | (15)        | 11.09           | (18)        | 47.20                             | (13)        | 14.2                      | (21)        |
| 2002        | Full Year          | 8.72            | (20)        | 11.16           | (22)        | 46.27                             | (19)        | -475.4                    | (24)        |
| 2003        | Full Year          | 8.86            | (20)        | 10.97           | (22)        | 49.41                             | (19)        | 313.8                     | (12)        |
| 2004        | Full Year          | 8.44            | (18)        | 10.75           | (19)        | 46.84                             | (17)        | 1091.5                    | (30)        |
| 2005        | Full Year          | 8.30            | (26)        | 10.54           | (29)        | 46.73                             | (27)        | 1373.7                    | (36)        |
| 2006        | Full Year          | 8.24            | (24)        | 10.36           | (26)        | 48.67                             | (23)        | 1465.0                    | (42)        |
|             | 1st Quarter        | 8.44            | (8)         | 10.27           | (8)         | 47.80                             | (8)         | 403.5                     | (9)         |
|             | 2nd Quarter        | 7.94            | (11)        | 10.27           | (11)        | 46.02                             | (11)        | 718.6                     | (12)        |
|             | 3rd Quarter        | 7.90            | (4)         | 10.02           | (4)         | 48.34                             | (4)         | 119.1                     | (6)         |
|             | 4th Quarter        | 8.38            | (15)        | 10.56           | (16)        | 49.59                             | (14)        | 160.7                     | (19)        |
| 2007        | Full Year          | 8.22            | (38)        | 10.36           | (39)        | 48.01                             | (37)        | 1401.9                    | (46)        |
|             | 1st Quarter        | 8.36            | (9)         | 10.45           | (10)        | 49.25                             | (8)         | 802.9                     | (9)         |
|             | 2nd Quarter        | 8.21            | (7)         | 10.57           | (8)         | 47.64                             | (7)         | 510.5                     | (8)         |
|             | 3rd Quarter        | 8.32            | (10)        | 10.47           | (11)        | 48.96                             | (10)        | 737.5                     | (13)        |
|             | 4th Quarter        | 8.09            | (9)         | 10.33           | (8)         | 47.58                             | (8)         | 848.5                     | (12)        |
| <b>2008</b> | <b>Full Year</b>   | <b>8.25</b>     | <b>(35)</b> | <b>10.46</b>    | <b>(37)</b> | <b>48.41</b>                      | <b>(33)</b> | <b>2899.4</b>             | <b>(42)</b> |
| <b>2009</b> | <b>1st Quarter</b> | <b>8.19</b>     | <b>(8)</b>  | <b>10.29</b>    | <b>(9)</b>  | <b>48.52</b>                      | <b>(8)</b>  | <b>856.3</b>              | <b>(14)</b> |

**Gas Utilities--Summary Table\***

|             | Period             | ROR % (# Cases) |             | ROE % (# Cases) |             | Eq. as %<br>Cap. Struc. (# Cases) |             | Amt.<br>\$ Mil. (# Cases) |             |
|-------------|--------------------|-----------------|-------------|-----------------|-------------|-----------------------------------|-------------|---------------------------|-------------|
|             |                    |                 |             |                 |             |                                   |             |                           |             |
| 1996        | Full Year          | 9.25            | (23)        | 11.19           | (20)        | 47.69                             | (19)        | 193.4                     | (34)        |
| 1997        | Full Year          | 9.13            | (13)        | 11.29           | (13)        | 47.78                             | (11)        | -82.5                     | (21)        |
| 1998        | Full Year          | 9.46            | (10)        | 11.51           | (10)        | 49.50                             | (10)        | 93.9                      | (20)        |
| 1999        | Full Year          | 8.86            | (9)         | 10.66           | (9)         | 49.06                             | (9)         | 51.0                      | (14)        |
| 2000        | Full Year          | 9.33            | (13)        | 11.39           | (12)        | 48.59                             | (12)        | 135.9                     | (20)        |
| 2001        | Full Year          | 8.51            | (6)         | 10.95           | (7)         | 43.96                             | (5)         | 114.0                     | (11)        |
| 2002        | Full Year          | 8.80            | (20)        | 11.03           | (21)        | 48.29                             | (18)        | 303.6                     | (26)        |
| 2003        | Full Year          | 8.75            | (22)        | 10.99           | (25)        | 49.93                             | (22)        | 260.1                     | (30)        |
| 2004        | Full Year          | 8.34            | (21)        | 10.59           | (20)        | 45.90                             | (20)        | 303.5                     | (31)        |
| 2005        | Full Year          | 8.25            | (29)        | 10.46           | (26)        | 48.66                             | (24)        | 458.4                     | (34)        |
| 2006        | Full Year          | 8.51            | (16)        | 10.43           | (16)        | 47.43                             | (16)        | 444.0                     | (25)        |
|             | 1st Quarter        | 8.40            | (10)        | 10.44           | (10)        | 48.33                             | (9)         | 158.4                     | (13)        |
|             | 2nd Quarter        | 8.32            | (3)         | 10.12           | (4)         | 49.67                             | (4)         | 37.3                      | (5)         |
|             | 3rd Quarter        | 7.88            | (7)         | 10.03           | (8)         | 48.70                             | (6)         | 402.0                     | (12)        |
|             | 4th Quarter        | 7.97            | (12)        | 10.27           | (15)        | 47.74                             | (11)        | 215.7                     | (18)        |
| 2007        | Full Year          | 8.12            | (32)        | 10.24           | (37)        | 48.37                             | (30)        | 813.4                     | (48)        |
|             | 1st Quarter        | 8.78            | (7)         | 10.38           | (7)         | 52.07                             | (7)         | 129.6                     | (7)         |
|             | 2nd Quarter        | 8.28            | (3)         | 10.17           | (3)         | 51.80                             | (3)         | 52.0                      | (4)         |
|             | 3rd Quarter        | 8.33            | (7)         | 10.49           | (7)         | 50.58                             | (7)         | 312.8                     | (10)        |
|             | 4th Quarter        | 8.45            | (13)        | 10.34           | (13)        | 49.25                             | (13)        | 390.4                     | (20)        |
| <b>2008</b> | <b>Full Year</b>   | <b>8.48</b>     | <b>(30)</b> | <b>10.37</b>    | <b>(30)</b> | <b>50.47</b>                      | <b>(30)</b> | <b>884.8</b>              | <b>(41)</b> |
| <b>2009</b> | <b>1st Quarter</b> | <b>8.01</b>     | <b>(5)</b>  | <b>10.24</b>    | <b>(4)</b>  | <b>43.81</b>                      | <b>(4)</b>  | <b>156.4</b>              | <b>(7)</b>  |

\* Number of observations in each period indicated in parentheses.

## ELECTRIC UTILITY DECISIONS

| <u>Date</u> | <u>Company (State)</u>               | <u>ROR</u><br><u>%</u> | <u>ROE</u><br><u>%</u> | <u>Common</u><br><u>Eq. as %</u><br><u>Cap. Str.</u> | <u>Test Year</u><br><u>&amp;</u><br><u>Rate Base</u> | <u>Amt.</u><br><u>\$ Mil.</u> |
|-------------|--------------------------------------|------------------------|------------------------|--|--|-------------------------------|
| <b>2008</b> | <b>FULL-YEAR: AVERAGES/TOTAL</b>     | <b>8.25</b>            | <b>10.46</b>           | <b>48.41</b>   |  | <b>2,899.4</b>                |
|             | <b>MEDIAN</b>                        | <b>8.27</b>            | <b>10.25</b>           | <b>48.99</b>   |  | <b>---</b>                    |
|             | <b>OBSERVATIONS</b>                  | <b>35</b>              | <b>37</b>              | <b>33</b>  |  | <b>42</b>                     |
| 1/14/09     | Public Service Oklahoma (OK)         | 8.31                   | 10.50                  | 44.10  | 2/08-YE  | 59.3 (1)                      |
| 1/21/09     | Westar Energy (KS)                   | ---                    | ---                    | ---  | ---  | 65.0 (B)                      |
| 1/21/09     | Kansas Gas & Electric (KS)           | ---                    | ---                    | ---  | ---  | 65.0 (B)                      |
| 1/21/09     | Cleveland Electric Illuminating (OH) | 8.48                   | 10.50 (E)              | 49.00  | 2/08-DC  | 29.2 (D)                      |
| 1/21/09     | Ohio Edison (OH)                     | 8.48                   | 10.50 (E)              | 49.00  | 2/08-DC  | 68.9 (D)                      |
| 1/21/09     | Toledo Edison (OH)                   | 8.48                   | 10.50 (E)              | 49.00  | 2/08-DC  | 38.5 (D)                      |
| 1/30/09     | Idaho Power (ID)                     | 8.18                   | 10.50                  | 49.27  | 12/08-YE   | 27.0 (R)                      |
| 2/4/09      | United Illuminating (CT)             | 7.59                   | 8.75                   | 50.00  | 12/07-A  | 6.1 (D,2)                     |
| 2/4/09      | Interstate Power & Light (IA)        | ---                    | 10.10 (3)              | ---  | ---  | ---                           |
| 2/5/09      | Kentucky Utilities (KY)              | ---                    | ---                    | ---  | ---  | -8.9 (B)                      |
| 2/5/09      | Louisville Gas & Electric (KY)       | ---                    | ---                    | ---  | ---  | -13.2 (B)                     |
| 2/10/09     | Union Electric (MO)                  | 8.34                   | 10.76                  | 52.01  | 3/08-YE  | 161.7                         |
| 3/4/09      | Indiana Michigan Power (IN)          | 7.62                   | 10.50                  | 45.80 *  | 9/07-YE  | 19.1 (4)                      |
| 3/11/09     | Entergy Texas (TX)                   | ---                    | ---                    | ---  | 3/07   | 30.5 (B,I,5)                  |
| 3/17/09     | Southern California Edison (CA)      | ---                    | ---                    | ---  | 12/09-A  | 308.1 (6)                     |
| <b>2009</b> | <b>1ST QUARTER: AVERAGES/TOTAL</b>   | <b>8.19</b>            | <b>10.29</b>           | <b>48.52</b>   |  | <b>856.3</b>                  |
|             | <b>MEDIAN</b>                        | <b>8.33</b>            | <b>10.50</b>           | <b>49.00</b>   |  | <b>---</b>                    |
|             | <b>OBSERVATIONS</b>                  | <b>8</b>               | <b>9</b>               | <b>8</b>   |  | <b>14</b>                     |

## GAS UTILITY DECISIONS

| <u>Date</u> | <u>Company (State)</u>               | <u>ROR</u><br><u>%</u> | <u>ROE</u><br><u>%</u> | <u>Common</u><br><u>Eq. as %</u><br><u>Cap. Str.</u> | <u>Test Year</u><br><u>&amp;</u><br><u>Rate Base</u> | <u>Amt.</u><br><u>\$ Mil.</u> |
|-------------|--------------------------------------|------------------------|------------------------|--|--|-------------------------------|
| <b>2008</b> | <b>FULL-YEAR: AVERAGES/TOTAL</b>     | <b>8.48</b>            | <b>10.37</b>           | <b>50.47</b>   |  | <b>884.8</b>                  |
|             | <b>MEDIAN</b>                        | <b>8.41</b>            | <b>10.35</b>           | <b>50.37</b>   |  | <b>---</b>                    |
|             | <b>OBSERVATIONS</b>                  | <b>30</b>              | <b>30</b>              | <b>30</b>  |  | <b>41</b>                     |
| 1/7/09      | Vectren Energy Delivery of Ohio (OH) | 8.89                   | ---                    | ---  | 5/08-DC  | 14.8 (B)                      |
| 1/13/09     | Michigan Gas Utilities (MI)          | 7.60                   | 10.45                  | 46.49 *  | 12/09  | 6.0 (B)                       |
| 2/2/09      | New England Gas (MA)                 | 7.74                   | 10.05                  | 34.19  | 12/07-YE   | 3.7                           |
| 2/5/09      | Louisville Gas & Electric (KY)       | ---                    | ---                    | ---  | ---  | 22.0 (B)                      |
| 2/26/09     | Equitable Gas (PA)                   | ---                    | ---                    | ---  | 12/08  | 38.4 (B)                      |
| 3/9/09      | Atmos Energy (TN)                    | 8.24                   | 10.30                  | 48.12  | 6/08-A   | 2.5 (B)                       |
| 3/25/09     | Northern Illinois Gas (IL)           | 7.58                   | 10.17                  | 46.42  | 12/09-A  | 69.0                          |
| <b>2009</b> | <b>1ST QUARTER: AVERAGES/TOTAL</b>   | <b>8.01</b>            | <b>10.24</b>           | <b>43.81</b>   |  | <b>156.4</b>                  |
|             | <b>MEDIAN</b>                        | <b>7.74</b>            | <b>10.24</b>           | <b>46.46</b>   |  | <b>---</b>                    |
|             | <b>OBSERVATIONS</b>                  | <b>5</b>               | <b>4</b>               | <b>4</b>   |  | <b>7</b>                      |

**FOOTNOTES**

- A- Average
- B- Order followed stipulation or settlement by the parties. Decision particulars not necessarily precedent-setting or specifically adopted by the regulatory body.
- D- Applies to electric delivery only
- DC- Date certain
- E- Estimated
- I- Interim rates implemented prior to the issuance of final order, normally under bond and subject to refund.
- R- Revised
- YE- Year-end
- \* Capital structure includes cost-free items or tax credit balances at the overall rate of return.

- (1) Recovery of an additional \$22.1 million authorized through adjustment mechanisms.
- (2) Second-year distribution rate increase of \$19.1 million authorized based on a 7.76% ROR. This increase is subject to adjustment for pension expense.
- (3) Adopted ROE applies only to the company's proposed 649-MW, coal-fired Sutherland Unit 4 plant. The company subsequently cancelled plans to construct the plant.
- (4) Commission decision modified a settlement. Recovery of an additional \$22.5 million authorized through tracking mechanisms.
- (5) Indicated rate increase includes a \$46.7 million base rate increase offset by a net \$16.2 million decrease in revenues collected under certain riders.
- (6) Indicated rate increase reflects the one-time refund of a \$72.5 million overcollection of postretirement benefits other than pension costs. Additional rate increases of \$205.3 million and \$219 million authorized for 2010 and 2011, respectively. Rate of return was not an issue in this case.

Dennis Spurduto

**Kansas City Power and Light Company**

**Case No. ER-2009-0089**

**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 Great Plains Energy**

|                         | (1)                  | (2)                             | (3)   | (4)  | (5)  | (6)   |
|-------------------------|----------------------|---------------------------------|---|--|--|---|
|                         |                      |                                 | Arithmetic<br>Average<br>Market<br>Risk<br>Premium<br>(1926-2008) | Geometric<br>Average<br>Market<br>Risk<br>Premium<br>(1926-2008) | Arithmetic<br>CAPM<br>Cost of<br>Common<br>Equity<br>(1926-2008) | Geometric<br>CAPM<br>Cost of<br>Common<br>Equity<br>(1926-2008) |
| Company Name            | Risk<br>Free<br>Rate | Company's<br>Value Line<br>Beta |   |  |  |   |
| Ameren Corp.            | 3.13%                | 0.80                            | 5.60%   | 3.90%  | 7.61%  | 6.25%   |
| American Electric Power | 3.13%                | 0.75                            | 5.60%   | 3.90%  | 7.33%  | 6.06%   |
| Cleco Corp.             | 3.13%                | 0.80                            | 5.60%   | 3.90%  | 7.61%  | 6.25%   |
| DPL Inc.                | 3.13%                | 0.65                            | 5.60%   | 3.90%  | 6.77%  | 5.67%   |
| IDACORP, Inc.           | 3.13%                | 0.85                            | 5.60%   | 3.90%  | 7.89%  | 6.45%   |
| Northeast Utilities     | 3.13%                | 0.75                            | 5.60%   | 3.90%  | 7.33%  | 6.06%   |
| PG&E Corp               | 3.13%                | 0.85                            | 5.60%   | 3.90%  | 7.89%  | 6.45%   |
| Pinnacle West Capital   | 3.13%                | 0.75                            | 5.60%   | 3.90%  | 7.33%  | 6.06%   |
| Progress Energy         | 3.13%                | 0.60                            | 5.60%   | 3.90%  | 6.49%  | 5.47%   |
| Southern Company        | 3.13%                | 0.55                            | 5.60%   | 3.90%  | 6.21%  | 5.28%   |
| Xcel Energy inc.        | 3.13%                | 0.75                            | 5.60%   | 3.90%  | 7.33%  | 6.06%   |
| <b>Average</b>          |                      | <b>0.74</b>                     |   |  | <b>7.25%</b>   | <b>6.00%</b>  |
| Great Plains Energy     | 3.13%                | 0.65                            | 5.60%   | 3.90%  | 6.77%  | 5.67%   |

Column 1 = The appropriate yield is equal to the average 30-year U.S. Treasury Bond yield for January 2009 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 Investor Ratings & Reports, November 7, November 28, December 26, 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 - 2008 was determined to be 5.60% based on an arithmetic average as calculated in Ibbotson Associates, Inc.'s Stocks, Bonds, Bills, and Inflation: 2008 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 - 2008 was determined to be 3.9% based on a geometric average as calculated in Ibbotson Associates, Inc.'s Stocks, Bonds, Bills, and Inflation: 2008 Yearbook.

Column 5 = (Column 1 + (Column 2 \* Column 3)).

Column 6 = (Column 1 + (Column 2 \* Column 4)).





COMPANY UPDATE  
**Great Plains Energy Inc. (GXP)**

Neutral

**Financing NT needs outweigh valuation on normalized LT earnings**

**What's changed**

GXP's announcement of a dividend decrease and disappointing 2009 guidance creates a potential opportunity for longer-term oriented investors, although near-term equity issuances present a clear overhang. GXP's shares declined approximately 32% YTD versus small- and mid-cap Regulated Utility peers down 14%, but equity issuances in 2009—roughly 12% of the market cap and at prices well below book value of about \$21 per share—may present an even more attractive entry point. We update estimates to reflect (1) increased regulatory lag weighing on 2010/2011 earnings, (2) reduced dividends and equity issuances, and (3) lower share price for equity offerings. Our 2009/2010/2011 EPS estimates go to \$1.27/\$1.64/\$2.13 from \$1.31/\$1.65/\$2.12

**Implications**

Valuation on normalized earnings power screens attractive, but 2009-2010 multiple comparisons are less so, given under-earning due to regulatory lag. GXP's dividend announcement and the need for equity financing highlights predicaments that utilities—especially those trading well below book value—face if they cannot reduce capital spending. Longer-term, more patient investors may consider building a position, given the sell-off, although we recommend waiting until clarity arrives on timing of issuances.

**Valuation**

We maintain GXP's 12-month price target of \$19, given overhang of equity issuances, implying, 46% upside potential, as detailed in our February 22 note, *Returning to Center Court: Financing needs outweigh LT valuations*. GXP trades at an 8%/15% discount on 2009/2010 estimates but at a 24%/25% discount on more normalized 2011-2012 estimates.

**Key risks**

Primary risks include (1) higher-than-expected equity financing needs, (2) rate case and regulatory risks, especially given potential delays and cost over-runs on coal plant construction, and (3) regulatory lag in 2010 and 2011.

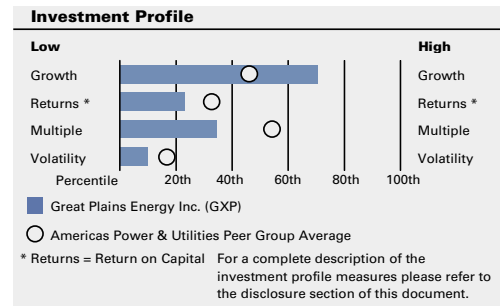
**INVESTMENT LIST MEMBERSHIP**

Neutral

**Coverage View: Neutral**

United States:  
 Power

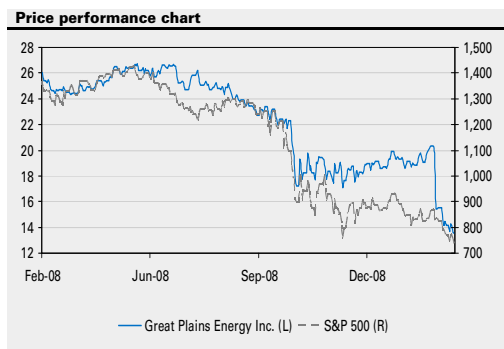
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| Key data                   | Current |
|----------------------------|---------|
| Price (\$)                 | 13.54   |
| 12 month price target (\$) | 19.00   |
| Market cap (\$ mn)         | 1,605.8 |

|                     | 12/08   | 12/09E  | 12/10E  | 12/11E  |
|---------------------|---------|---------|---------|---------|
| Revenue (\$ mn) New | 2,197.9 | 2,234.5 | 2,390.4 | 2,583.1 |
| Revenue (\$ mn) Old | 2,197.9 | 2,257.9 | 2,407.7 | 2,595.4 |
| EPS (\$) New        | 1.39    | 1.27    | 1.64    | 2.13    |
| EPS (\$) Old        | 1.39    | 1.31    | 1.65    | 2.12    |
| P/E (X)             | 9.7     | 10.7    | 8.3     | 6.4     |
| EV/EBITDA (X)       | 9.6     | 6.4     | 5.6     | 4.9     |
| ROE (%)             | 8.3     | 6.1     | 7.3     | 9.7     |

|          | 12/08 | 3/09E  | 6/09E | 9/09E |
|----------|-------|--------|-------|-------|
| EPS (\$) | 0.06  | (0.01) | 0.21  | 0.80  |



| Share price performance (%) | 3 month | 6 month | 12 month |
|-----------------------------|---------|---------|----------|
| Absolute                    | (26.6)  | (42.4)  | (48.4)   |
| Rel. to S&P 500             | (11.4)  | 0.5     | (3.1)    |

Source: Company data, Goldman Sachs Research estimates, FactSet. Price as of 2/27/2009 close.

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# Great Plains Energy Inc.: Summary financials

| Profit model (\$ mn)                      | 12/08          | 12/09E         | 12/10E         | 12/11E         | Balance sheet (\$ mn)                 | 12/08          | 12/09E         | 12/10E         | 12/11E         |
|---|----------------|----------------|----------------|----------------|---------------------------------------|----------------|----------------|----------------|----------------|
| Total revenue                             | 2,197.9        | 2,234.5        | 2,390.4        | 2,583.1        | Cash & equivalents                    | 61.1           | 87.4           | 165.0          | 260.9          |
| Cost of goods sold                        | (937.8)        | (648.8)        | (660.8)        | (674.1)        | Accounts receivable                   | 242.3          | 242.3          | 242.3          | 242.3          |
| SG&A                                      | (119.3)        | (102.2)        | (105.2)        | (108.4)        | Inventory                             | 186.3          | 186.3          | 186.3          | 186.3          |
| R&D                                       | 0.0            | 0.0            | 0.0            | 0.0            | Other current assets                  | 114.1          | 114.1          | 114.1          | 114.1          |
| Other operating profit/(expense)          | (561.5)        | (713.2)        | (731.2)        | (749.6)        | <b>Total current assets</b>           | <b>603.8</b>   | <b>630.1</b>   | <b>707.7</b>   | <b>803.6</b>   |
| ESO expense                               | 0.0            | 0.0            | 0.0            | 0.0            | Net PP&E                              | 6,081.3        | 6,475.4        | 6,802.5        | 7,319.3        |
| <b>EBITDA</b>                             | <b>579.3</b>   | <b>770.3</b>   | <b>893.2</b>   | <b>1,051.0</b> | Net intangibles                       | 0.0            | 0.0            | 0.0            | 0.0            |
| Depreciation & amortization               | (215.0)        | (302.2)        | (349.7)        | (339.3)        | Total investments                     | 0.0            | 0.0            | 0.0            | 0.0            |
| <b>EBIT</b>                               | <b>364.3</b>   | <b>468.1</b>   | <b>543.5</b>   | <b>711.7</b>   | Other long-term assets                | 1,184.3        | 1,185.7        | 1,187.1        | 1,188.5        |
| Net interest income/(expense)             | (111.8)        | (217.9)        | (217.9)        | (235.2)        | <b>Total assets</b>                   | <b>7,869.4</b> | <b>8,291.1</b> | <b>8,697.3</b> | <b>9,311.4</b> |
| Income/(loss) from associates             | 0.0            | 0.0            | 0.0            | 0.0            | Accounts payable                      | 418.0          | 418.0          | 418.0          | 418.0          |
| Others                                    | 20.9           | 17.7           | 17.7           | 17.7           | Short-term debt                       | 654.9          | 379.9          | 379.9          | 379.9          |
| <b>Pretax profits</b>                     | <b>273.4</b>   | <b>267.9</b>   | <b>343.3</b>   | <b>494.2</b>   | Other current liabilities             | 264.5          | 290.1          | 315.7          | 341.3          |
| Provision for taxes                       | (100.8)        | (103.3)        | (132.2)        | (190.3)        | <b>Total current liabilities</b>      | <b>1,337.4</b> | <b>1,088.0</b> | <b>1,113.6</b> | <b>1,139.2</b> |
| Minority interest                         | (0.2)          | 0.0            | 0.0            | 0.0            | Long-term debt                        | 2,556.6        | 2,888.1        | 3,063.1        | 3,101.1        |
| <b>Net income pre-preferred dividends</b> | <b>172.4</b>   | <b>164.7</b>   | <b>211.1</b>   | <b>303.9</b>   | Other long-term liabilities           | 1,385.8        | 1,465.8        | 1,565.8        | 1,705.8        |
| Preferred dividends                       | (1.7)          | (1.7)          | (1.7)          | (1.7)          | <b>Total long-term liabilities</b>    | <b>3,942.4</b> | <b>4,353.9</b> | <b>4,628.9</b> | <b>4,806.9</b> |
| <b>Net income (pre-exceptionals)</b>      | <b>170.7</b>   | <b>163.0</b>   | <b>209.5</b>   | <b>302.3</b>   | <b>Total liabilities</b>              | <b>5,279.8</b> | <b>5,441.9</b> | <b>5,742.5</b> | <b>5,946.1</b> |
| Post tax exceptionals                     | (29.8)         | 0.0            | 2.1            | 0.0            | Preferred shares                      | 39.0           | 39.0           | 39.0           | 39.0           |
| <b>Net income (post-exceptionals)</b>     | <b>140.9</b>   | <b>163.0</b>   | <b>211.6</b>   | <b>302.3</b>   | <b>Total common equity</b>            | <b>2,550.6</b> | <b>2,810.2</b> | <b>2,915.8</b> | <b>3,326.3</b> |
| <b>EPS (basic, pre-exception) (\$)</b>    | <b>1.69</b>    | <b>1.27</b>    | <b>1.62</b>    | <b>2.13</b>    | Minority interest                     | 0.0            | 0.0            | 0.0            | 0.0            |
| <b>EPS (diluted, pre-exception) (\$)</b>  | <b>1.69</b>    | <b>1.27</b>    | <b>1.62</b>    | <b>2.13</b>    | <b>Total liabilities &amp; equity</b> | <b>7,869.4</b> | <b>8,291.1</b> | <b>8,697.3</b> | <b>9,311.4</b> |
| <b>EPS (basic, post-exception) (\$)</b>   | <b>1.39</b>    | <b>1.27</b>    | <b>1.64</b>    | <b>2.13</b>    | <b>Additional financials</b>          | <b>12/08</b>   | <b>12/09E</b>  | <b>12/10E</b>  | <b>12/11E</b>  |
| <b>EPS (diluted, post-exception) (\$)</b> | <b>1.39</b>    | <b>1.27</b>    | <b>1.64</b>    | <b>2.13</b>    | Net debt/equity (%)                   | 121.7          | 111.6          | 110.9          | 95.7           |
| Common dividends paid                     | (172.0)        | (106.8)        | (107.3)        | (120.2)        | Interest cover (X)                    | 3.3            | 2.1            | 2.5            | 3.0            |
| DPS (\$)                                  | 1.66           | 0.83           | 0.83           | 0.85           | Inventory days                        | 55.7           | 104.8          | 102.9          | 100.9          |
| Dividend payout ratio (%)                 | 98.3           | 65.5           | 51.2           | 39.8           | Receivable days                       | 55.6           | 39.6           | 37.0           | 34.2           |
| <b>Growth &amp; margins (%)</b>           | <b>12/08</b>   | <b>12/09E</b>  | <b>12/10E</b>  | <b>12/11E</b>  | BVPS (\$)                             | 36.86          | 40.61          | 42.14          | 48.07          |
| Sales growth                              | (32.7)         | 1.7            | 7.0            | 8.1            | ROA (%)                               | 2.7            | 2.0            | 2.5            | 3.4            |
| EBITDA growth                             | 15.0           | 33.0           | 16.0           | 17.7           | CROCI (%)                             | 6.5            | 7.2            | 7.8            | 8.5            |
| EBIT growth                               | 13.9           | 28.5           | 16.1           | 31.0           | <b>Dupont ROE (%)</b>                 | <b>6.6</b>     | <b>5.7</b>     | <b>7.1</b>     | <b>9.0</b>     |
| Net income (pre-exception) growth         | 8.3            | (4.5)          | 28.5           | 44.3           | Margin (%)                            | 7.8            | 7.3            | 8.8            | 11.7           |
| EPS growth                                | (9.0)          | (25.0)         | 28.0           | 31.4           | Turnover (X)                          | 0.3            | 0.3            | 0.3            | 0.3            |
| Gross margin                              | 57.3           | 71.0           | 72.4           | 73.9           | Leverage (X)                          | 3.0            | 2.9            | 2.9            | 2.8            |
| EBITDA margin                             | 26.4           | 34.5           | 37.4           | 40.7           | Free cash flow per share (\$)         | (5.81)         | (2.16)         | 0.06           | (0.34)         |
| EBIT margin                               | 16.6           | 20.9           | 22.7           | 27.6           | Free cash flow yield (%)              | (24.4)         | (15.9)         | 0.5            | (2.5)          |
| <b>Cash flow statement (\$ mn)</b>        | <b>12/08</b>   | <b>12/09E</b>  | <b>12/10E</b>  | <b>12/11E</b>  |                                       |                |                |                |                |
| Net income                                | 154.5          | 165.0          | 211.1          | 303.9          |                                       |                |                |                |                |
| D&A add-back (incl. ESO)                  | 249.1          | 326.4          | 373.9          | 363.5          |                                       |                |                |                |                |
| Minority interest add-back                | 0.0            | 0.0            | 0.0            | 0.0            |                                       |                |                |                |                |
| Net (inc)/dec working capital             | 0.0            | 0.0            | 0.0            | 0.0            |                                       |                |                |                |                |
| Other operating cash flow                 | 34.3           | 80.0           | 100.0          | 140.0          |                                       |                |                |                |                |
| <b>Cash flow from operations</b>          | <b>437.9</b>   | <b>571.4</b>   | <b>685.1</b>   | <b>807.4</b>   |                                       |                |                |                |                |
| Capital expenditures                      | (1,024.9)      | (849.3)        | (676.9)        | (856.1)        |                                       |                |                |                |                |
| Acquisitions                              | 0.0            | 0.0            | 0.0            | 0.0            |                                       |                |                |                |                |
| Divestitures                              | 0.0            | 0.0            | 0.0            | 0.0            |                                       |                |                |                |                |
| Others                                    | 445.9          | 153.0          | 0.0            | 0.0            |                                       |                |                |                |                |
| <b>Cash flow from investing</b>           | <b>(579.0)</b> | <b>(696.3)</b> | <b>(676.9)</b> | <b>(856.1)</b> |                                       |                |                |                |                |
| Dividends paid (common & pref)            | (172.0)        | (106.8)        | (107.3)        | (120.2)        |                                       |                |                |                |                |
| Inc/(dec) in debt                         | 311.9          | 56.5           | 175.0          | 38.0           |                                       |                |                |                |                |
| Other financing cash flows                | (4.8)          | 201.5          | 1.7            | 226.8          |                                       |                |                |                |                |
| <b>Cash flow from financing</b>           | <b>135.1</b>   | <b>151.2</b>   | <b>69.4</b>    | <b>144.6</b>   |                                       |                |                |                |                |
| <b>Total cash flow</b>                    | <b>(6.0)</b>   | <b>26.3</b>    | <b>77.6</b>    | <b>96.0</b>    |                                       |                |                |                |                |

Note: Last actual year may include reported and estimated data.  
Source: Company data, Goldman Sachs Research estimates.

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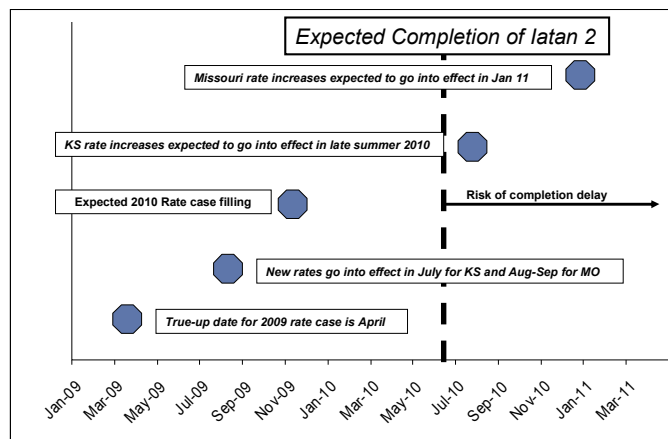
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# Rate case timing and regulatory lag drive utility under-earning

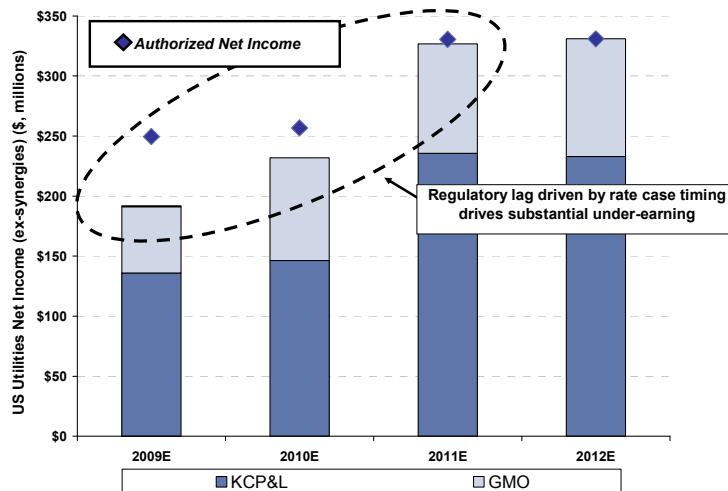
**The construction schedule for the Iatan 2 coal plant partially drives GXP's rate case timing, creating regulatory lag.** Examining the current rate cases on file for KCP&L and GMO, the regulatory calendar allows for a true-up date in April 2009, with new rates going into effect for Kansas in July 2009 and for Missouri in August-September 2009. Cases filed in 4Q2009 that will include the new Iatan 2 coal plant in the utility rate base will go into effect in Kansas in July 2010 and Missouri in January 2011. With the current filing schedule, regulatory lag negatively affects earnings levels in 2009-2011, as shown in Exhibit 2 below. Only in 2012 will GXP likely earn at or near its authorized ROE.

**Exhibit 1: Completion of Iatan 2 drives the regulatory calendar**  
delays could exacerbate regulatory lag in 2010 and 2011



Source: Company data, Goldman Sachs Research estimates.

**Exhibit 2: Regulatory lag drives under-earning at the utility subsidiaries**  
authorized versus estimated net income



Source: Goldman Sachs Research estimates.

**Downside risk exists to our 2011 estimate exists, if construction issues delay completion of latan 2.** Regulations, especially in Missouri, prohibit earning on new generation not “placed in service” creating regulatory lag for GXP before it can recover and earn on investment in the latan 2 plant. Any significant delays in the construction process would “push out” rate case timing and revenue increases. While we assume modest construction cost over-runs on the remaining portion of the project, likely announced in the coming months, we do not forecast major schedule delays, although we admit uncertainty on timing. We expect incremental updates on timing of project completion on the 1Q2009 earnings call in late April/early May 2009.

## Financing needs remain, but reduced given the dividend cut

**Decreasing the dividend reduces, but does not eliminate, equity financing needs.** We expect GXP will issue about \$200 mn of equity in 2009 and, because GXP’s “DRIP-like” facility only allows for distribution of 8 mn shares, we are forecasting a secondary offering in 2Q2009. We are updating our estimates to reflect the secondary issue, whereas our previous estimates included an equity issuance by the company’s “DRIP-like” facility. We recommend investors wait for this potential negative catalyst, although we recognize the shares have already underperformed significantly and screen better on more normalized earnings power.

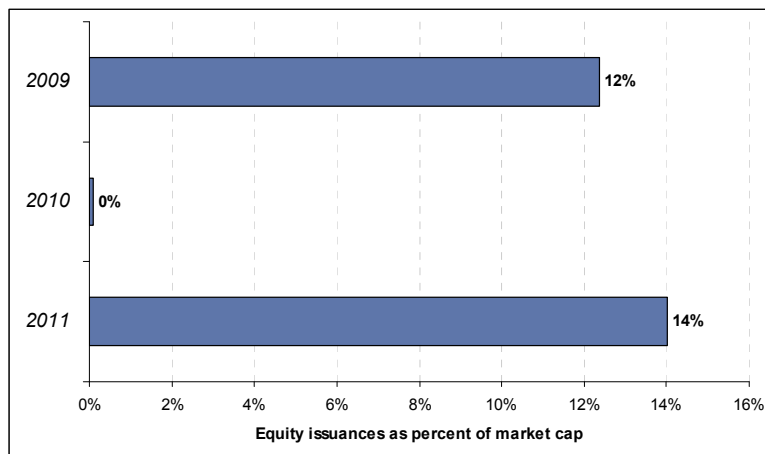
**Exhibit 3: Old versus new estimates**

|       | EPS    |        |        | EBITDA(\$mn) |       |        |
|-------|--------|--------|--------|--------------|-------|--------|
|       | Old    | New    | % chg. | Old          | New   | % chg. |
| 2009E | \$1.31 | \$1.27 | -4%    | 779          | 770   | -1%    |
| 2010E | \$1.65 | \$1.64 | -1%    | 894          | 893   | 0%     |
| 2011E | \$2.12 | \$2.13 | 0%     | 1,046        | 1,051 | 0%     |
| 2012E | \$2.26 | \$2.26 | 0%     | 1,044        | 1,049 | 0%     |

Source: Goldman Sachs Research estimates.

**Exhibit 4: Significant near term financing needs exist for GXP**

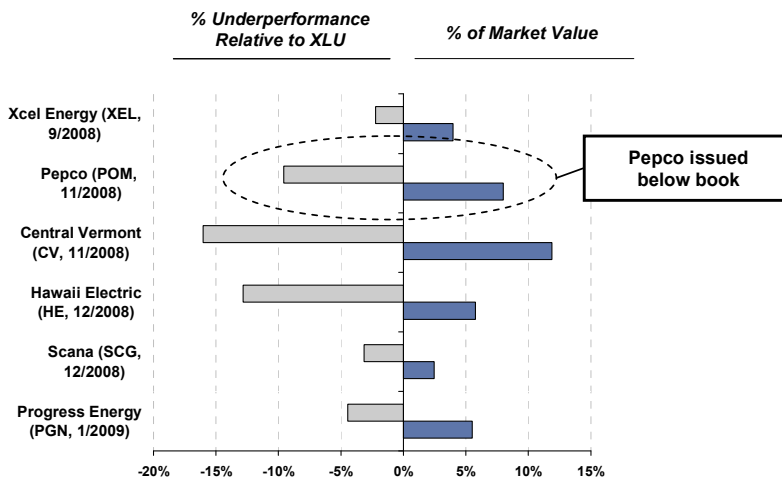
issuance of debt and equity in 2009 could remove possible overhang and unlock long term value



Source: Goldman Sachs Research estimates.

**In the past six months, Regulated Utilities issuing equity at or below book value underperformed by about 5% to 15%.** In the near term, GXP faces a similar risk of underperformance, magnified by the issuance of shares well below their book value of \$21, creating near-term downside risk. GXP's upcoming equity issuance would likely remove the overhang from the stock, allowing investors to look through to the company's long-term earnings potential and providing an even more attractive entry point for potential buyers.

**Exhibit 5: Share price performance of companies issuing equity in the last six months**  
underperformance of GXP shares could make for an attractive entry point



Source: Bloomberg, Goldman Sachs Research estimates.

## Near term valuation screens in line, but longer-term earnings and multiple comparisons appear more attractive

**GXP screens in line on near term earnings, but more normalized utility earnings in 2012 highlight upside for patient investors.** The overhang of equity issuances, combined with the negative earnings impact caused by regulatory lag, drive our Neutral rating on GXP, even though longer-term earnings power highlights potential for the shares to outperform in late 2009/early 2010, after equity issuances. On near-term metrics, GXP trades at 10.7X/8.3X earnings for 2009E/2010E versus peer levels closer to 11.6X/10.0X, while at an even greater discount on 2011/2012 estimates.

**Exhibit 6: Regulated Utility EPS and P/E multiples**

| Target Price and EPS Summary                   |        |                |              |                   |                                 |        |        |        |                                   |       |       |       |                |       |      |      |
|--|--------|----------------|--------------|-------------------|---------------------------------|--------|--------|--------|-----------------------------------|-------|-------|-------|----------------|-------|------|------|
| Ticker   | Rating | Close 03/01/09 | Price Target | Tot Ret to Target | EPS Estimates                   |        |        |        | P/E Multiples                     |       |       |       | Dividend Yield |       |      |      |
|  |        |                |              |                   | 2009                            | 2010   | 2011   | 2012   | 2009                              | 2010  | 2011  | 2012  |                |       |      |      |
| <b>Regulated Utilities</b>                     |        |                |              |                   |                                 |        |        |        |                                   |       |       |       |                |       |      |      |
| <i>Large-Cap</i>                               |        |                |              |                   |                                 |        |        |        |                                   |       |       |       |                |       |      |      |
| American Elec Power                            | AEP    | Buy            | \$28.05      | \$32              | 20%                             | \$3.07 | \$3.23 | \$3.63 | \$3.56                            | 9.2x  | 8.7x  | 7.7x  | 7.9x           | 5.8%  |      |      |
| Duke Energy                                    | DUK    | Neutral        | \$13.47      | \$15              | 18%                             | \$1.17 | \$1.38 | \$1.48 | \$1.56                            | 11.5x | 9.7x  | 9.1x  | 8.6x           | 6.8%  |      |      |
| Consolidated Edison                            | ED     | Sell           | \$36.21      | \$34              | 0%                              | \$3.30 | \$3.37 | \$3.46 | \$3.58                            | 11.0x | 10.8x | 10.5x | 10.1x          | 6.5%  |      |      |
| PG&E   | PCG    | Neutral        | \$38.22      | \$33              | -10%                            | \$3.09 | \$3.24 | \$3.52 | \$3.67                            | 12.4x | 11.8x | 10.9x | 10.4x          | 4.1%  |      |      |
| Progress Energy                                | PGN    | Neutral        | \$35.42      | \$36              | 9%                              | \$2.79 | \$3.01 | \$3.18 | \$3.64                            | 12.7x | 11.8x | 11.1x | 9.7x           | 6.9%  |      |      |
|  |        |                |              |                   | <i>Large-Cap Mean</i>           |        |        |        | <i>Large-Cap Median</i>           |       |       |       |                |       |      |      |
|  |        |                |              |                   | 7%                              |        |        |        | 11.3x                             |       |       |       | 10.6x          | 9.9x  | 9.4x | 6.0% |
|  |        |                |              |                   | 9%                              |        |        |        | 11.5x                             |       |       |       | 10.8x          | 10.5x | 9.7x | 6.5% |
| <i>Mid &amp; Small-Cap Regulated Utilities</i> |        |                |              |                   |                                 |        |        |        |                                   |       |       |       |                |       |      |      |
| Cleco  | CNL    | Neutral        | \$20.52      | \$24              | 21%                             | \$1.50 | \$2.27 | \$2.44 | \$2.59                            | 13.7x | 9.0x  | 8.4x  | 7.9x           | 4.4%  |      |      |
| El Paso Electric                               | EE     | Buy            | \$14.13      | \$19              | 34%                             | \$1.33 | \$1.51 | \$2.15 | \$2.27                            | 10.6x | 9.3x  | 6.6x  | 6.2x           | 0.0%  |      |      |
| Great Plains Energy                            | GXP    | Neutral        | \$13.54      | \$19              | 46%                             | \$1.27 | \$1.64 | \$2.13 | \$2.26                            | 10.7x | 8.3x  | 6.4x  | 6.0x           | 6.1%  |      |      |
| NSTAR  | NST    | Sell           | \$32.17      | \$26              | -15%                            | \$2.20 | \$2.26 | \$2.49 | \$2.67                            | 14.6x | 14.2x | 12.9x | 12.0x          | 4.4%  |      |      |
| Northeast Utilities                            | NU     | Neutral        | \$21.91      | \$23              | 9%                              | \$1.56 | \$1.95 | \$1.86 | \$2.46                            | 14.0x | 11.3x | 11.8x | 8.9x           | 3.9%  |      |      |
| NV Energy                                      | NVE    | Buy            | \$9.27       | \$12              | 34%                             | \$0.87 | \$1.29 | \$1.38 | \$1.40                            | 10.7x | 7.2x  | 6.7x  | 6.6x           | 4.3%  |      |      |
| Portland General Electric                      | POR    | Neutral        | \$16.42      | \$20              | 28%                             | \$1.80 | \$1.85 | \$2.15 | \$2.22                            | 9.1x  | 8.9x  | 7.6x  | 7.4x           | 6.0%  |      |      |
| SCANA Corporation                              | SCG    | Sell           | \$30.13      | \$32              | 12%                             | \$2.73 | \$3.11 | \$3.19 | \$3.38                            | 11.0x | 9.7x  | 9.4x  | 8.9x           | 6.1%  |      |      |
| Wisconsin Energy                               | WEC    | Neutral        | \$39.82      | \$42              | 8%                              | \$2.94 | \$4.06 | \$4.56 | \$4.62                            | 13.5x | 9.8x  | 8.7x  | 8.6x           | 2.7%  |      |      |
| Westar Energy                                  | WR     | Neutral        | \$16.90      | \$20              | 25%                             | \$1.80 | \$1.77 | \$2.19 | \$2.32                            | 9.4x  | 9.5x  | 7.7x  | 7.3x           | 6.9%  |      |      |
|  |        |                |              |                   | <i>Small / Mid Cap Mean</i>     |        |        |        | <i>Small / Mid Cap Median</i>     |       |       |       |                |       |      |      |
|  |        |                |              |                   | 20%                             |        |        |        | 11.7x                             |       |       |       | 9.7x           | 8.6x  | 8.0x | 4.5% |
|  |        |                |              |                   | 23%                             |        |        |        | 10.9x                             |       |       |       | 9.4x           | 8.1x  | 7.7x | 4.4% |
|  |        |                |              |                   | <i>Regulated Utilities Mean</i> |        |        |        | <i>Regulated Utilities Median</i> |       |       |       |                |       |      |      |
|  |        |                |              |                   | 16%                             |        |        |        | 11.6x                             |       |       |       | 10.0x          | 9.0x  | 8.4x | 5.0% |
|  |        |                |              |                   | 18%                             |        |        |        | 11.0x                             |       |       |       | 9.7x           | 8.7x  | 8.6x | 5.8% |

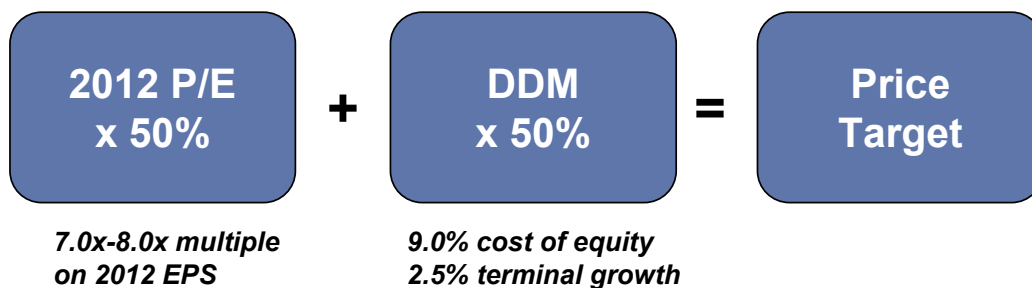
For methodology and risks associated with our price targets, please see our previously published research. For important disclosures, please go to <http://www.gs.com/research/hedge.html>.

Source: Goldman Sachs Research estimates.

**We maintain our 12-month price target of \$19 utilizing our DDM and P/E multiple methodology, highlighting significant longer-term upside.** As with all Regulated Utilities, for valuation of GXP, we continue to employ both DDM analysis and PE multiple screens to set target prices. As outlined in our February 25 note, "Returning to Center Court: Financing needs outweigh LT valuations," we employ a 50/50 weighting of P/E multiple valuations, assuming an 8.0X multiple on 2012 more normalized estimates. We apply a 7.0X multiple for companies, such as GXP, that we forecast near-term equity issuances, and a dividend discount model that incorporates a 9.0% cost of equity and 2.5% terminal growth rate. Our DDM analysis assumes a 75% payout ratio in the terminal year for all companies to create an "apples to apples" comparison.

**Exhibit 7: Goldman Sachs valuation methodology for Regulated Utilities**

GXP's financing needs imply a 7.0X P/E multiple on 2012 earnings



Source: Goldman Sachs Research estimates.

**We remain Neutral rated on GXP, due to the overhang of their large near-term financing needs, although significant long-term upside exists.** Given normalized earnings power, investors may consider investing in GXP at current prices, although we believe the upcoming issuances continue to present an overhang on the shares and may provide a better entry point.

**Exhibit 8: Price target analysis of small and mid-cap Regulated Utilities**

GXP screens attractive on our analysis with 46% return potential to our 12-month price target

|                                   | Ticker | Rating  | 3/01 Close | DDM Value | Current Yield | Total Return, DDM Only | 2012 EPS | Multiple Applied | P/E-Based Value | Total Return, P/E Only | 12-month Target Price | Total Return to 12-Month Target |
|-----------------------------------|--------|---------|------------|-----------|---------------|------------------------|----------|------------------|-----------------|------------------------|-----------------------|---------------------------------|
| <b>Large-Cap</b>                  |        |         |            |           |               |                        |          |                  |                 |                        |                       |                                 |
| American Electric Power           | AEP    | Buy     | \$28.05    | \$37      | 5.8%          | 36%                    | \$3.56   | 8.0x             | \$28            | 7%                     | \$32                  | 20%                             |
| Consolidated Edison               | ED     | Sell    | \$36.21    | \$39      | 6.5%          | 13%                    | \$3.58   | 8.0x             | \$29            | -15%                   | \$34                  | 0%                              |
| Duke Energy                       | DUK    | Neutral | \$13.47    | \$17      | 6.8%          | 32%                    | \$1.56   | 8.0x             | \$12            | -1%                    | \$15                  | 18%                             |
| PG&E                              | PCG    | Neutral | \$38.22    | \$38      | 4.1%          | 3%                     | \$3.67   | 8.0x             | \$29            | -19%                   | \$33                  | -10%                            |
| Progress Energy                   | PGN    | Neutral | \$35.42    | \$42      | 6.9%          | 25%                    | \$3.64   | 8.0x             | \$29            | -11%                   | \$36                  | 9%                              |
| <i>Large-Cap Mean</i>             |        |         |            |           | 6.0%          | 22%                    |          |                  |                 | -8%                    |                       | 7%                              |
| <i>Large-Cap Median</i>           |        |         |            |           | 6.5%          | 25%                    |          |                  |                 | -11%                   |                       | 9%                              |
| <b>Mid &amp; Small-Cap</b>        |        |         |            |           |               |                        |          |                  |                 |                        |                       |                                 |
| Cleco                             | CNL    | Neutral | \$20.52    | \$27      | 4.4%          | 35%                    | \$2.59   | 8.0x             | \$21            | 5%                     | \$24                  | 21%                             |
| EI Paso Electric                  | EE     | Buy     | \$14.13    | \$21      | 0.0%          | 45%                    | \$2.27   | 8.0x             | \$18            | 29%                    | \$19                  | 34%                             |
| Great Plains Energy               | GXP    | Neutral | \$13.54    | \$23      | 6.1%          | 73%                    | \$2.26   | 7.0x             | \$16            | 23%                    | \$19                  | 46%                             |
| Northeast Utilities               | NU     | Neutral | \$21.91    | \$26      | 3.9%          | 23%                    | \$2.46   | 8.0x             | \$20            | -6%                    | \$23                  | 9%                              |
| NSTAR                             | NST    | Sell    | \$32.17    | \$31      | 4.4%          | 2%                     | \$2.67   | 8.0x             | \$21            | -29%                   | \$26                  | -15%                            |
| NV Energy                         | NVE    | Buy     | \$9.27     | \$14      | 4.3%          | 57%                    | \$1.40   | 7.0x             | \$10            | 10%                    | \$12                  | 34%                             |
| Portland General                  | POR    | Neutral | \$16.42    | \$23      | 6.0%          | 49%                    | \$2.22   | 7.0x             | \$16            | 0%                     | \$20                  | 28%                             |
| SCANA                             | SCG    | Sell    | \$30.13    | \$36      | 6.1%          | 26%                    | \$3.38   | 8.0x             | \$27            | -4%                    | \$32                  | 12%                             |
| Westar                            | WR     | Neutral | \$16.90    | \$25      | 6.9%          | 52%                    | \$2.32   | 7.0x             | \$16            | 3%                     | \$20                  | 25%                             |
| Wisconsin Energy                  | WEC    | Neutral | \$39.82    | \$47      | 2.7%          | 20%                    | \$4.62   | 8.0x             | \$37            | -5%                    | \$42                  | 8%                              |
| <i>Mid &amp; Small-Cap Mean</i>   |        |         |            |           | 4.5%          | 38%                    |          |                  |                 | 3%                     |                       | 20%                             |
| <i>Mid &amp; Small-Cap Median</i> |        |         |            |           | 4.4%          | 40%                    |          |                  |                 | 2%                     |                       | 23%                             |
| <i>Regulated Utilities Mean</i>   |        |         |            |           | 5.0%          | 33%                    |          |                  |                 | -1%                    |                       | 16%                             |
| <i>Regulated Utilities Median</i> |        |         |            |           | 5.8%          | 32%                    |          |                  |                 | -1%                    |                       | 18%                             |

Source: Goldman Sachs Research estimates.

## Primary catalysts and key risks

Potential catalysts for GXP include the following:

- Completion of 2009 equity issuance, removing the financing overhang from the stock,
- Positive outcomes in key rate case filings in Kansas and Missouri, and
- Positive updates on the latan 2 plant construction process

Key risks for GXP include the following:

- Lower-than-expected authorized level of returns set by state regulators,
- Delays in the construction of the latan 2 coal plant, increasing regulatory lag,
- Higher-than-expected declines in electricity demand, and
- Equity financings above current forecasts.

## Appendix

### Appendix A: Goldman Sachs estimates versus consensus estimates

|  |        | GS EPS estimates versus consensus |             |      |        |             |      |
|--|--------|-----------------------------------|-------------|------|--------|-------------|------|
|  |        | 2009                              |             |      | 2010   |             |      |
|  | Ticker | GS EPS                            | Cons<br>EPS | % Ch | GS EPS | Cons<br>EPS | % Ch |
| <b>Large Cap Regulated Utilities</b>           |        |                                   |             |      |        |             |      |
| American Elec Power                            | AEP    | \$3.07                            | \$3.19      | -4%  | \$3.23 | \$3.40      | -5%  |
| Duke Energy                                    | DUK    | \$1.17                            | \$1.22      | -4%  | \$1.38 | \$1.31      | 6%   |
| Consolidated Edison                            | ED     | \$3.30                            | \$3.20      | 3%   | \$3.37 | \$3.35      | 1%   |
| PG&E   | PCG    | \$3.09                            | \$3.18      | -3%  | \$3.24 | \$3.36      | -4%  |
| Progress Energy                                | PGN    | \$2.79                            | \$3.02      | -8%  | \$3.01 | \$3.19      | -6%  |
| <b>Large Cap Average</b>                       |        |                                   |             | -3%  | -2%    |             |      |
| <b>Small &amp; Mid Cap Regulated Utilities</b> |        |                                   |             |      |        |             |      |
| Cleco  | CNL    | \$1.50                            | \$1.82      | -18% | \$2.27 | \$2.19      | 4%   |
| El Paso Electric                               | EE     | \$1.33                            | \$1.46      | -9%  | \$1.51 | \$1.76      | -14% |
| Great Plains Energy                            | GXP    | \$1.27                            | \$1.34      | -5%  | \$1.64 | \$1.53      | 7%   |
| NSTAR  | NST    | \$2.20                            | \$2.35      | -7%  | \$2.26 | \$2.49      | -9%  |
| Northeast Utilities                            | NU     | \$1.56                            | \$1.87      | -17% | \$1.95 | \$2.06      | -6%  |
| Portland General Electric                      | POR    | \$1.80                            | \$1.85      | -3%  | \$1.85 | \$1.93      | -4%  |
| SCANA Corporation                              | SCG    | \$2.73                            | \$2.82      | -3%  | \$3.11 | \$3.07      | 1%   |
| NV Energy                                      | NVE    | \$0.87                            | \$0.98      | -11% | \$1.29 | \$1.19      | 8%   |
| Wisconsin Energy                               | WEC    | \$2.94                            | \$3.09      | -5%  | \$4.06 | \$3.74      | 8%   |
| Westar Energy                                  | WR     | \$1.80                            | \$1.83      | -2%  | \$1.77 | \$1.89      | -6%  |
| <b>Small &amp; Mid Cap Average</b>             |        |                                   |             | -8%  | -1%    |             |      |

Source: Goldman Sachs Research estimates, FactSet.



## Reg AC

I, Michael Lapedes, hereby certify that all of the views expressed in this report accurately reflect my personal views about the subject company or companies and its or their securities. I also certify that no part of my compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in this report.

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The Goldman Sachs Investment Profile provides investment context for a security by comparing key attributes of that security to its peer group and market. The four key attributes depicted are: growth, returns, multiple and volatility. Growth, returns and multiple are indexed based on composites of several methodologies to determine the stocks percentile ranking within the region's coverage universe.

The precise calculation of each metric may vary depending on the fiscal year, industry and region but the standard approach is as follows:

**Growth** is a composite of next year's estimate over current year's estimate, e.g. EPS, EBITDA, Revenue. **Return** is a year one prospective aggregate of various return on capital measures, e.g. CROCI, ROACE, and ROE. **Multiple** is a composite of one-year forward valuation ratios, e.g. P/E, dividend yield, EV/FCF, EV/EBITDA, EV/DACF, Price/Book. **Volatility** is measured as trailing twelve-month volatility adjusted for dividends.

## Quantum

Quantum is Goldman Sachs' proprietary database providing access to detailed financial statement histories, forecasts and ratios. It can be used for in-depth analysis of a single company, or to make comparisons between companies in different sectors and markets.

## Disclosures

### Coverage group(s) of stocks by primary analyst(s)

Michael Lapedes: America-Diversified Utilities, America-Independent Power Producers, America-Regulated Utilities.

America-Diversified Utilities: Ameren Corp., Edison International, Entergy Corp., Exelon Corp., Sempra Energy, Terna Participacoes S.A..

America-Independent Power Producers: NRG Energy Inc., Ormat Technologies, Inc., Reliant Energy, Inc..

America-Regulated Utilities: AGL Resources Inc., American Electric Power, Atmos Energy Corp., Cleco Corp., Consolidated Edison, Inc., Duke Energy Corporation, El Paso Electric Co., Great Plains Energy Inc., Northeast Utilities, NSTAR, NV Energy, Inc., PG&E Corporation, Portland General Electric Co., Progress Energy Inc., SCANA Corp., Westar Energy Inc., WGL Holdings, Inc., Wisconsin Energy Corp..

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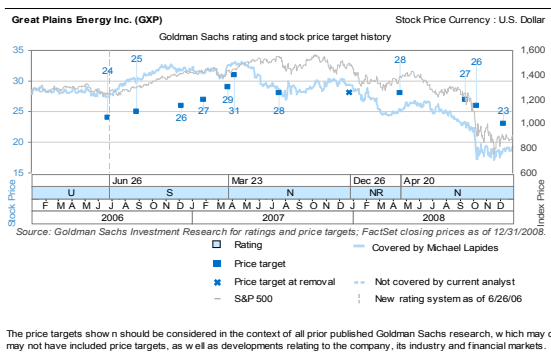
Goldman Sachs Investment Research global coverage universe

|        | Rating Distribution |      |      | Investment Banking Relationships |      |      |
|--------|---------------------|------|------|----------------------------------|------|------|
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| Global | 23%                 | 56%  | 21%  | 54%                              | 48%  | 40%  |

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## Great Plains Energy Incorporated:

*GXP 4Q08: 2009 Outlook and Dividend Cut Disappointing; Maintain Long-Term View*

KeyBanc Capital Markets Inc.  
 Member NYSE/FINRA/SIPC

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 Timothy Yee: (216) 563-2161 — [tyee@keybanccm.com](mailto:tyee@keybanccm.com)

**Investors should assume that we are seeking or will seek investment banking or other business relationships with the company described in this report.**

|                     |           |
|---------------------|-----------|
| Rating              | BUY       |
| Price               | \$19.55   |
| 12-Mo. Price Target | \$20.00   |
| Dividend            | \$0.83    |
| Yield               | 4.2%      |
| 52-Wk. Range        | \$16-\$28 |
| Trading Volume      | 1,082,000 |
| Market Cap. (mm)    | \$2,321.8 |
| Shares Out. (mm)    | 118.76    |
| Book Value/Share    | \$17.81   |

|                     |          |
|---------------------|----------|
| Fiscal Year End     | December |
| 2009E               | \$1.25   |
| 2008A               | \$1.37   |
| 2007A               | \$1.48   |
| 2009 P/E            | 15.6x    |
| 2008 P/E            | 14.3x    |
| First Call 2009E    | \$1.44   |
| First Call 2008A    | \$1.52   |
| Next Quarter        | March    |
| Estimate            | \$0.05   |
| Vs.                 | \$0.09   |
| First Call Estimate | (\$0.03) |

### ACTION STATEMENT

Great Plains Energy (GXP-NYSE) reported disappointing 4Q08 earnings, lowered 2009 earnings guidance due to a further deteriorating economic outlook, and cut its dividend by 50%. Given expectations of a weak open and a longer-term view of the Company when significant construction costs start getting reflected into rate base, we maintain our **BUY** rating and are reducing our price target from \$24 to \$20.

### KEY INVESTMENT POINTS

Yesterday, GXP released 4Q08 earnings after the market closed, a day earlier than previously scheduled. GXP reported disappointing 4Q08 results of \$0.08 vs. \$0.32, below our estimate and First Call consensus of \$0.24 per share.

2009 earnings guidance was lowered to \$1.10-\$1.40 per share (from \$1.30-\$1.60) due to deteriorating economic conditions and increased long-term debt financing costs.

GXP cut its dividend by 50% (indicative annual dividend to \$0.83 from \$1.66 per share). While we view the dividend reduction as disappointing, we believe that shares have been pricing a strong likelihood of a lower dividend.

We are lowering our 2009E to \$1.25 from \$1.45 per share and will further review our estimates and price target after the earnings call scheduled for 9:00 AM EST.

We maintain our **BUY** rating, maintaining a longer-term view of the Company when significant construction costs are reflected in customer rates.

### VALUATION

Based on potential earnings power (post latan 2 construction), which we now conservatively forecast to be approximately \$1.75-\$2.00 per share upon completion of the latan 2 coal plant construction in 2010, we derive our \$20 price target by applying a 2009 group average multiple of 12.2x and discounting back at 8%. Our price target represents a P/E of 16.6x our 2009E. Based on yesterday's closing price and our revised 2009E of \$1.25 per share, GXP shares trade at a P/E of 15.6x, although GXP shares are expected to open significantly lower today.

**FOR IMPORTANT DISCLOSURES AND CERTIFICATIONS, PLEASE REFER TO PAGES 4 - 5 OF THIS NOTE.**

## RISKS

We believe the risks that could impede GXP shares from achieving our price target would be the inability to achieve a fair and timely regulated return on capital investments and the Company's exposure to unplanned outages, which could impact results given the lack of a fuel pass-through mechanism in Missouri (at KCP&L operations; the acquired Aquila/GMO utilities have a fuel clause).

## DISCUSSION

GXP reported 4Q08 results of \$0.08 vs \$0.32, below our estimate and First Call consensus of \$0.24 per share. FY08 results were \$1.37 vs. \$1.48, below our estimate of \$1.55 and First Call consensus of \$1.52 per share. 4Q results were lower primarily due to a decline in wholesale revenues from lower power prices and the latan 1 coal plant outage lasting through the end of the quarter, higher depreciation and amortization expenses, dilution and higher operational costs, partly offset by higher retail rates and higher AFUDC.

2009 earnings guidance was lowered to \$1.10-\$1.40 per share (from \$1.30-\$1.60) due to significantly deteriorating economic conditions in the Company's service territories reducing electricity demand outlook and increased long-term debt financing costs to finish construction on a new coal plant and other environmental projects.

GXP cut its dividend by 50% (indicative annual dividend to \$0.83 from \$1.66 per share). We view the dividend cut as disappointing but given continued uncertainty around a deteriorating market believe management acted prudently.

2009 will see many moving pieces including: a partial year of higher rates from pending rate cases (July in Illinois, August in Missouri), AFUDC earnings related to the 850 MW latan 2, integration of the Aquila acquisition, a difficult economy, expected plant operational improvement after 2008 unplanned outages, an expected equity offering and the assumption of high cost Aquila debt, which cannot be recovered in rates.

GXP is expected to complete the construction of the latan 2 coal plant in fall 2010. The Company will file a rate case in late 2009, timed such that new rates will take effect with plant completion.

We believe investors should maintain a longer-term view of the Company when significant construction costs start getting reflected into rate base later this year and in 2010 and beyond. Given this outlook and expectations of a weak open, we maintain our **BUY** rating.

We believe that post construction of latan 2, GXP will have earnings power of \$1.75-\$2.00 per share. We conservatively base our reduced price target toward the lower end of this range.

## RATE CASE OVERVIEW

On September 5, 2008, GXP filed its rate cases pending in its Kansas and Missouri jurisdictions, including the merged operations of Aquila in Missouri. Recently, Kansas Commission Staff offered a constructive recommendation in our view for a rate increase of \$53.9 million premised on a ROE of 11.4%, rate base of \$1.277 billion and a 50.8% equity layer. The revenue requests and rate case parameters for these cases are outlined below:

|                  | Revenue Request (millions) | Amortiz. Increase (millions) | Rate Base (millions) | Equity Layer | ROE    |
|------------------|----------------------------|------------------------------|----------------------|--------------|--------|
| Aquila           | \$84.4                     | \$0.0                        | \$1,521.8            | 53.82%       | 10.75% |
| KCP&L - Missouri | \$86.4                     | \$15.1                       | \$1,503.1            | 53.82%       | 10.75% |
| KCP&L - Kansas   | \$60.4                     | \$11.2                       | \$1,255.4            | 55.39%       | 10.75% |
|                  | <b>\$231.2</b>             | <b>\$26.3</b>                | <b>\$4,280.3</b>     |              |        |

Kansas rates are expected to go into effect in July 2009, while Missouri rates are expected to become effective in August 2009. These cases are based upon a calendar 2007 test year. In April 2009, the companies will update their rate case filings with October 2008 actual financial results. Any potential settlements are not expected to result in implementation of new rates ahead of the dates above.

**EPS (Net) Summary**

|      | 2007A    | %CHG   | 2008A  | %CHG   | 2009E  | %CHG   |
|------|----------|--------|--------|--------|--------|--------|
| 1Q   | (\$0.05) | NM     | \$0.09 | NM     | \$0.05 | -44.4% |
| 2Q   | \$0.38   | -30.9% | \$0.25 | -34.2% | --     | --     |
| 3Q   | \$0.83   | 15.3%  | \$0.88 | 6.0%   | --     | --     |
| 4Q   | \$0.32   | 3.2%   | \$0.08 | -75.0% | --     | --     |
| YEAR | \$1.48   | -23.3% | \$1.37 | -7.4%  | \$1.25 | -8.8%  |

*Source: KeyBanc Capital Markets Inc. estimates*

Note 1: 2007 Annual: Quarters may not sum due to share count differences. Strategic Energy (discontinued operations in 2Q08) results are excluded from 2007 core earnings for comparison purposes.

Note 2: 2008 Q1: Strategic Energy (discontinued operations in 2Q08) results are excluded from core earnings.

Note 3: 2008 Q3: Aquila merger completed 7/14/08, share dilution effect.

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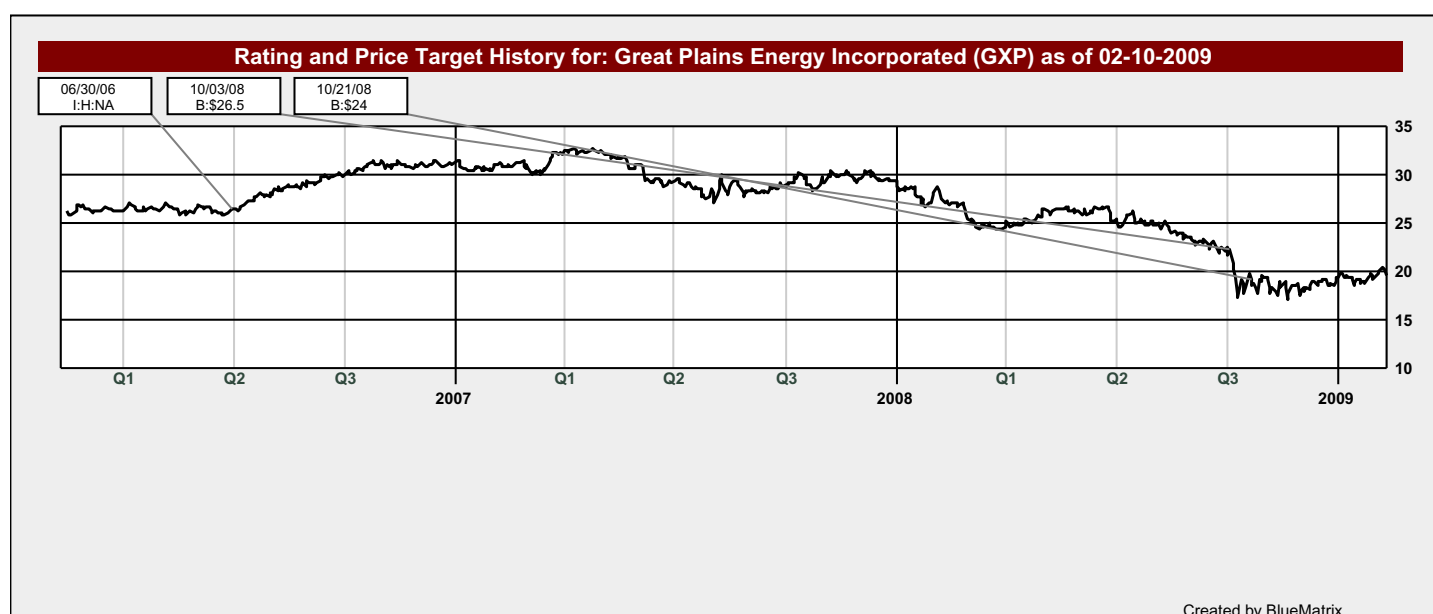
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| Rating   | Count | Percent | IB Serv/Past 12 Mos. |         | Rating      | Count | Percent | IB Serv/Past 12 Mos. |         |
|  |       |         | Count                | Percent |             |       |         | Count                | Percent |
| BUY [BUY]  | 122   | 35.60   | 28                   | 22.95   | BUY [BUY]   | 20    | 37.70   | 13                   | 65.00   |
| HOLD [HOLD]  | 194   | 56.60   | 33                   | 17.01   | HOLD [HOLD] | 32    | 60.40   | 18                   | 56.25   |
| SELL [UND]   | 27    | 7.90    | 0                    | 0.00    | SELL [UND]  | 1     | 1.90    | 0                    | 0.00    |



### **Rating System**

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HOLD - The security is expected to perform in line with general market indices over the next six to 12 months; no buy or sell action is recommended at this time.

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# U.S. Utilities: The Drivers of Returns, 1984-2004

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**AUGUST 2005**

SEE DISCLOSURE APPENDIX OF THIS REPORT FOR  
IMPORTANT DISCLOSURES AND ANALYST CERTIFICATIONS

**SCHEDULE 5-1**

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## Overview

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Over the last 20 years, regulated U.S. electric utilities have achieved remarkably low average EPS growth: 1.1% annually for our sample of 13 continuously regulated electric utilities. The growth of the group's aggregate net income was higher (3.8% per annum), tracking the growth in regulated assets, but was diluted by repeated share issuances. At 1% annual EPS growth, the industry's average payout ratio of 70% and current average P/E multiple of 16x imply prospective returns on regulated utility stocks of 5.4% per annum. Investors seeking higher returns are urged to focus on (i) stocks combining low P/E multiples (14-15x) and high sustainable dividend payout ratios (70-75%), or (ii) well-capitalized utilities with minimal risk of equity dilution and rapid growth in rate base, such as Edison International (rated outperform, target price \$44).

With 16 states having deregulated the generation of electricity, the category "utility" no longer defines a class of stocks with uniform commercial or investment characteristics. Rather, while regulated utilities continue to display the sector's traditionally low volatility of returns, since 2002 deregulated utilities have demonstrated a *higher* volatility of returns than the broader market. This marked difference in the betas of regulated and deregulated utility stocks persuades us that including both categories of stocks in a single asset class is no longer appropriate. This analysis, therefore, will focus solely on regulated utilities.

Over the past 20 years, our sample of 13 regulated utilities experienced a compound annual growth rate (CAGR) in aggregate earnings of 3.8%. In exploring the drivers of earnings growth, we found that the aggregate earnings of our sample group could be predicted as a linear function of total invested capital with an R-squared of 90%. In turn, the best predictor of invested capital appears to be demand growth; a correlation analysis of MWh sold with total invested capital also produces an R-squared of 90%.

Over the same period, however, the compound annual growth in earnings per share for our sample group was only 1.1%. This marked dilution of earnings on a per-share basis reflects the deleveraging of utilities' balance sheets over the last 20 years. In 1984, our 13 sample utilities had an aggregate equity-to-total capital ratio of 32%; by 2004, equity had increased to 38% of total capital. Thus, while strong growth in invested capital drove a commensurate increase in aggregate earnings over the last 20 years, the benefit to EPS was largely diluted away through repeated issues of stock.

If demand growth, forecast at 2% per annum, continues to drive the expansion of invested capital and thus growth in regulated earnings, regulated utilities, in the absence of further equity dilution, can be expected to grow EPS at 2% annually. Given the industry average dividend payout ratio of 70% and P/E multiple of 16x, expected returns are thus in the area of 6.4%. Investors seeking higher returns must find stocks valued significantly below or growing significantly above the industry average. Thus, utilities projected to grow 2% annually while sustaining a dividend payout ratio of 70% will realize returns in excess of 7% only if their earnings multiples are 14x or below. Alternatively, utilities valued at 16 times earnings must realize long-term earnings growth of 3% or more, while maintaining dividend payout ratios of 65% or higher, to offer equity investors returns in excess of 7%.



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## Defining Regulated Utilities

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With 16 states having deregulated the generation of electricity to various degrees, the category "utility" no longer defines an asset class with uniform investment characteristics. Our research indicates that while regulated utilities continue to display an investment characteristic long associated with the sector — i.e., much lower volatility than the equity market generally — deregulated utilities since 2002 have demonstrated a *higher* volatility of returns than the broader market. It is this marked difference in the betas of regulated and deregulated utility stocks that persuades us that including both categories of stocks in a single asset class is no longer appropriate. Referring to regulated and deregulated power companies as "utilities," with the term's historical connotation of steady income and price stability, is misleading, in our view. In the first chapter of this *Whitebook*, therefore, we will distinguish between the two categories of stocks, and in the remainder of our discussion will focus on regulated utilities only.

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### A Modified Capital Asset Pricing Model

We have applied regression analysis of market data from the last three and a half years to determine the correlation of monthly utility returns in excess of market returns with two independent variables: the equity market risk premium (monthly equity market returns in excess of Treasury bond yields) and the credit risk premium (the excess of corporate bond yields over Treasury bond yields). This allowed us to derive a modified capital asset pricing model (CAPM) that predicts the excess return of utility stocks as a function of the market premium and credit spread:

$$R - R_f = \beta(R_m - R_f) + \gamma DEF$$

Where:

$R$  = total returns for a market-cap-weighted portfolio of utilities;

$R_f$  = the risk-free rate as measured by the yield on the one-month Treasury bill;

$R_m$  = total market return; and

$DEF$  = the credit or default risk factor, as measured by the difference between the yield on the Moody's Corporate Bond Index and the 10-year Treasury bond.

Since monthly utility returns and market returns both exhibit a great deal of variability, we use trailing-six-month averages for all of the variables.

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### Diverging Betas for Regulated and Unregulated Utilities

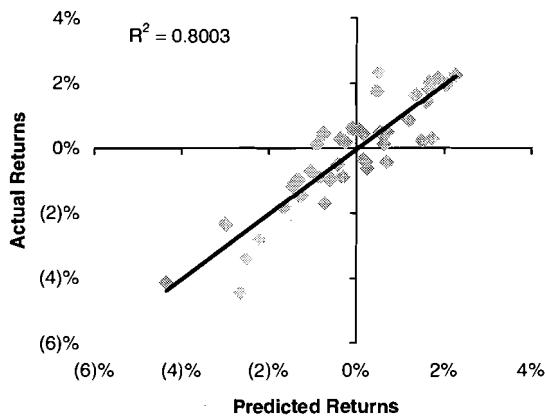
In the second stage of our analysis, we divided the universe of utility stocks into two groups, regulated and deregulated, and again used regression analysis to derive modified CAPM equations specific to each of the two groups. We defined regulated utilities as those firms with more than 70% of their operations subject to rate regulation on a cost-of-service basis and deregulated utilities as those firms with less than 70% of their operations subject to regulation (or, put another way, with more than 30% of their operations conducted in unregulated markets). In determining the specific category for each utility, we followed the classification system developed by the Cambridge Energy Research Associates (CERA). This research institute divides the utility sector into the following five groups:

*Utility* – at least 90% of the business is regulated;  
*Utility Plus* – 70-90% of the business is regulated;  
*Hybrid* – utility and non-utility businesses each account for at least 30% of the business;  
*Competitive* – at least 70% of the business is deregulated; and  
*Diversified* – less than 50% of the business is in energy industries.

For companies not included in CERA's list, we determined the utility's classification based on the same criteria. According to the definitions above, 31% of publicly traded U.S. electric utilities are predominantly regulated, 30% are "utility plus" companies with 10-30% of their business being competitive, 25% are hybrids with 30% or more of their business competitive, 11% are predominantly competitive, and 3% are diversified with less than 50% of the business in energy industries. In testing our modified CAPM, we defined regulated utilities as those in the "utility" and "utility plus" categories. Deregulated utilities consist of all those designated as hybrid, competitive or diversified.

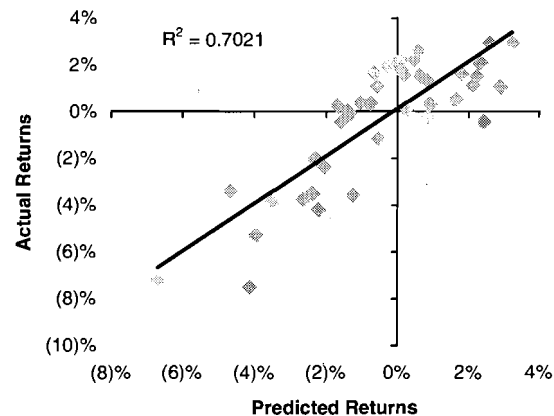
Our modified CAPM predicts excess returns by the regulated utilities since 2002 with considerable accuracy, explaining 80% of the variance in excess returns (see Exhibit 1). The model is slightly less effective for deregulated utilities but still explains 69% of the variance in returns (see Exhibit 2).

**Exhibit 1 Regulated Utilities: Actual vs. Predicted Returns, 2002-05**



Source: FactSet, Bloomberg L.P. and Bernstein analysis.

**Exhibit 2 Deregulated Utilities: Actual vs. Predicted Returns, 2002-05**



Source: FactSet, Bloomberg L.P. and Bernstein analysis.

Importantly, we found that the coefficients for the two variables in our modified CAPM differ significantly between regulated and deregulated utilities (see Exhibit 3). The coefficient of the market risk premium, which is essentially a beta adjusted for credit risk, is 0.72 for regulated utilities, while for deregulated utilities it was 1.08. Regulated utilities are thus less sensitive to the market premium than equities generally, while deregulated utilities are slightly more sensitive than the broader market. Similarly, for regulated utilities, the coefficient of the credit risk premium is 3.35, while for deregulated utilities it is 4.15. Regulated utilities are thus less sensitive to the market's pricing of credit risk than are deregulated utilities.



**Exhibit 3****Modified CAPM Coefficients per Regulated vs. Deregulated Utilities**

|                | Regulated | Deregulated |
|----------------|-----------|-------------|
| Market Premium | 0.72      | 1.08        |
| t-stat         | 12.61     | 9.49        |
| Credit Risk    | 3.35      | 4.15        |
| t-stat         | 4.63      | 2.87        |

Source: FactSet, Bloomberg L.P. and Bernstein analysis.

**Conclusion**

These results show that while regulated utilities continue to display an investment characteristic long associated with the sector — i.e., much lower volatility than the equity market generally — deregulated utilities since 2002 have demonstrated a higher volatility of returns than the broader market. The marked difference in betas between regulated and deregulated utility stocks suggests that their inclusion in the same asset class is no longer appropriate. The remainder of our analysis, therefore, focuses exclusively on the category of regulated utilities.

## Utility Earnings Within a Regulated Framework

### Historical Review of Regulated Utility Performance

Historically, electric utilities in the United States have been regulated monopolies, restricted to the supply of one or at most two products (electricity and gas) within a defined geographic area or service territory. This regulatory paradigm precluded growth through market share gains, new product introduction or geographic expansion. Moreover, as well-run utilities generally enjoyed a return on capital equal to the maximum allowed by their regulators, improvements in the operating performance translated into reductions in rates rather than increased returns to investors. Growth could only come, therefore, through increases in invested capital. These in turn were constrained by the growth in power demand in the utility's service territory.

A regulated utility's accumulated stock of invested capital, or rate base, is the primary determinant of its earnings. Under rate regulation based on cost of service, a utility's allowed revenues are a function of (i) the operating costs incurred by a utility in providing electric service (i.e., fuel, purchased power, operation and maintenance expense, and general and administrative expense); (ii) the capital costs incurred by the utility through its investment in regulated rate base (i.e., depreciation expense and interest on debt); and (iii) the utility's allowed return on equity. Because rates are set at a level designed to generate a revenue stream sufficient to recover both operating and capital costs, the earnings of regulated utilities have historically been highly stable, and can be expressed by the equation:

$$\text{Net Income} = (\text{Allowed ROE} \times \text{Equity}) / (\text{Total Capital} \times \text{Rate Base})$$

As we will see below, regulated returns on invested capital have been relatively stable over the last 20 years, with the result that utilities' regulated earnings have tended to grow in tandem with rate base. Growth in rate base, in turn, has tracked growth in power demand, which over the last 20 years has averaged 2.6% per annum. Over this period, U.S. utilities' regulated returns on equity have tended to fall in the range of 10.75% to 13.00%. The combination of such high rates of return on equity with low rates of demand growth — and thus limited opportunities for investment in rate base — has been reflected in high dividend payout ratios (approximately 75%) and correspondingly low rates of reinvestment. This, in turn, has defined the financial profile of utility stocks as high-yielding, low-growth investments with very stable annual returns.

More than any other category of stock, therefore, regulated utilities have lent themselves to valuation by the application of the Gordon dividend growth model:

$$\text{Price} = (\text{EPS} \times \text{dividend payout ratio}) / (\text{discount rate} - \text{EPS growth rate})$$

Dividing through by EPS, we get:

$$P/E = \text{dividend payout ratio} / (\text{discount rate} - \text{EPS growth rate})$$

We will analyze the historical financial performance of a sample of regulated electric utilities to determine appropriate values for the key variables in the P/E equation: payout ratio, discount rate and rate of dividend growth. These values will then be compared with those implicit in the current valuation of regulated utilities to estimate the likely future returns on shareholders' investments.

### Sample Selection

Exhibit 4 presents a list of U.S. electric utilities whose power generation assets remain subject to rate regulation on a cost-of-service basis. Exhibit 5 presents a subset of these utilities that we have used as a sample group for purposes of our historical statistical analysis. The smaller sample in Exhibit 5 excludes companies that experienced abnormal shocks to their earnings from 1984 to 2004. (For example, the failed deregulation effort in California caused tremendous earnings volatility for companies such as Edison International, Pacific Gas and Electric, and Sierra Pacific Resources.) To reflect the normal historical performance of fully regulated utilities in the absence of such shocks, we excluded companies that experienced a volatility in year-on-year EPS growth greater than  $\pm 60\%$ , as measured by the standard deviation of EPS growth. The exclusion of these companies considerably smoothes the historical series of aggregate earnings and weighted average earnings per share, as can be seen in Exhibits 6 through 9.

#### Exhibit 4 Regulated U.S. Electric Utilities: Market Caps as of December 31, 2004 (\$ million)

|              |                 |
|--------------|-----------------|
| SO           | \$24,865        |
| FPL          | 13,917          |
| PCG          | 13,057          |
| PGN          | 11,174          |
| SCG          | 4,449           |
| MDU          | 3,154           |
| TE           | 3,066           |
| PSD          | 2,467           |
| OGE          | 2,386           |
| HE           | 2,352           |
| PNM          | 1,529           |
| IDA          | 1,291           |
| SRP          | 1,233           |
| BKH          | 1,174           |
| ALE          | 1,091           |
| CNL          | 1,005           |
| ILA          | 892             |
| AVA          | 857             |
| OTTR         | 740             |
| MGEE         | 735             |
| EDE          | 583             |
| GMP          | 148             |
| FPU          | 76              |
| <b>Total</b> | <b>\$92,241</b> |

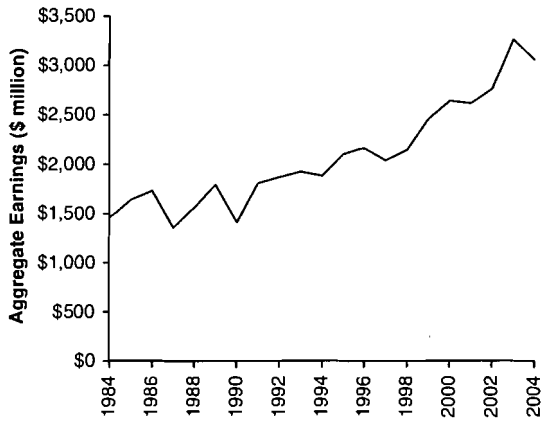
Source: FactSet.

#### Exhibit 5 Sample Group of Regulated Utilities: Market Caps as of December 31, 2004 (\$ million)

|              |                 |
|--------------|-----------------|
| SO           | \$24,865        |
| PGN          | 11,174          |
| MDU          | 3,154           |
| PSD          | 2,467           |
| OGE          | 2,386           |
| HE           | 2,352           |
| IDA          | 1,291           |
| BKH          | 1,174           |
| ALE          | 1,091           |
| OTTR         | 740             |
| MGEE         | 735             |
| EDE          | 583             |
| FPU          | 76              |
| <b>Total</b> | <b>\$52,088</b> |

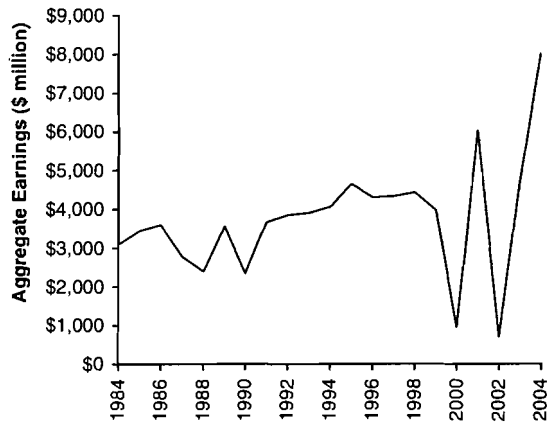
Source: FactSet.

**Exhibit 6 Aggregate Earnings of Sample Group**



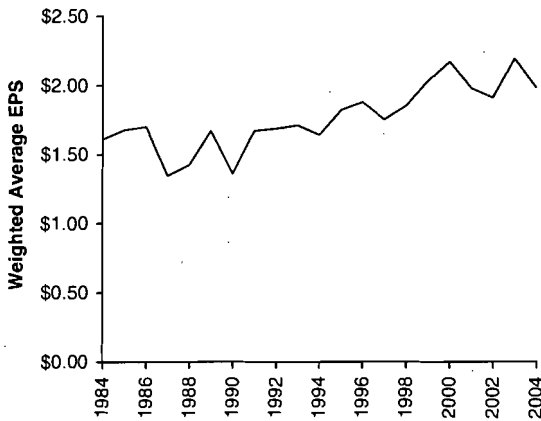
Source: FactSet and Bernstein analysis.

**Exhibit 7 Aggregate Earnings of All Regulated Utilities**



Source: FactSet and Bernstein analysis.

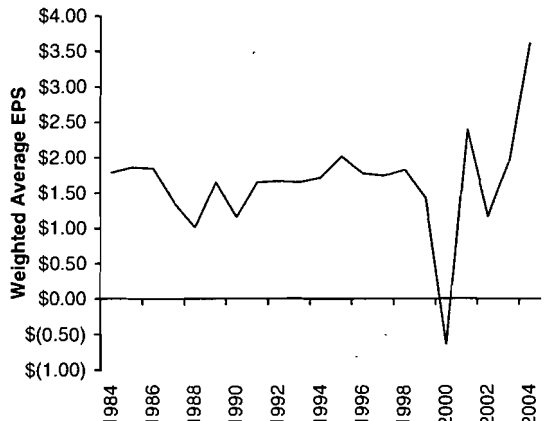
**Exhibit 8 Weighted Average EPS of Sample Group<sup>1</sup>**



<sup>1</sup> Weighted by share of aggregate market cap in 1984.

Source: FactSet and Bernstein analysis.

**Exhibit 9 Weighted Average EPS of All Regulated Utilities<sup>1</sup>**



<sup>1</sup> Weighted by share of aggregate market cap in 1984.

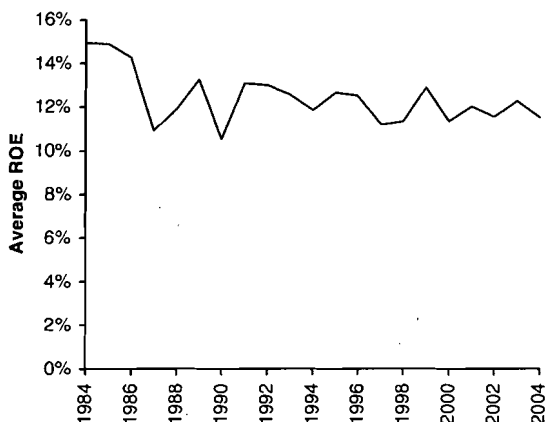
Source: FactSet and Bernstein analysis.

**Determinants of Earnings Growth**

Over the past 20 years, our sample of 13 regulated utilities experienced a compound annual growth rate in aggregate earnings of 3.8%. Over the same period, however, we estimate the compound annual growth in earnings per share for the sample group at 1.1%.<sup>1</sup> Below, we discuss the historical drivers of earnings growth at our sample of regulated utilities, as well as the reasons for EPS growth to lag behind that of aggregate earnings.

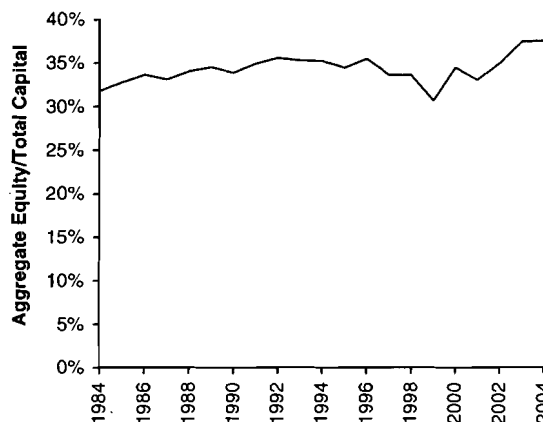
Regulated returns on equity and allowed ratios of equity to total capital have moved in opposite directions over the last 20 years (see Exhibits 10 and 11). Thus, the average ROE of the 13 regulated utilities in our sample declined from 15.0% in 1984 to 11.5% in 2004, while the average ratio of equity to total capital increased from 32% to 38%. The product of the two, representing the ratio of net income to total capital, fell from 4.8% in 1984 to 4.3% in 2004. With return on invested capital falling, it is clear that growth in rate base has been the primary driver of earnings growth at our sample of 13 regulated utilities over the last 20 years.

**Exhibit 10 Aggregate ROE, 1984-2004**



Source: FactSet and Bernstein analysis.

**Exhibit 11 Aggregate Equity to Total Capital Ratio, 1984-2004**



Source: FactSet and Bernstein analysis.

To estimate the aggregate rate base of the utilities of our sample group, we have used as a proxy the total invested capital of these companies as presented in their U.S. GAAP financial statements. Exhibit 12 graphs the tendency for the aggregate earnings of our sample group to track the growth in total capital invested. Exhibit 13 shows the results of a correlation analysis between the two variables at our sample of 13 regulated utilities over the last 20 years. As can be seen there, the aggregate earnings of our sample group can be predicted as a linear function of total invested capital with an R-squared of 90%.

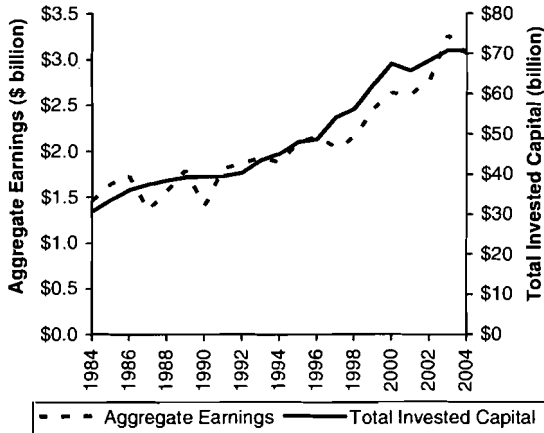
While the expansion of rate base has been the primary driver of earnings growth at our sample of regulated utilities, rate base in turn has tracked the increase in power demand. Exhibit 14 compares the growth in total invested capital of the sample group with the growth in power demand and the consumer price index over the last 20 years. Statistically, the

<sup>1</sup> To estimate the rate of EPS growth for the sample group over the last 20 years, we calculated a weighted average of the EPS of each of the 13 sample companies, with each company's EPS weighted by that company's share of the aggregate market capitalization of the sample in 1984:

$$\text{Aggregate EPS} = \sum_{i=1}^{13} \text{EPS of Company } i \times \frac{\text{1984 Market Capitalization of Company } i}{\text{Total Market Capitalization of all Sample Utilities}}$$

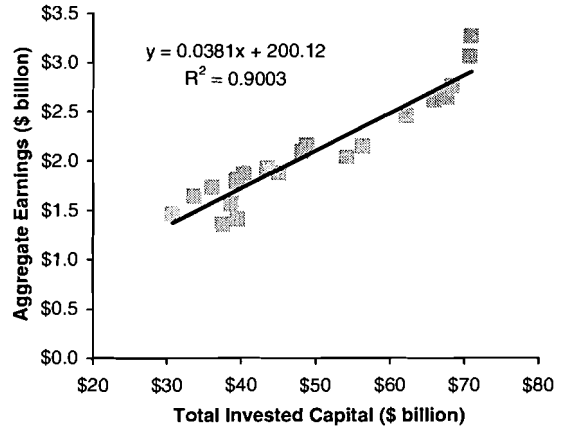
best predictor of invested capital appears to be demand growth; as can be seen in Exhibit 15, a correlation analysis of MWh sold with total invested capital produces an R-squared of 90%. Adding the Consumer Price Index as a second variable in the correlation analysis raises the R-squared even further, but the explanatory power of the CPI variable is dwarfed by that of MWh sales.

**Exhibit 12 Trends in Aggregate Earnings and Total Invested Capital for Our Sample of 13 Regulated Utilities, 1984-2004**



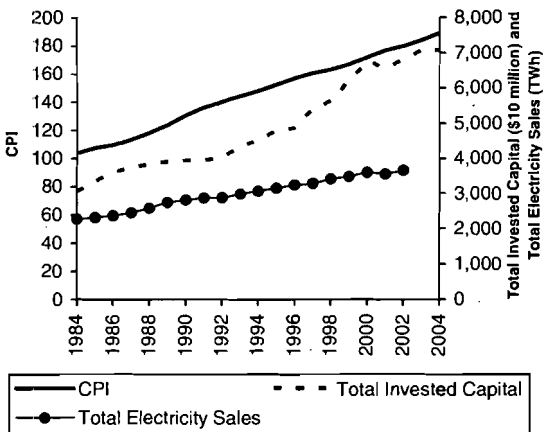
Source: FactSet and Bernstein analysis.

**Exhibit 13 Relationship Between Aggregate Earnings and Total Invested Capital for Our Sample of 13 Regulated Utilities, 1984-2004**



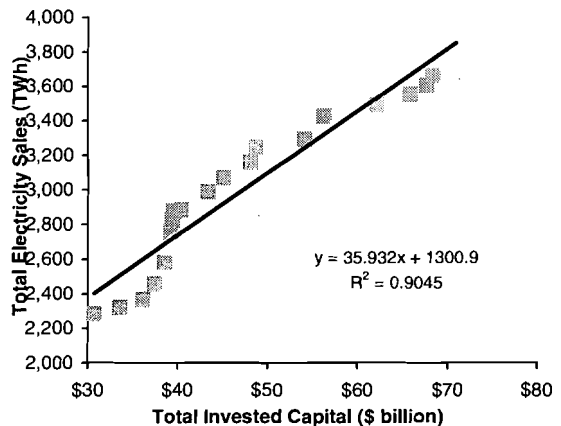
Source: FactSet and Bernstein analysis.

**Exhibit 14 Relationship Between Total Invested Capital, Load Growth and Consumer Price Index**



Source: FactSet and Bernstein analysis.

**Exhibit 15 TWh Sales vs. Total Invested Capital, 1984-2004**



Source: FactSet and Bernstein analysis.

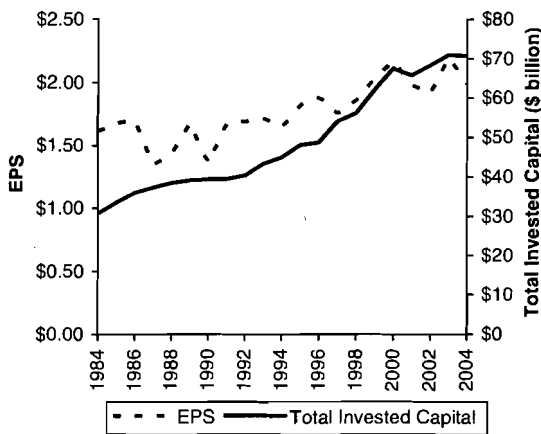
That invested capital should show a higher degree of correlation with MWh of electricity demand than with the aggregate price level points to an important fact of regulated utility economics: the nominal value of utility rate base, and thus of allowed earnings, has no direct link to inflation. In the

United States, the value of historical investment in rate base is not indexed to increases in the price level. If the allowed ROE and equity-to-capital ratios of regulated utilities maintain their historical stability in the future, therefore, the rate of growth in regulated utility earnings will be driven primarily by the expansion of rate base, as incremental capital investments are made to supply increases in power demand. The North American Electric Reliability Council (NERC) forecasts the rate of growth in U.S. electricity demand at 2.0% per annum over the next 10 years.

**Determinants of EPS Growth**

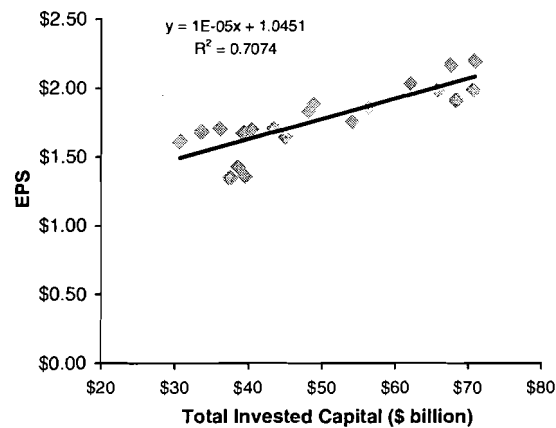
As noted above, EPS growth at our sample of regulated utilities has averaged 1.1% per year over the last 20 years, significantly lagging the 3.8% annual growth in aggregate earnings. The strong tendency for earnings to track total capital invested (illustrated in Exhibit 12) is considerably weakened, therefore, when earnings are expressed on a per-share basis (compare Exhibit 16). Statistically, the weaker link between EPS and invested capital is captured in the correlation analysis in Exhibit 17, where invested capital is found to predict EPS with an R-squared of 71%, in comparison with that in Exhibit 13, where invested capital predicts aggregate earnings with an R-squared of 90%.

**Exhibit 16 Trends in EPS and Total Invested Capital for Our Sample of 13 Regulated Utilities, 1984-2004**



Source: FactSet and Bernstein analysis.

**Exhibit 17 Relationship Between EPS and Total Invested Capital for Our Sample of 13 Regulated Utilities, 1984-2004**



Source: FactSet and Bernstein analysis.

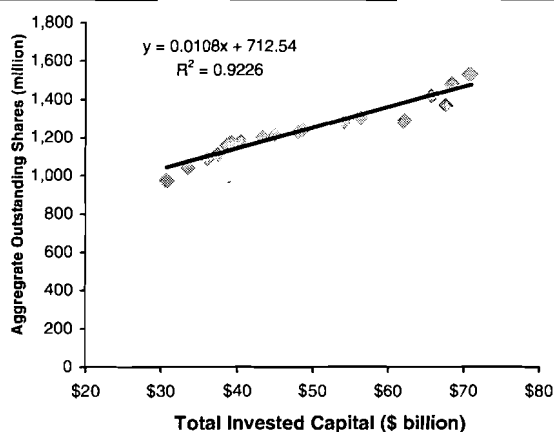
Our analysis suggests two possible explanations for why EPS growth has fallen so far behind aggregate earnings growth over the last 20 years. First, we find a very strong correlation historically between share count and invested capital. As can be seen in Exhibit 18, the shares outstanding of our sample group can be predicted as a linear function of total invested capital with an R-squared of 92%. Thus, while strong growth in invested capital drove a roughly commensurate increase in aggregate earnings over the last 20 years, the benefit to EPS was largely diluted away through repeated issues of stock.

The tendency for share count to rise in direct relation to invested capital could reflect the high dividend payout ratio of regulated utilities, which causes them to rely on external sources of capital to fund growth in rate base. Over the last 20 years, our sample group of regulated utilities paid out

76% of their aggregate earnings as dividends, retaining less than a quarter. In round numbers, the aggregate earnings of the sample utilities over the period totaled \$44 billion, of which \$34 billion were paid out as dividends and only \$10 billion were retained. The increase in the sample group's total invested capital over this period, by contrast, was some \$40 billion. The sample utilities' retained earnings over 1984-2004 were thus equivalent to only 25% of the growth in their total invested capital. At the beginning of the period, by contrast, the sample group had equity equivalent to 32% of total capital invested; without recourse to external sources of equity, therefore, funding the growth of invested capital would have resulted in a significant increase in the utilities' leverage.

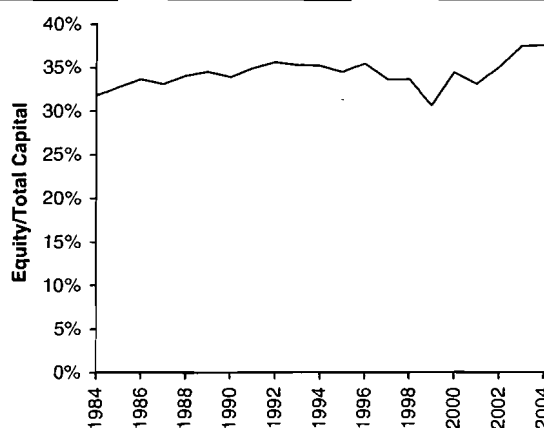
The second contributor to the increase in share count among our sample utilities has been their tendency to reduce leverage over the last 20 years (see Exhibit 19). In 1984, our 13 sample utilities had an aggregate ratio of equity to total capital of 32%; by 2004, they had raised equity to 38% of total capital. To maintain and indeed increase their equity-to-capital ratio, the sample utilities found it necessary to raise some \$6 billion in equity from external sources. This sum was equal to 66% of the book value of the sample utilities' equity at the beginning of the period; the increase in shares outstanding of the sample group from 1984 to 2004 was comparable, at 57%.

**Exhibit 18 Relationship Between Shares Outstanding and Invested Capital, 1984-2004**



Source: FactSet and Bernstein analysis.

**Exhibit 19 Ratio of Equity to Total Capital for Our Sample of 13 Regulated Utilities, 1984-2004**



Source: FactSet and Bernstein analysis.

It would appear, therefore, that the much slower rate of EPS growth among our sample utilities, as compared with the growth in the aggregate earnings of the group over 1984-2004, can be attributed to the interaction of (i) a very high dividend payout ratio; (ii) a significant program of capital expenditure; (iii) the desire to maintain a minimum ratio of equity to total capital, necessitating the periodic issuance of stock to augment the equity funds available from retained earnings; and (iv) a tendency to increase the ratio of equity to total capital over time.



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**Conclusion**

Over the past 20 years, our sample of 13 regulated utilities experienced a compound annual growth rate in aggregate earnings of 3.8%. In exploring the drivers of earnings growth, we found that the aggregate earnings of our sample group could be predicted as a linear function of total invested capital, with an R-squared of 90%. In turn, the best predictor of invested capital appears to be demand growth; a correlation analysis of MWh sold with total invested capital also produces an R-squared of 90%.

Over the same period, however, the compound annual growth in earnings per share for our sample group was only 1.1%. Our analysis suggests two possible explanations for why EPS growth has fallen so far behind aggregate earnings growth over the last 20 years. First, we find a very strong correlation historically between share count and invested capital, possibly reflecting the high dividend payout of regulated utilities and, thus, the limited retained earnings available to fund capital investment. The second contributor to the increase in share count among our sample utilities has been their tendency to reduce leverage over the last 20 years. In 1984, our 13 sample utilities had an aggregate ratio of equity to total capital of 32%; by 2004, they had raised equity to 38% of total capital. Thus, while strong growth in invested capital drove a roughly commensurate increase in aggregate earnings over the last 20 years, the benefit to EPS was largely diluted away through repeated issues of stock.

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## Impact of Future Rate Cases on Allowed ROE and Earnings

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### Relationship Between Interest Rates and Allowed ROE

In the preceding chapter, we noted that the earnings of regulated utilities can be expressed by the equation:

$$\text{Net Income} = (\text{Allowed ROE} \times \text{Equity}) / (\text{Total Capital} \times \text{Rate Base})$$

In analyzing these drivers of regulated utilities' earnings, we found that over the last 20 years, regulated returns on equity and allowed ratios of equity to total capital have moved in opposite directions, such that return on rate base was little changed over the period. Consequently, we found growth in rate base to be the strongest predictor of earnings growth. This chapter will focus more deeply on the determinants of ROE and equity to total capital, as well as the relation of these two earnings drivers to each other.

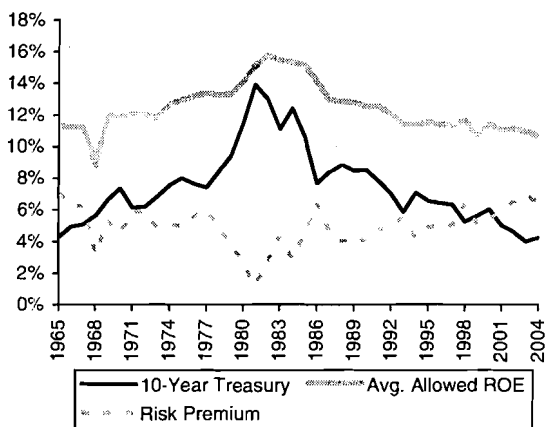
While one would expect allowed returns on equity to track movements in the long-term Treasury rates fairly closely, our research indicates that over the past 40 years, the annual average of allowed rates of return granted in rate cases to regulated electric utilities in the United States has exhibited far greater stability than 10-year U.S. Treasury yields (see Exhibit 20). Over this period, the standard deviation of allowed ROEs granted in utility rate cases has been only 1.5 percentage points (pp), versus 2.4 pp for 10-year Treasuries. The coefficient of variation — the standard deviation as a fraction of the mean value — was also smaller for allowed ROEs than for Treasury yields over the period: the coefficient of variation was 12% in the case of allowed ROEs and 33% in the case of 10-year Treasury yields.

A regression analysis of ROEs allowed by utility regulators in rate cases decided over the last 40 years, against then-prevailing 10-year Treasury yields, results in the following equation:

$$\text{Allowed ROE} = 0.56 \times \text{10-Year Treasury Yield} + 0.08$$

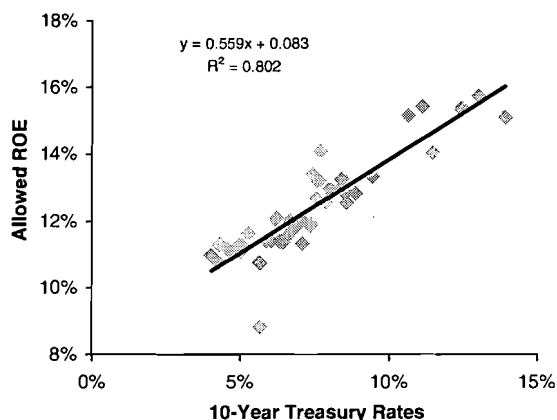
The regression has an R-squared of 80% and a t-statistic of 8.28, implying that it offers a statistically significant explanation of 80% of the movement in allowed ROEs. Based on the experience of the last 40 years, therefore, a 100 basis point (bp) change in the 10-year Treasury yield can be expected to have a 56 bp impact on allowed ROEs granted in utility rate cases (see Exhibit 21).

**Exhibit 20 10-Year Treasury Yields and Allowed ROEs**



Source: FactSet, Regulatory Research Associates (RRA) and Bernstein analysis.

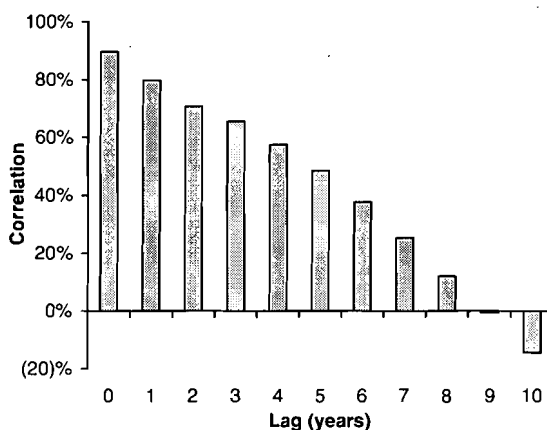
**Exhibit 21 Interest Rates and Allowed ROEs**



Source: FactSet, RRA and Bernstein analysis.

While changes in interest rates are not fully reflected in changes in allowed ROE, the historical evidence suggests that allowed ROEs are set in utility rate cases in light of currently prevailing, rather than historical, Treasury yields. This is illustrated in Exhibit 22, which shows the correlation between the average of allowed ROEs in a particular year and the yield on the 10-year Treasury over the last 10 years. Allowed ROEs show the highest correlation with Treasury yields in the year of the rate decision, and steadily weaker correlations with Treasury yields in preceding years.

**Exhibit 22 Correlation Between 10-Year Treasury Yield and Allowed ROE Lagged to 10 Years**



Source: FactSet, RRA and Bernstein analysis.

The greater stability of allowed ROEs relative to underlying changes in U.S. Treasury yields likely reflects the efforts of regulators to limit volatility in electricity rates while offering stable long-run returns on utility capital. Thus, regulators may look beyond current peaks or troughs in Treasury

yields when making their rate decisions, attenuating the impact of market movements in Treasury yields on allowed ROEs. In estimating utilities' cost of equity, moreover, regulators tend to add to prevailing Treasury yields an estimate of the equity risk premium, which could be relatively constant over time. We note, for example, that the regression of allowed ROEs against Treasury yields over the last 40 years (refer to Exhibit 21) has a  $y$ -intercept of 8.3%. Incorporating a fixed equity risk premium in the calculation of allowed ROEs would, of course, increase the sensitivity of allowed ROEs to movements in underlying Treasury yields.

Exhibit 23 displays individual rate cases over the past two years as well as averages for 2003 and 2004.

## Exhibit 23

## Electric Utility Rate Cases, 2003-04

| Electric Utility                  | State | Date       | Allowed ROE |
|-----------------------------------|-------|------------|-------------|
| Entergy Gulf States, Inc.         | LA    | 1/8/2003   | 11.10%      |
| South Carolina Electric & Gas Co. | SC    | 1/31/2003  | 12.45       |
| Madison Gas & Electric Co.        | WI    | 2/28/2003  | 12.30       |
| PacifiCorp                        | WY    | 3/6/2003   | 10.75       |
| Rochester Gas & Electric          | NY    | 3/7/2003   | 9.96        |
| Wisconsin Public Service          | WI    | 3/20/2003  | 12.00       |
| Commonwealth Edison               | IL    | 3/28/2003  | 11.72       |
| Wisconsin Power and Light         | WI    | 4/3/2003   | 12.00       |
| Interstate Power & Light          | IA    | 4/15/2003  | 11.15       |
| Aquila                            | CO    | 6/12/2003  | 10.75       |
| Public Service of Colorado        | CO    | 6/26/2003  | 10.75       |
| Public Service Electric & Gas Co. | NJ    | 7/31/2003  | 9.75        |
| Rockland Electric Co.             | NJ    | 7/31/2003  | 9.75        |
| Jersey Central Power & Light Co.  | NJ    | 8/1/2003   | 9.50        |
| Pacific Power & Light Co.         | OR    | 8/26/2003  | 10.50       |
| Maine Public Service Co.          | ME    | 9/3/2003   | 10.25       |
| Connecticut Power & Light         | CT    | 12/17/2003 | 9.85        |
| PacifiCorp                        | UT    | 12/17/2003 | 10.70       |
| Montana-Dakota Utilities          | ND    | 12/18/2003 | 11.50       |
| Wisconsin Power & Light           | WI    | 12/19/2003 | 12.00       |
| Wisconsin Public Service          | WI    | 12/19/2003 | 12.00       |
| Green Mountain Power              | VT    | 12/22/2003 | 10.50       |
| Madison Gas & Electric Co.        | WI    | 1/13/2004  | 12.00       |
| PacifiCorp                        | WY    | 3/2/2004   | 10.75       |
| Nevada Power                      | NV    | 3/24/2004  | 10.25       |
| Interstate Power & Light          | MN    | 4/5/04     | 11.00       |
| PSI Energy                        | IN    | 5/18/04    | 10.50       |
| Idaho Power                       | ID    | 5/25/04    | 10.25       |
| Sierra Pacific Power              | NV    | 5/27/04    | 10.25       |
| Kentucky Utilities                | KY    | 6/30/04    | 10.50       |
| Louisville Gas & Electric         | KY    | 6/30/04    | 10.50       |
| Aquila                            | CO    | 8/25/04    | 10.25       |
| Avista                            | ID    | 9/9/04     | 10.40       |
| Narragansett Electric             | RI    | 11/19/04   | 10.50       |
| Detroit Edison                    | MI    | 11/23/04   | 11.00       |
| Interstate Power & Light          | IA    | 12/14/04   | 11.75       |
| Georgia Power                     | GA    | 12/21/04   | 11.25       |
| Wisconsin Public Services         | WI    | 12/21/04   | 11.50       |
| PPL Electric Utilities            | PA    | 12/22/04   | 10.70       |
| Madison Gas & Electric            | WI    | 12/22/04   | 11.50       |
| Western Massachusetts Electric    | MA    | 12/29/04   | 9.85        |
| Average                           |       |            | 10.88%      |
| Average, 2003                     |       |            | 10.97       |
| Average, 2004                     |       |            | 10.77       |

Source: RRA and Bernstein analysis.

### A Case Study of Capital Structure Adjustments in Response to Changes In Allowed ROE

Given the overwhelming importance of allowed ROEs to the earnings and financial performance of regulated utilities, we performed a case study to determine how regulated utilities respond to changes in their allowed ROE. A cut in allowed ROE, all else being unchanged, would lead to a decline in net income. A countervailing influence, of course, is the tendency for utility rate base to grow; in the long run, however, rate base growth reflects the rate of growth of power demand, which currently averages about 2% per annum. A more powerful tool in the short term, therefore, may be for utilities to adjust their capital structure to offset the change in allowed ROE. To test the hypothesis that utilities may seek to offset cuts in allowed ROE by raising their ratio of equity to total capital, we conducted a case study of eight electric utilities confronted with reductions in their allowed ROEs.

The criteria that a utility had to meet to be included in our study were: (1) the utility's operations were entirely regulated on a cost-of-service basis; (2) the utility operated in only one state, so that the decisions of that state's regulators influenced the entirety of its operations; (3) the utility generated only electricity, or if it provided both gas and electric services, then the rates for both had to be set equally and simultaneously; and (4) the utility had at least four rate cases since 1990. The eight utilities that fit all of these criteria and were included in our study are Madison Gas and Electric, PSI Energy, Hawaiian Electric, Northern States Power, Wisconsin Power & Light, Wisconsin Public Service, Green Mountain Power and Puget Sound Energy.

We analyzed these companies on the basis of two relationships using scatter plots. First, we looked at the relationship between allowed ROEs and the equity-to-total capital ratio (we calculated the equity-to-total capital ratio from the companies' balance sheets as reported in their GAAP financial statements, and refer to it hereafter as the "balance sheet equity-to-capital ratio"). Second, we plotted the allowed ROE versus the maximum equity-to-total capital ratio permitted by the utility's regulators. This regulatory equity-to-total capital ratio is the maximum percentage of equity on which the stated return can be earned. While a company's balance sheet equity to total capital can diverge from the regulatory ratio, the utility will not earn a return on equity in excess of this ratio. Exhibits 24-39 display the two relationships for each company.

Three trends can be discerned by examining these two relationships across all eight companies. First, six of the eight companies studied show an inverse relationship between allowed ROE and the maximum ratio of equity to capital authorized by regulators. This suggests that regulators have tended to allow higher maximum equity-to-total capital ratios when ROEs are reduced.

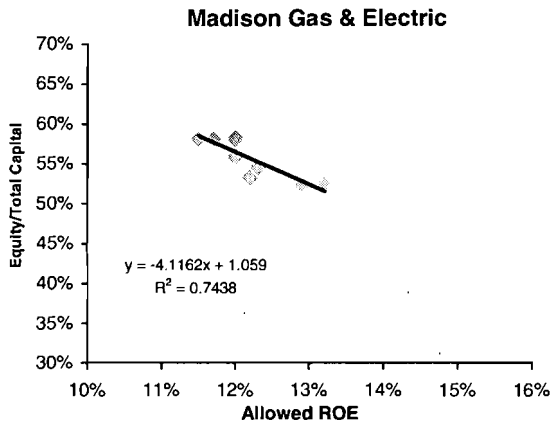
Second, seven of the eight companies exhibit an inverse relationship between authorized ROEs and the ratio of equity to total capital on their balance sheets. Three companies, Madison Gas and Electric, PSI Energy and Hawaiian Electric, exhibit particularly strong inverse relationships: for every percentage point decline in ROE at these three companies, the balance sheet equity-to-total capital ratio rises by one to four percentage points. This would imply that utilities seek to capitalize on the higher benchmark equity-to-capital ratios allowed by regulators by raising the ratio of equity to total capital on their balance sheets.

Third, balance sheet equity-to-total capital ratios move more than benchmark equity-to-total capital ratios for every percentage-point move in allowed ROEs. The greater response is witnessed at six of the eight companies studied. The fact that utilities adjust their balance sheet equity-to-

capital ratios more than anticipated by regulators in setting the benchmark ratio suggests a concerted effort to use this mechanism to their advantage. While regulated utilities cannot earn a return beyond their regulatory equity-to-capital ratio, utilities may have sought to raise their equity ratios in order to position themselves for their next rate case.

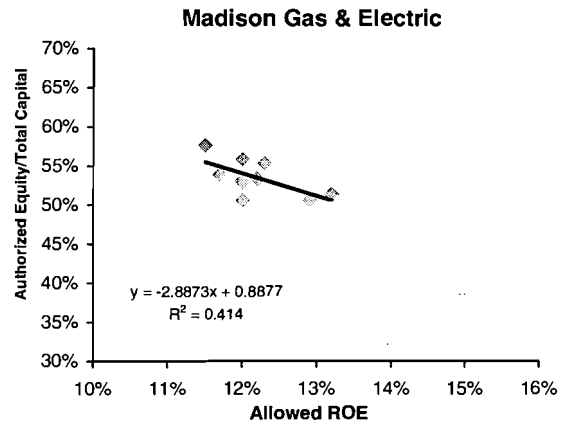
In summary, there is evidence to suggest that (i) when cutting allowed ROEs, regulators often allow increases in maximum permitted equity-to-capital ratios, and (ii) utilities adjust their capital structure in response to changes in allowed ROE. Such adjustments to regulatory and balance sheet equity-to-capital ratios would tend to stabilize utility earnings in the face of cuts in allowed ROEs.

**Exhibit 24 Madison Gas & Electric: Allowed ROE vs. Equity-to-Total Capital**



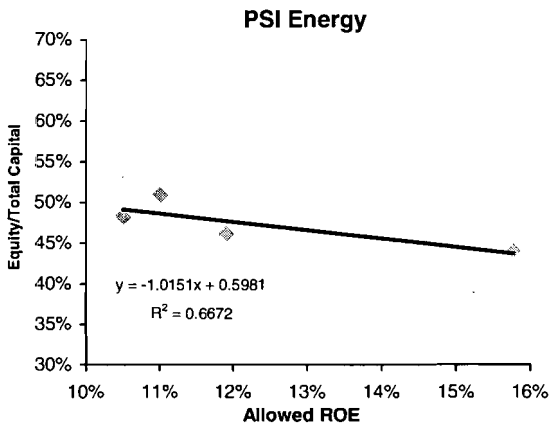
Source: FactSet, RRA and Bernstein analysis.

**Exhibit 25 Madison Gas & Electric: Allowed ROE vs. Authorized Equity-to-Total Capital**



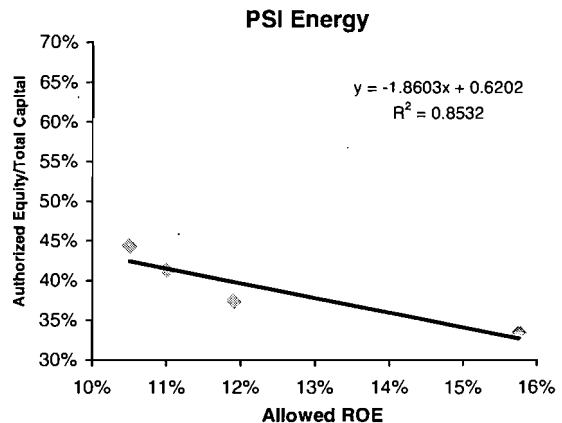
Source: FactSet, RRA and Bernstein analysis.

**Exhibit 26 PSI Energy: Allowed ROE vs. Equity-to-Total Capital**



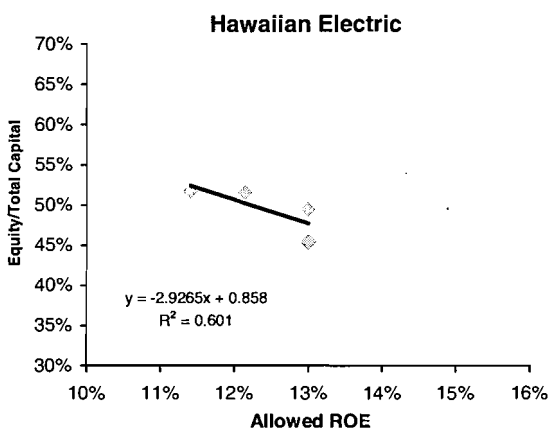
Source: FactSet, RRA and Bernstein analysis.

**Exhibit 27 PSI Energy: Allowed ROE vs. Authorized Equity-to-Total Capital**



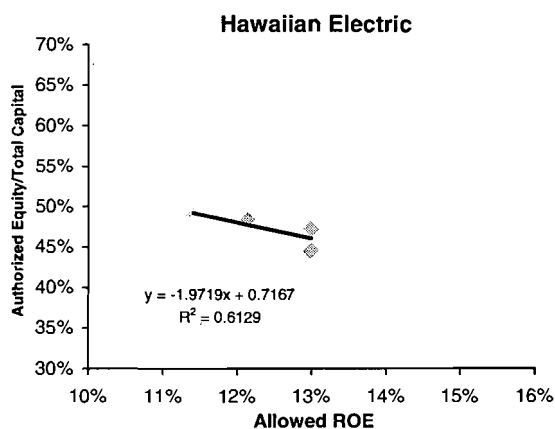
Source: FactSet, RRA and Bernstein analysis.

**Exhibit 28 Hawaiian Electric: Allowed ROE vs. Equity-to-Total Capital**



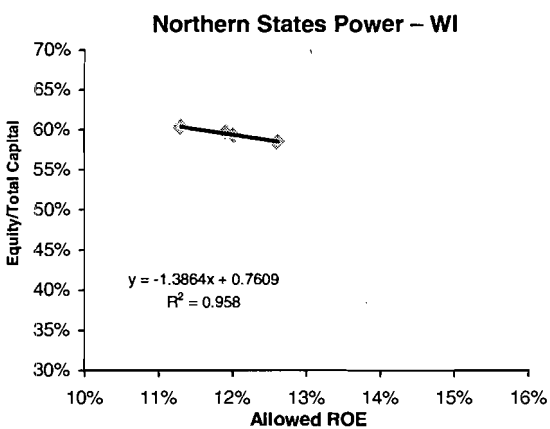
Source: FactSet, RRA and Bernstein analysis.

**Exhibit 29 Hawaiian Electric: Allowed ROE vs. Authorized Equity-to-Total Capital**



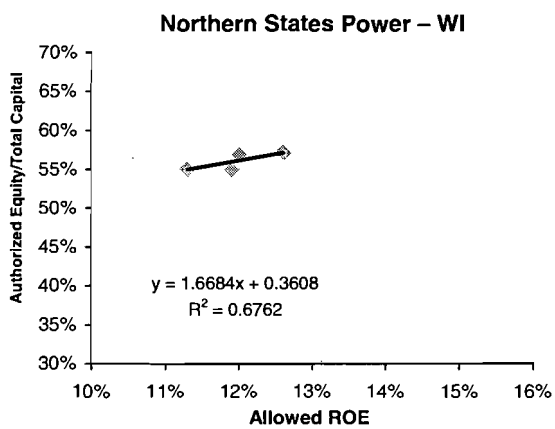
Source: FactSet, RRA and Bernstein analysis.

**Exhibit 30 Northern States Power – WI: Allowed ROE vs. Equity-to-Total Capital**



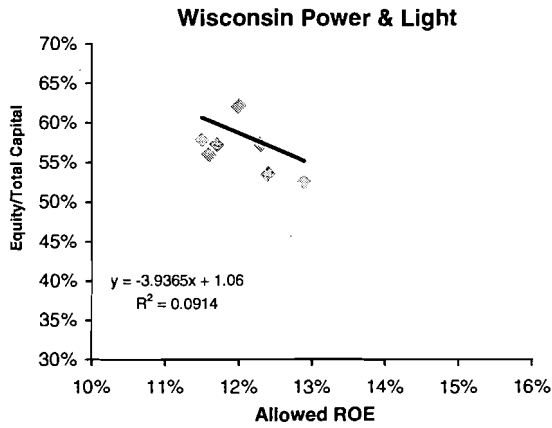
Source: FactSet, RRA and Bernstein analysis.

**Exhibit 31 Northern States Power – WI: Allowed ROE vs. Authorized Equity-to-Total Capital**



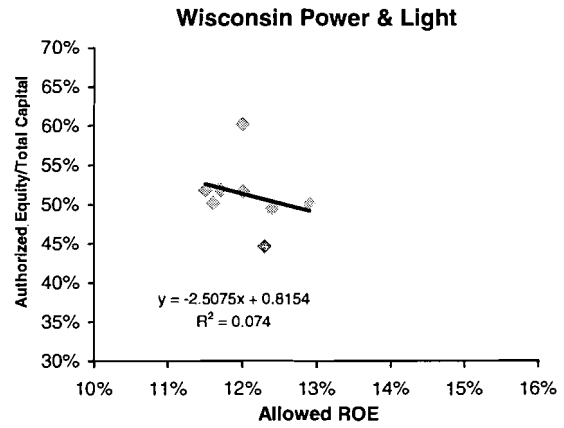
Source: FactSet, RRA and Bernstein analysis.

**Exhibit 32 Wisconsin Power & Light: Allowed ROE vs. Equity-to-Total Capital**



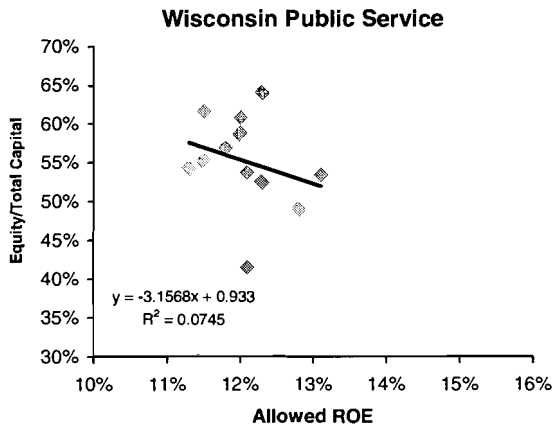
Source: FactSet, RRA and Bernstein analysis.

**Exhibit 33 Wisconsin Power & Light: Allowed ROE vs. Authorized Equity-to-Total Capital**



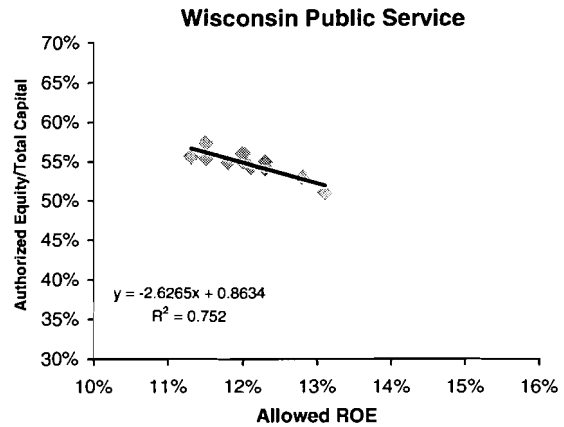
Source: FactSet, RRA and Bernstein analysis.

**Exhibit 34 Wisconsin Public Service: Allowed ROE vs. Equity-to-Total Capital**



Source: FactSet, RRA and Bernstein analysis.

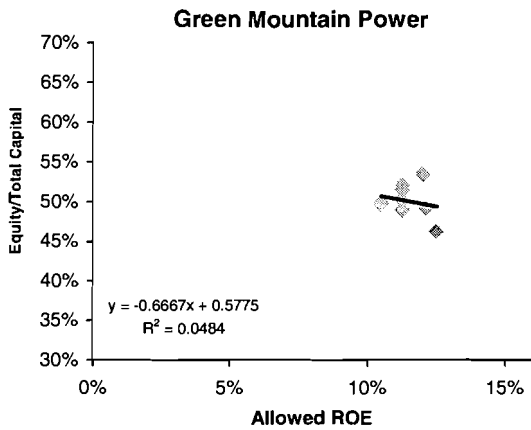
**Exhibit 35 Wisconsin Public Service: Allowed ROE vs. Authorized Equity-to-Total Capital**



Source: FactSet, RRA and Bernstein analysis.

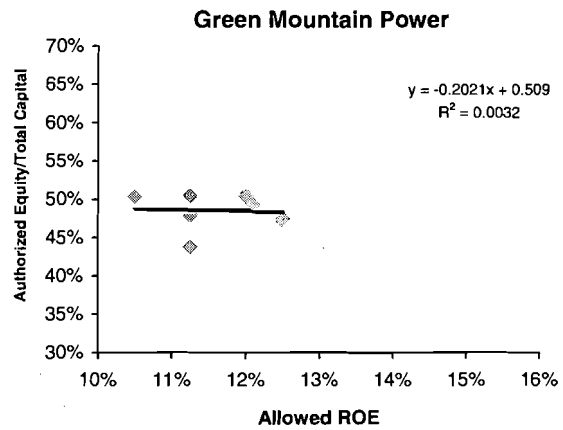


**Exhibit 36 Green Mountain Power: Allowed ROE vs. Equity-to-Total Capital**



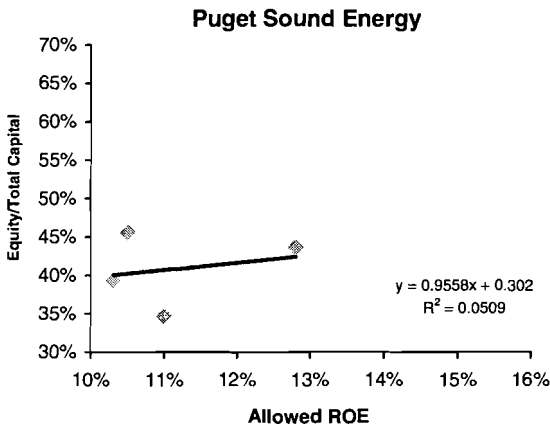
Source: FactSet, RRA and Bernstein analysis.

**Exhibit 37 Green Mountain Power: Allowed ROE vs. Authorized Equity-to-Total Capital**



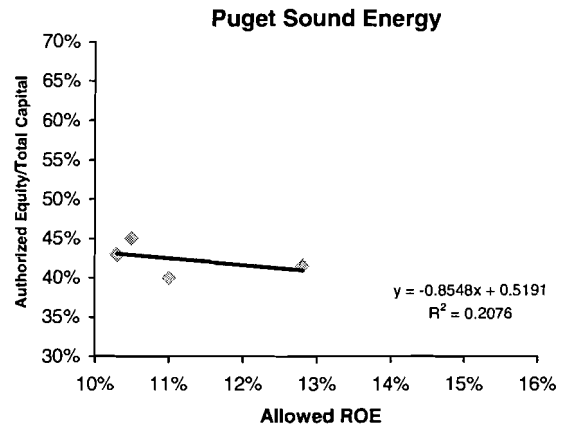
Source: FactSet, RRA and Bernstein analysis.

**Exhibit 38 Puget Sound Energy: Allowed ROE vs. Equity-to-Total Capital**



Source: FactSet, RRA and Bernstein analysis.

**Exhibit 39 Puget Sound Energy: Allowed ROE vs. Authorized Equity-to-Total Capital**

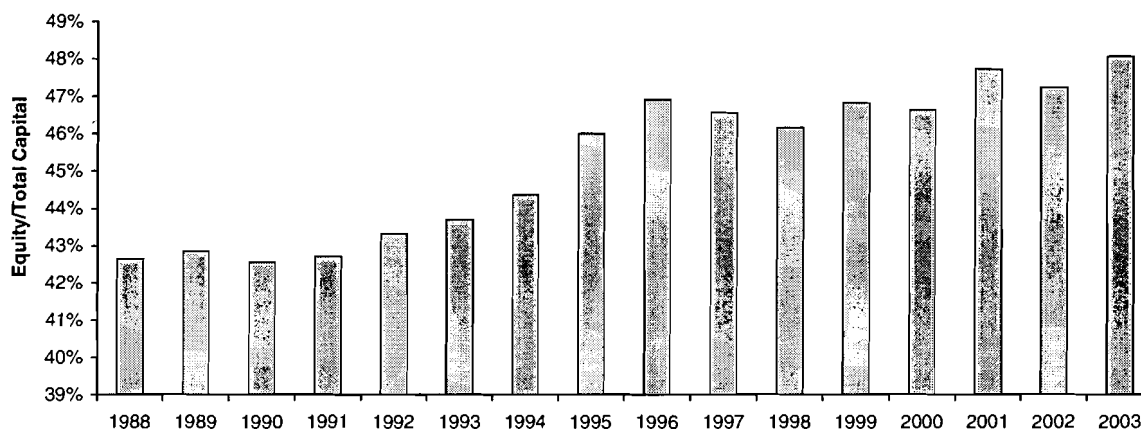


Source: FactSet, RRA and Bernstein analysis.

The pattern illustrated by our test companies is repeated when the utility industry is viewed in aggregate. The last 15 years have been a period of steadily declining long-term interest rates, accompanied by a similar, albeit more modest, decline in average allowed ROEs. As illustrated in Exhibit 40, this period has also witnessed a 5.5 pp increase in the average equity-to-capital ratio, from 42.5% to 48.0%.

Exhibit 40

## Utility Operating Company Equity-to-Total Capital

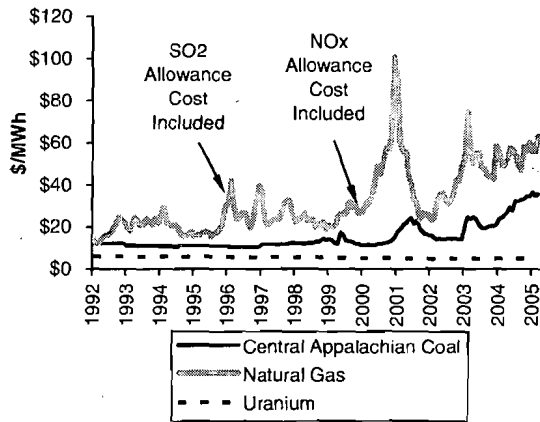


Source: Platts and Bernstein analysis.

### The Outlook for Future ROEs and Earnings at Regulated Utilities

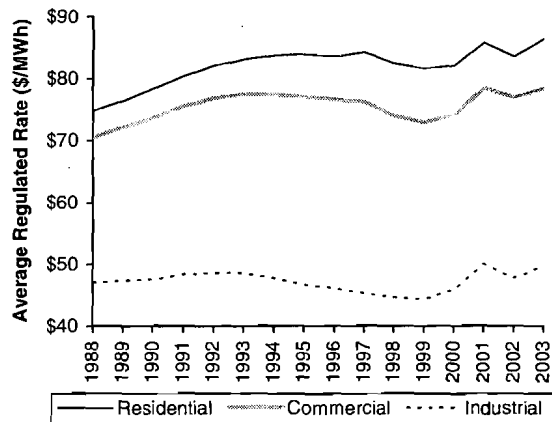
This analysis has broad implications for regulated utilities going forward. The regulatory environment for these companies is currently in a state of flux. Electricity rates at regulated utilities have come under upward pressure in recent years as utilities seek to pass on to customers the higher fuel costs incurred to generate electricity (see Exhibit 41). This trend is likely to persist in the years ahead as long-term coal contracts expire and are renewed at the higher market prices currently prevailing (see Exhibit 42). Second, the recently issued Clean Air Interstate Rule will significantly increase both the operating cost and capital expenditures of coal-fired power generators: we estimate that utilities in the 28 eastern states covered by CAIR will incur \$3.6 billion in incremental operating costs and \$24 billion dollars in capital expenditures in order to achieve the emissions reductions required by 2010. Finally, the consensus expectation is for long-term interest rates, as measured by the yield on the 10-year U.S. Treasury bond, to rise by 75-100 basis points over the next year. Whereas in the past decade utilities faced with rising operating costs may have been deterred from seeking rate increases by the low-interest-rate environment, the consensus view that rates are now headed upwards, combined with sharply rising fuel and environmental compliance costs, makes it likely that utility rate cases will be more frequent in the years ahead.

**Exhibit 41 Fuel Costs (\$/MWh)**



Source: Platts, Bloomberg L.P. and Bernstein analysis.

**Exhibit 42 Average Regulated Rates (\$/MWh)**



Source: Platts and Bernstein analysis.

Our analysis suggests that utility ROEs and earnings may come under less pressure in these upcoming rate cases than is suggested by the decline in Treasury yields over the last two decades. We have found that, historically, 100 bp movements in the yield of the 10-year U.S. Treasury are associated with only 56 bp movements in allowed ROEs. The greater stability of allowed ROEs relative to underlying changes in U.S. Treasury yields likely reflects the efforts of regulators to limit volatility in electricity rates while offering stable long-run returns on utility capital. Further limiting the impact of rate movements on utility earnings is the tendency of changes in allowed ROEs to be offset, at least in part, by inverse movements in the maximum equity-to-capital ratios permitted by regulators. Based on a limited case study of eight utilities' experience since 1990, it seems that utility managements have sought to capitalize on this tendency by raising balance sheet equity-to-capital ratios to offset reductions in allowed ROE.

## Implications of Slow EPS Growth for Utility Valuation

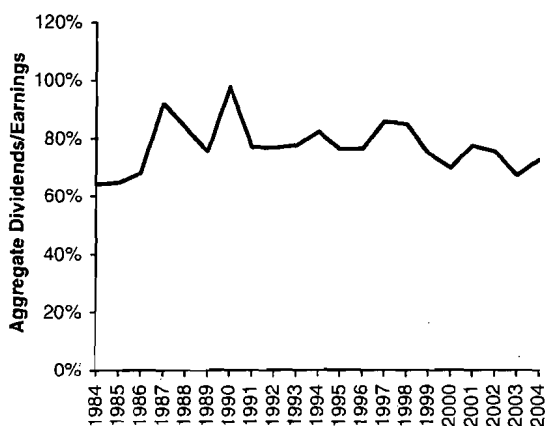
### Valuation of Utility Stocks

In light of our analysis of the historical and anticipated growth of earnings per share at regulated utilities, what can be concluded regarding an appropriate P/E multiple for these stocks? As previously noted, the price-to-earnings ratio can be expressed as a function of the dividend payout ratio, the rate of growth in EPS and the discount rate applied by investors to the stream of future dividends:

$$P/E = \text{dividend payout ratio} / (\text{discount rate} - \text{EPS growth rate})$$

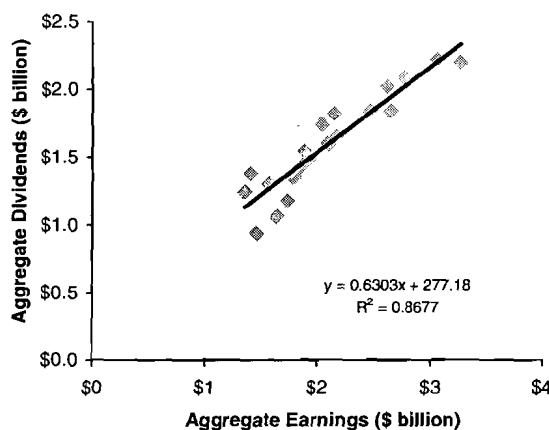
The rate of EPS growth for our sample companies was 1.1% per year over the last two decades and is unlikely, according to our analysis, to exceed the rate of growth in rate base in the future. As rate base correlates closely with growth in power demand, growth in EPS would seem bounded on the upside by the long-run growth in power demand, which NERC estimates to be about 2.0% annually. Finally, the dividend payout ratio of our sample of regulated utilities has been relatively stable over time, as can be seen in Exhibits 43 and 44, and over the last five years has ranged from 67% to 77% of earnings. Inserting this range of values for earnings growth and dividend payout into the equation above allows us to solve for the expected rate of return on regulated utility stocks at different P/E multiples. Alternatively, we can select a desired rate of return and calculate the maximum P/E multiple that an investor should be prepared to pay.

**Exhibit 43 Ratio of Aggregate Dividends to Aggregate Earnings of Sample Group (Payout Ratio)**



Source: FactSet and Bernstein analysis.

**Exhibit 44 Relationship Between Aggregate Dividends and Aggregate Earnings for Sample Group**



Source: FactSet and Bernstein analysis.

**Implication of Slow  
EPS Growth**

Our analysis indicates that regulated electric utilities, which currently trade at an average P/E multiple of some 16 times forward earnings, are capitalizing future dividends at relatively low discount rates — or, put another way, offer investors relatively low long-run returns. Thus, assuming a dividend payout ratio of 75% (at the upper end of the recent range) and long-run growth rates of 1.0-2.0% per annum, a P/E multiple of 16x is consistent with expected returns of 5.7-6.7% (see Exhibit 45). At a dividend payout ratio of 70%, to pay a 16x multiple for a regulated utility growing at 1-2% per year implies the expectation of future returns of 5.4-6.4% (see Exhibit 46) — while at a payout ratio of 65%, expected returns would fall to the range of 5.1-6.1% (see Exhibit 47).

**Exhibit 45 Return Assuming 75%  
Payout Ratio**

| Growth | P/E Multiple |      |      |
|--------|--------------|------|------|
|        | 14x          | 15x  | 16x  |
| 1%     | 6.4%         | 6.0% | 5.7% |
| 2%     | 7.4          | 7.0  | 6.7  |
| 3%     | 8.4          | 8.0  | 7.7  |

Source: FactSet and Bernstein analysis.

**Exhibit 46 Return Assuming 70%  
Payout Ratio**

| Growth | P/E Multiple |      |      |
|--------|--------------|------|------|
|        | 14x          | 15x  | 16x  |
| 1%     | 6.0%         | 5.7% | 5.4% |
| 2%     | 7.0          | 6.7  | 6.4  |
| 3%     | 8.0          | 7.7  | 7.4  |

Source: FactSet and Bernstein analysis.

**Exhibit 47 Return Assuming 65%  
Payout Ratio**

| Growth | P/E Multiple |      |      |
|--------|--------------|------|------|
|        | 14x          | 15x  | 16x  |
| 1%     | 5.6%         | 5.3% | 5.1% |
| 2%     | 6.6          | 6.3  | 6.1  |
| 3%     | 7.6          | 7.3  | 7.1  |

Source: FactSet and Bernstein analysis.

Investors seeking higher returns must find stocks valued significantly below or growing significantly above the industry average. Thus, utilities projected to grow 2% per year while sustaining a dividend payout ratio of 70% will realize returns in excess of 7% only if their earnings multiples are 14x or below. Alternatively, utilities valued at 16 times earnings must realize long-term earnings growth of 3% or more, while maintaining dividend payout ratios of 65% or higher, to offer equity investors returns in excess of 7%.

The next three exhibits are configured to allow the reader to select a target return and, based on the given assumptions as to dividend payout and growth, to determine the maximum P/E multiple that should be paid for a regulated utility stock. Thus, investors targeting a 7.0-8.0% return should be prepared to pay between 10.7 and 12.5 times earnings for a regulated utility that offers 1-2% annual EPS growth while maintaining a sustainable dividend payout ratio of 75% (see Exhibit 48). For utilities paying out only 70% of earnings on an ongoing basis, the P/E multiples corresponding to a 7.0-8.0% target return range from 10.0x to 11.7x (see Exhibit 49), while for utilities paying out only 65% of earnings, the corresponding range of P/E multiples is only 9.3-10.8x (see Exhibit 50). Alternatively, investors may seek out stocks whose earnings growth is more rapid than the industry average and whose capitalization and cash generation is such that the risk of equity dilution is minimal. Utilities capable of growing EPS at 3% per year, for example, while sustaining a dividend payout ratio of 65% or higher can realize 7.0-8.0% returns for their shareholders at P/E multiples of 13.0-16.3x. A regulated utility that combines rapid growth prospects with sound capitalization is Edison International (rated outperform, target price \$44).

**Exhibit 48 P/E Multiple Assuming 75% Payout Ratio**

| Growth | Discount Rate |       |       |
|--------|---------------|-------|-------|
|        | 6.0%          | 7.0%  | 8.0%  |
| 1%     | 15.0x         | 12.5x | 10.7x |
| 2%     | 18.8          | 15.0  | 12.5  |
| 3%     | 25.0          | 18.8  | 15.0  |

Source: FactSet and Bernstein analysis.

**Exhibit 49 P/E Multiple Assuming 70% Payout Ratio**

| Growth | Discount Rate |       |       |
|--------|---------------|-------|-------|
|        | 6.0%          | 7.0%  | 8.0%  |
| 1%     | 14.0x         | 11.7x | 10.0x |
| 2%     | 17.5          | 14.0  | 11.7  |
| 3%     | 23.3          | 17.5  | 14.0  |

Source: FactSet and Bernstein analysis.

**Exhibit 50 P/E Multiple Assuming 65% Payout Ratio**

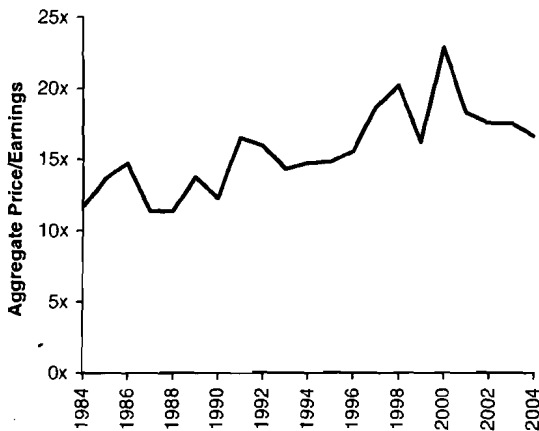
| Growth | Discount Rate |       |      |
|--------|---------------|-------|------|
|        | 6.0%          | 7.0%  | 8.0% |
| 1%     | 13.0x         | 10.8x | 9.3x |
| 2%     | 16.3          | 13.0  | 10.8 |
| 3%     | 21.7          | 16.3  | 13.0 |

Source: FactSet and Bernstein analysis.

**Utility Valuations and Interest Rates**

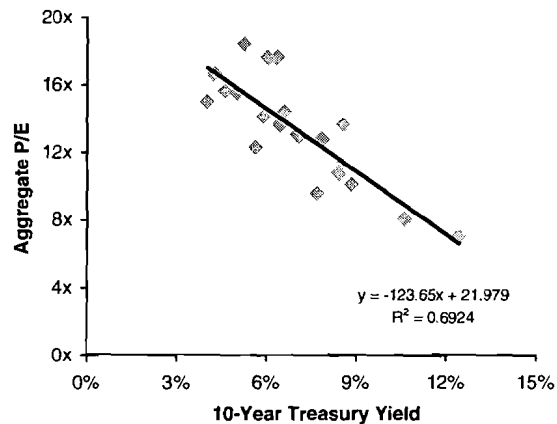
Investors' apparent willingness to accept relatively low expected rates of return on regulated utility stocks is consistent with the historically strong relationship between Treasury yields on the one hand and the price-to-earnings and price-to-dividend ratios of utility stocks on the other. The historical trend in the P/E ratios of our sample utilities and the correlation of P/E ratios with 10-year Treasury yields are presented in Exhibits 51 and 52, while the historical trend in the ratio of price to dividends and the correlation of this ratio with Treasury yields are presented in Exhibits 53 and 54. As can be seen there, movements in the 10-year Treasury bond yield explain 69% of the variation in the average P/E ratio of regulated utility stocks over the last 20 years, and 77% of the variation in the average dividend yield of the group. The high level of utility stock prices relative to current earnings and dividends, in other words, is likely best explained by the historically low level of interest rates and the correspondingly modest return expectations of investors.

**Exhibit 51 History of Aggregate P/E for Sample Group, 1984-2004**

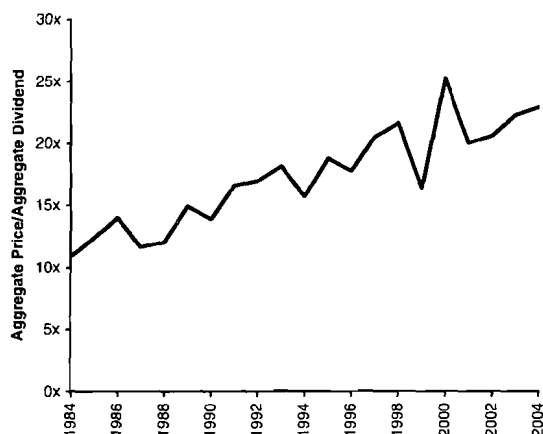


Source: FactSet and Bernstein analysis.

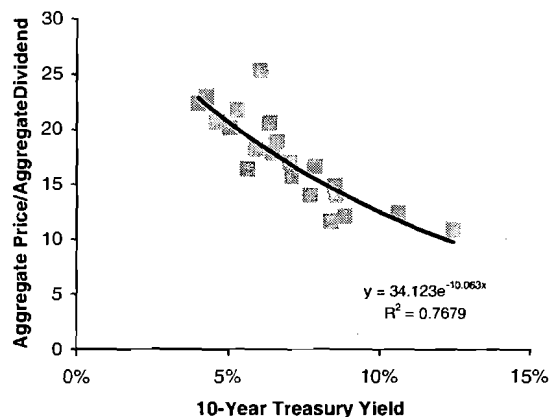
**Exhibit 52 Relationship of Aggregate P/E vs. 10-Year Treasury Yields for Regulated Utilities, 1984-2004**



Source: FactSet and Bernstein analysis.

**Exhibit 53 Aggregate Price-to-Aggregate Dividend for Regulated Utilities, 1984-2004**

Source: FactSet and Bernstein analysis.

**Exhibit 54 Relationship Between Aggregate Price to Dividend vs. 10-Year Treasury Yield for Regulated Utilities, 1984-2004**

Source: FactSet and Bernstein analysis.

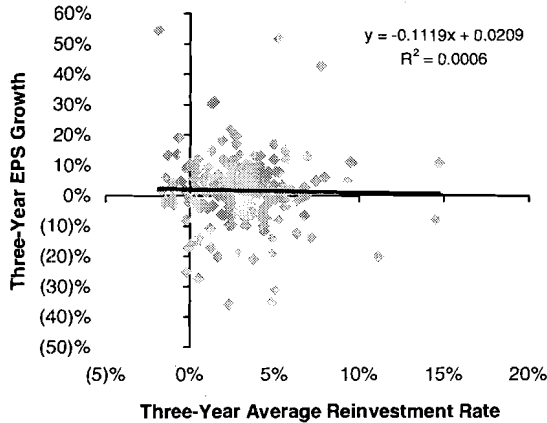
**Should Utility Investors Pay for Growth?**

Investor expectations that regulated utilities will realize higher rates of earnings growth than the 1.0-2.0% indicated by our research would, of course, justify higher P/E ratios than those calculated in Exhibits 45-47, above. In aggregate, we deem it unlikely that the growth of regulated utilities' rate base should accelerate in the future; rather, the energy intensity of U.S. GDP (energy consumed per dollar of GDP) has tended to fall over time, with the result that the rate of growth in electricity demand has tended to lag further behind that of GDP. The historically low level of interest rates currently prevailing, moreover, introduces the risk that allowed ROEs will be reduced in future rate cases, eroding the earnings power of historical investments in rate base. At the level of individual utilities, however, company-specific opportunities for earnings growth (such as faster-than-average population growth in a utility's service territory) in theory should be rewarded with higher P/Es.

Given the tendency of regulated utility earnings to grow with rate base, we examined the historical relationship between high rates of reinvestment by regulated utilities and subsequent earnings growth. If these variables were to show a strong positive correlation, higher P/E multiples than those estimated above might be appropriate for companies with high rates of retained earnings. To test this relationship, we calculated the reinvestment rate (net income minus dividends divided by book value of equity at the beginning of the year) for each of the 13 regulated utilities in our sample for each year from 1984 to 2004. We then calculated three- and five-year rolling averages of each utility's reinvestment rate and compared these with that utility's compound average rate of growth in earnings per share for the corresponding period. Exhibit 55 presents the results of a correlation analysis between these two variables over rolling three-year periods, while Exhibit 56 presents the correlation over rolling five-year periods. Surprisingly, high rates of reinvestment show a very modest correlation with EPS growth (R-squared = 0% over three years; R-squared = 4% over five years). Among our sample group of regulated utilities, in other words, the rate of reinvestment has not been a reliable predictor of medium-term EPS growth.

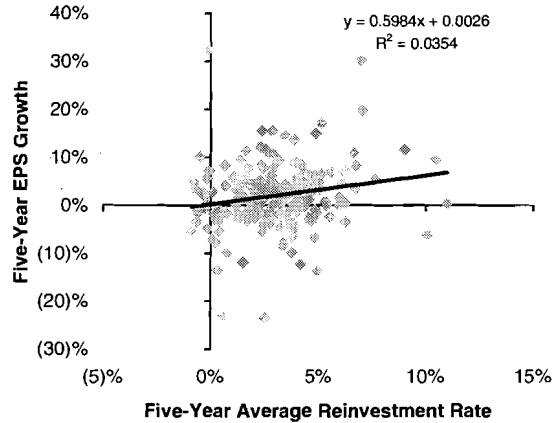
While we can speculate as to the reasons for this (e.g., disallowance of capital expenditures by regulators or unsuccessful attempts at diversification into unregulated businesses), these results imply that investors should be cautious when paying premium P/E multiples for companies with high rates of reinvestment.

**Exhibit 55 Three-Year Average Reinvestment Rate vs. Three-Year EPS Growth Rate**



Source: FactSet and Bernstein analysis.

**Exhibit 56 Five-Year Average Reinvestment Rate vs. Five-Year EPS Growth Rate**



Source: FactSet and Bernstein analysis.

## Conclusion

Our analysis indicates that regulated electric utilities, which currently trade at an average P/E multiple of some 16 times forward earnings, offer investors relatively low long-run returns. Thus, assuming a dividend payout ratio of 70% and long-run growth rates of 1.0-2.0%, a P/E multiple of 16x is consistent with expected returns of 5.4-6.4%. Our analysis also finds that high rates of reinvestment by regulated utilities historically have shown only a very modest correlation with EPS growth. Investors seeking returns in excess of 7% on their regulated utility investments are therefore urged to focus on stocks combining low P/E multiples (14-15x) and high sustainable dividend payout ratios (70-75%).



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## Conclusions

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Over the past 20 years, our sample of 13 regulated utilities experienced a compound annual growth rate in aggregate earnings of 3.8%. In exploring the drivers of earnings growth, we found that the aggregate earnings of our sample group could be predicted as a linear function of total invested capital with an R-squared of 90%. In turn, the best predictor of invested capital appears to be demand growth; a correlation analysis of MWh sold with total invested capital also produces an R-squared of 90%.

Over the same period, however, the compound annual growth in earnings per share for our sample group was only 1.1%. Our analysis suggests two possible explanations for why EPS growth has fallen so far behind aggregate earnings growth over the last 20 years. First, we find a very strong correlation historically between share count and invested capital, possibly reflecting the high dividend payout of regulated utilities and, thus, the limited retained earnings available to fund capital investment. The second contributor to the increase in share count among our sample utilities has been their tendency to reduce leverage over the last 20 years. In 1984, our 13 sample utilities had an aggregate ratio of equity to total capital of 32%; by 2004, they had raised equity to 38% of total capital. Thus, while strong growth in invested capital drove a roughly commensurate increase in aggregate earnings over the last 20 years, the benefit to EPS was largely diluted away through repeated issues of stock.

If demand growth, forecast at 2% per annum, continues to drive the expansion of invested capital and thus growth in regulated earnings, regulated utilities, in the absence of further equity dilution, can be expected to grow EPS at 2% annually. Given the industry average dividend payout ratio of 70% and P/E multiple of 16x, expected returns are thus in the area of 6.4%. Investors' apparent willingness to accept relatively low expected rates of return on regulated utility stocks is consistent with the historically strong relationship between Treasury yields on the one hand and the price-to-earnings and price-to-dividend ratios of utility stocks on the other. The high level of utility stock prices relative to current earnings and dividends, in other words, is best explained by the low returns available on alternative investments of comparable duration and risk.

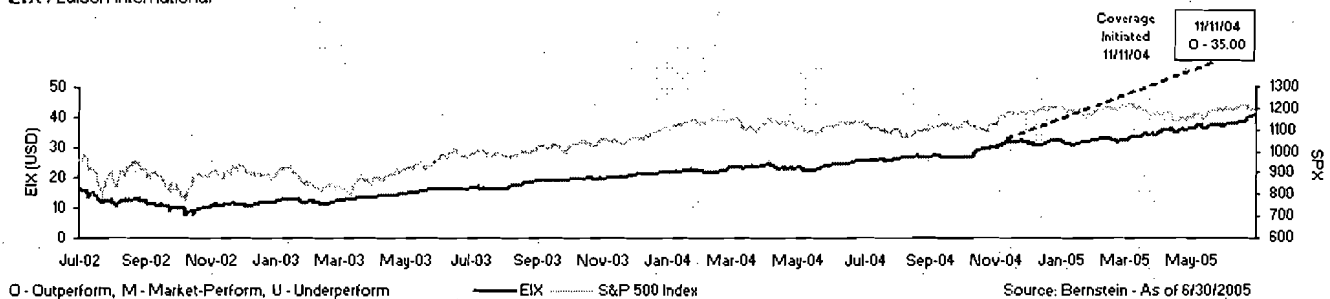
Investors seeking higher returns must find stocks valued significantly below or growing significantly above the industry average. Thus, regulated utilities projected to grow 2% per year while sustaining a dividend payout ratio of 70% will realize returns in excess of 7% only if their earnings multiples are 14x or below. Alternatively, utilities valued at 16 times earnings must realize long-term earnings growth of 3% or more, while maintaining dividend payout ratios of 65% or higher, to offer equity investors returns in excess of 7%. We note, however, that among our sample group of regulated utilities, the rate of reinvestment has not been a reliable predictor of medium-term EPS growth. Investors should be cautious, therefore, when paying premium P/E multiples for companies with high rates of reinvestment.

## Disclosure Appendix

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