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BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

**IN THE MATTER OF THE)
APPLICATION OF ROCKY MOUNTAIN)
POWER FOR APPROVAL OF)
CHANGES TO ITS ELECTRIC)
SERVICE SCHEDULES)**

CASE NO. PAC-E-07-05

**Rebuttal Testimony
of Samuel C. Hadaway**

ROCKY MOUNTAIN POWER

CASE NO. PAC-E-07-05

October 2007

1 **Q. Please state your name and affiliation.**

2 A. My name is Samuel C. Hadaway. I previously filed Direct Testimony on behalf
3 of Rocky Mountain Power (hereinafter the Company) in this proceeding.

4 **Q. Are you the same Samuel C. Hadaway that previously submitted testimony**
5 **in this proceeding?**

6 A. Yes.

7 **Q. What is the purpose of your rebuttal testimony?**

8 A. The purpose of my rebuttal testimony is to respond to the return on equity (ROE)
9 recommendations of Idaho Public Utility Commission Staff (Staff) witness Ms.
10 Terri Carlock and Monsanto witness Mr. Michael P. Gorman. I will also update
11 my cost of equity capital estimates.

12 **Overview of Rate of Return Positions**

13 **Q. What are the parties' rate of return recommendations?**

14 A. Ms. Carlock recommends an ROE of 10.25 percent, Mr. Timothy Shurtz
15 recommends that any ROE over 10.0 percent is excessive, and Mr. Gorman
16 recommends an ROE of 10.0 percent. Mr. Shurtz does not offer an opinion on the
17 Company's proposed capital structure and he has indicated through discovery
18 responses that he is now accepting of Staff's position on ROE. As such, my
19 rebuttal testimony directed towards Staff's recommendation shall also be
20 considered to be directed towards Mr. Shurtz's recommendation. Both Ms.
21 Carlock and Mr. Gorman accept the Company's proposed capital structure and
22 embedded costs of debt and preferred stock, which results in their overall rate of
23 return recommendations of 8.267 percent for Ms. Carlock (Carlock Direct

1 Testimony at 16) and 8.14 percent for Mr. Gorman (Gorman Direct Testimony at
2 8-9). The Company's requested ROE is 10.75 percent, which results in an overall
3 rate of return of 8.52 percent (Williams Direct Testimony at 3).

4 **Q. Do you have any general comments about Ms. Carlock's and Mr. Gorman's**
5 **rate of return recommendations?**

6 A. Yes.

7 **Q. What are your general comments?**

8 A. Their recommendations are on the lower end of the reasonable range for electric
9 utilities generally. However, they fail to recognize the increasing cost of
10 borrowing for all corporate entities and the significant operating risks faced by
11 Rocky Mountain Power. In this context, their specific ROE estimates for Rocky
12 Mountain Power are below the reasonable cost of equity capital.

13 **Q. Please identify some of the operating risks currently facing Rocky Mountain**
14 **Power.**

15 A. The Company's operating risks include the lack of a fuel and purchased power
16 adjustment clause in Idaho, its significant capital requirements, and its Idaho load
17 concentration in a single large industrial customer. With respect to the power cost
18 recovery issue, under exactly the opposite circumstances in Washington Mr.
19 Gorman recommended that ROE should be reduced by 30 basis points (0.3
20 percent) if the Company was granted a Power Cost Recovery Mechanism
21 (Washington Utilities and Transportation Commission, Docket Nos. UE-061546
22 and UE-060817, Gorman Direct Testimony, at 1). Because Mr. Gorman
23 continues to use a comparable company approach based on companies that

1 generally have fuel and power cost adjustment clauses, a symmetrical approach
2 would indicate a higher rate of return than the bottom of his recommended range.

3 **Q. Please identify other concerns you have with Mr. Gorman's analytical**
4 **methodology.**

5 A. Mr. Gorman's analytical methodology is also inconsistent with his prior
6 testimony. In prior cases, he has severely criticized my use of gross domestic
7 product (GDP) growth in the DCF model. In the present case, he finds his own
8 analysts' growth rate estimates too high because they are higher than his five- and
9 ten-year growth rate projections for Gross Domestic Product (GDP) (Gorman
10 Direct Testimony at 14, lines 6-12). As a result, he applies my GDP approach
11 (Exhibit No. 227, MPG-14), but injects lower near-term GDP growth estimates to
12 produce an ROE of only 9.6 percent (Gorman Direct Testimony at 19, lines 8-10).
13 With respect to his risk premium analysis, he provides no independent risk
14 premium analysis but extracts portions of my analysis from which he obtains an
15 ROE of 10.2 percent (Gorman Direct Testimony at 22, line 17). In addition, he
16 attempts to minimize the result of his own CAPM analysis, which produces an
17 ROE of 10.6 percent (Gorman Direct Testimony at 27, line 19). Had he not
18 applied an unreasonably low GDP growth rate in his two-stage DCF model, his
19 own risk premium and CAPM results would have shown that his 10.0 percent
20 ROE recommendation is at the very bottom of his ROE range. Mr. Gorman's
21 selective approach is unreasonable and should be carefully scrutinized by the
22 Commission.

1 **Q. Please identify the concerns you have with Commission Staff's**
2 **recommendation.**

3 A. Similarly, while Ms. Carlock reasonably assesses the comparable earnings ROE
4 range at 10 percent to 11 percent, with a midpoint of 10.5 percent (Carlock Direct
5 Testimony at 11, lines 17-18), without any analytical support, she injects a DCF
6 ROE of 9.4 percent and concludes that only 10.25 percent is the appropriate ROE
7 for Rocky Mountain Power. Ms. Carlock makes no mention of Rocky Mountain
8 Power's significant risks, its lack of a fuel and purchased power cost recovery
9 mechanism in Idaho, or any of the other operating factors she should have
10 considered. In fact, she states that her 10.25 percent ROE recommendation is
11 based on the "average risk characteristics of Rocky Mountain Power and
12 PacifiCorp...." (Carlock Direct Testimony at 15, lines 23-24), but she selects an
13 ROE below the midpoint of the comparable earnings range. This result
14 demonstrates an inconsistency in Ms. Carlock's approach—finding a 10 percent to
15 11 percent comparable earnings range appropriate, arguing that Rocky Mountain
16 Power is of "average risk," and yet recommending an ROE below the middle of
17 the comparable earnings range. Ms. Carlock should have found an ROE of at
18 least 10.5 percent reasonable, and with further consideration of Rocky Mountain
19 Power's risks she could have recommended an ROE above, not below, the middle
20 of the range.

21 **Q. What is the basis for your saying that corporate borrowing costs have**
22 **increased?**

23 A. With improving economic conditions, since mid-2004, the Federal Reserve

1 System increased the short-term Federal Funds interest rate 17 times between
2 June 30, 2004 and June 29, 2006, raising it from 1 percent to 5.25 percent. At its
3 most recent meeting on September 18, 2007, in response to the extreme
4 turbulence in the sub-prime lending markets the Federal Reserve Open Market
5 Committee reduced the Federal Funds rate for the first time in over three years,
6 dropping the rate to 4.75 percent. However, long-term interest rates, which are
7 not directly affected by the Federal Reserve's short-term rate policies, have not
8 declined and remain 70 to 80 basis points above the levels they reached in mid-
9 2005. Estimates for the coming year are also for continued economic growth and
10 for further increases in long-term interest rates.

11 **Q. How have long-term borrowing costs changed over the past two years?**

12 A. The following table provides the month-by-month interest rates paid by utilities
13 and the U.S. Treasury:

Table 1
Long-Term Interest Rate Trends

Month	Single-A Utility Rates	Average Utility Rates	Long-Term Treasury Rates	10-Year Treasury Rates
Sep-05	5.52%	5.54%	4.51%	4.20%
Oct-05	5.79%	5.79%	4.74%	4.46%
Nov-05	5.88%	5.88%	4.83%	4.54%
Dec-05	5.80%	5.83%	4.73%	4.47%
Jan-06	5.75%	5.77%	4.65%	4.42%
Feb-06	5.82%	5.83%	4.73%	4.57%
Mar-06	5.98%	5.98%	4.91%	4.72%
Apr-06	6.29%	6.28%	5.22%	4.99%
May-06	6.42%	6.39%	5.35%	5.11%
Jun-06	6.43%	6.41%	5.29%	5.11%
Jul-06	6.39%	6.39%	5.25%	5.09%
Aug-06	6.20%	6.20%	5.08%	4.88%
Sep-06	6.00%	6.02%	4.93%	4.72%
Oct-06	5.98%	6.01%	4.94%	4.73%
Nov-06	5.80%	5.82%	4.78%	4.60%
Dec-06	5.81%	5.83%	4.78%	4.56%
Jan-07	5.96%	5.97%	4.95%	4.76%
Feb-07	5.90%	5.91%	4.93%	4.72%
Mar-07	5.85%	5.87%	4.81%	4.56%
Apr-07	5.97%	6.01%	4.95%	4.69%
May-07	5.99%	6.03%	4.98%	4.75%
Jun-07	6.30%	6.34%	5.29%	5.10%
Jul-07	6.25%	6.28%	5.19%	5.00%
Aug-07	6.24%	6.29%	5.00%	4.67%
Sep-07	6.18%	6.24%	4.84%	4.52%

Sources: Mergent Bond Record (Utility Rates);
www.federalreserve.gov (Treasury Rates).

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The data in Table 1 show that long-term interest rates are 30 to nearly 70 basis points higher than they were two years ago. Borrowing costs for single-A rated utilities like Rocky Mountain Power increased from 5.52 percent to 6.18 percent during this period (66 basis points). These higher long-term borrowing costs

1 should not be ignored and should be considered explicitly in estimates of the on-
2 going cost of equity capital for Rocky Mountain Power.

3 **Q. What levels of interest rates are forecast for the coming year?**

4 A. Both corporate and government interest rates are expected to rise further from
5 present levels. Exhibit No. 43 provides Standard & Poor's most recent economic
6 forecast from its *Trends & Projections* publication for September 20, 2007. S&P
7 forecasts continuing, albeit slower, economic growth for 2007 and 2008. For
8 2007, growth in real Gross Domestic Product (GDP) is projected at 2.0 percent
9 with nominal GDP (real GDP plus inflation) at 4.6 percent. For 2008, real GDP
10 growth is projected at 2.0 percent and nominal growth at 3.9 percent. These
11 projected growth rates compare to a real rate for 2006 of 2.9 percent and a
12 nominal rate of 6.1 percent. S&P also forecasts that interest rates will rise from
13 current levels. The summary interest rate data are presented in the following
14 table:

15 **Table 2**
16 **Standard & Poor's Interest Rate Forecast**

	Current	Average 2007 Est.	Average 2008 Est.
Treasury Bills	3.8%	4.6%	4.2%
10-Yr. T-Bonds	4.6%	4.8%	5.2%
30-Yr. T-Bonds	4.8%	5.0%	5.4%
Aaa Corporate Bonds	5.8%	5.7%	6.3%

17 Sources: www.yahoo.com Yahoo Finance (Current Rates);
18 Standard & Poor's *Trends & Projections*, September 20, 2007,
19 page 8 (Projected Rates).
20
21
22

23 The data in Table 2 show that average interest rates are projected to increase
24 further during the coming year. The long-term Treasury Bond rate is projected by
25 S&P to average 5.4 percent during 2008. Relative to current levels, projected
26
27
28

1 long-term rates on Treasuries and corporate bonds are expected to increase by an
2 additional 40-60 basis points. These increasing interest rate trends offer important
3 perspective for judging the cost of capital in the present case.

4 **Q. Please summarize your general comments regarding the other parties' ROE**
5 **recommendations.**

6 A. All these factors indicate that the other parties' ROE recommendations are below
7 the cost of equity capital for Rocky Mountain Power. Their recommendations are
8 inconsistent with the increases in long-term interest rates during the past two
9 years. Their positions are also inconsistent with projections for further interest
10 rate increases in 2008. And, most important, neither Ms. Carlock nor Mr.
11 Gorman provides any recognition of the Company's Idaho-specific operating
12 risks. Had either more reasonably considered readily available economic and
13 capital market data and Rocky Mountain Power's risk profile, they should have
14 recognized that their ROE recommendations are too low.

15 **Technical Rebuttal of Idaho Public Utilities Commission Staff Witness Ms. Terri**
16 **Carlock**

17 **Q. What are your primary technical disagreements with Ms. Carlock's ROE**
18 **analysis?**

19 A. While Ms. Carlock's overall conclusions are not outside the range of
20 reasonableness, she provides little analytical detail and her final selection of 10.25
21 percent seems arbitrary. I disagree with her brief DCF analysis because it appears
22 to consider only the simple yield plus growth version of the constant growth DCF
23 model and her inputs for yield and growth are unexplained. Also, both her yield

1 and growth selections seem to be below the current actual market yields, as I will
2 demonstrate in my own DCF update, and her growth rate is below other equally
3 plausible and better supported estimates of investors' growth rate expectations. I
4 discussed these growth rate issues in my direct testimony and need not repeat
5 them here, but I will show that a higher ROE estimate is consistent with the
6 longer-term, more general measures of economic growth that I use.

7 **Q. Do you have any other technical disagreements with Ms. Carlock's ROE**
8 **analysis?**

9 A. Not at this time. The Company has served written discovery requests requesting
10 copies of Ms. Carlock's work papers, analysis, and other material relied upon by
11 her in formulating her ROE recommendations. However, at the time of finalizing
12 my rebuttal testimony the Company had not yet received responses to the
13 discovery requests. As such, upon receipt of the information, if the Company
14 believes additional comments are warranted, the Company will request to file
15 supplemental rebuttal testimony at that time.

16 **Technical Rebuttal of Monsanto Witness Mr. Michael P. Gorman**

17 **Q. Can you demonstrate what Mr. Gorman's DCF analysis would have**
18 **indicated if he had used more reasonable assumptions as inputs to that**
19 **analysis?**

20 A. Yes. These results are shown on Exhibit No. 44, pages 1-7. In Exhibit No. 44,
21 page 1, column 1, I summarize Mr. Gorman's initial ROE results. These data
22 show that only one of his model results (9.6 percent from the Two-Stage DCF
23 model) is below his final ROE recommendation of 10.0 percent. Had he not

1 forced his low two-stage growth results down by including an unreasonably low
2 estimate of GDP growth in the second stage of that model, he would have found
3 by simply averaging the results from his other three models an ROE of 10.27
4 percent. In this light, had Mr. Gorman more reasonably interpreted his own
5 analysis and the other checks of reasonableness that he offers, his ROE estimate
6 would have been higher.

7 **Q. How did you adjust Mr. Gorman's DCF analysis?**

8 A. My changes to his analysis are summarized in column 2 of page 1 on Exhibit No.
9 44. They indicate that had Mr. Gorman relied on more reasonable input
10 assumptions, he would have found an ROE estimate very similar to the 10.75
11 percent that I have recommended.

12 The results in column 2 of the exhibit are based on a simple adjustment to
13 Mr. Gorman's data. I averaged the long-term GDP growth rate with his short-
14 term analysts' growth rate estimates. The effect of this adjustment is shown on
15 Exhibit No. 44, page 2. With this change, his constant growth DCF estimate
16 increases to 10.5 percent.

17 I also updated Mr. Gorman's Two-Stage Growth DCF analysis by
18 replacing his second stage GDP growth estimate of 5.10 percent with my long-
19 term projection of GDP growth of 6.60 percent. These results are shown on page
20 3 of Exhibit No. 44. They indicate a Two-Stage Growth DCF estimate of 10.8
21 percent.

22 **Q. What are your technical criticisms of Mr. Gorman's risk premium analysis.**

23 A. In his bond yield plus risk premium analysis he uses the same approach based on

1 allowed regulatory rates of return that I used. However, in his analysis, he uses a
2 shorter time period and he fails to include the well known inverse relationship
3 between risk premiums and interest rates. As I demonstrated in my direct
4 testimony, equity risk premiums are smaller when interest rates are high and they
5 are larger when interest rates decline. Without including this characteristic of risk
6 premiums, Mr. Gorman's risk premium analysis is not consistent with recent
7 experience or with sound academic research, such as the Harris and Marston
8 studies I discussed in my direct testimony. Without considering this fundamental
9 relationship, Mr. Gorman (1) used recent low interest rates rather than reasonable
10 forecasts of the level of interest rates for the time rates will be in effect and (2)
11 combined them with low risk premiums that are not adjusted for the inverse
12 relationship between risk premiums an interest rates. These two errors combine
13 to understate the cost of equity capital. In addition, his interpretation of his risk
14 premium analysis appears to be quite subjective in terms of the data he presented.

15 **Q. How is Mr. Gorman's risk premium analysis constructed?**

16 A. He presents his risk premium analysis in Exhibit No. 229 (MPG-16) through
17 Exhibit No. 232 (MPG-19) and he discusses his analysis on pages 19-22 of his
18 direct testimony. His analysis consists of two parts. In one part he adds a
19 Treasury bond equity risk premium of 5.2 percent to a projected 30-year Treasury
20 bond yield of 5.2 percent. This produces an ROE of 10.4 percent. In his second
21 approach, he adds a utility bond equity risk premium of 3.7 percent to the recent
22 single-A utility bond yield of 6.25 percent. This produces an ROE estimate of
23 10.0 percent. From these two results, he concludes that a 10.2 percent risk

1 premium ROE is appropriate.

2 **Q. How did Mr. Gorman select his equity risk premiums?**

3 A. On page 2, at lines 19-20, Mr. Gorman explains that 18 of his 22 equity risk
4 premium observations based on Treasury bond interest rates range between 4.4
5 percent and 5.9 percent. From this range he selects the approximate midpoint of
6 5.2 percent for his Treasury bond analysis. In the following paragraph, he says
7 that his equity risk premiums based on utility bond interest rates "...primarily fall
8 in the range of 3.0% to 4.4%...." (Gorman Direct Testimony at 21, line 2). From
9 this range he selects a midpoint utility bond risk premium of 3.7 percent.

10 **Q. Why do you disagree with Mr. Gorman's selections in his Treasury bond**
11 **analysis?**

12 A. Without closer inspection, his selections might appear reasonable. In fact, they
13 are not. What Mr. Gorman fails to explain is that, with the lower interest rates in
14 recent years, in his own risk premium data since 2000 there is *not one* Treasury
15 bond equity risk premium as low as the 5.2 percent he recommends. Indeed, Mr.
16 Gorman excludes from his subjective range the one observation in 2002 when the
17 Treasury bond equity risk premium was closest to the 5.2 percent projected
18 Treasury bond equity risk premium that he finally applies. In 2002, the Treasury
19 bond yield was 5.43 percent and, based on an average allowed ROE of 11.16
20 percent, the indicated equity risk premium was 5.73 percent. Similarly, in 2005
21 when Treasury yields dropped to 4.65 percent, the equity risk premium rose to
22 5.89 percent and the average ROE was 10.54 percent. Given today's Treasury
23 yields, without any further analysis, this data shows that Mr. Gorman's risk

1 premium estimates of ROE should have been in the 10.5 percent to 11.0 percent
2 range.

3 **Q. Is there a similar problem with Mr. Gorman's equity risk premium analysis**
4 **based on utility bonds?**

5 A. Yes. Mr. Gorman's Exhibit No. 230 (MPG-17) shows that to find an equity risk
6 premium as low as his 3.7 percent one must revert to 2001 when the interest rate
7 on A-rated utility bonds (7.37 percent) was considerably higher than today's
8 yields or the level of interest rates forecasted to be in effect when rates from this
9 proceeding are approved. The effect of Mr. Gorman's improper omission of the
10 inverse risk premium-interest rate relationship can be seen further by simply
11 comparing the 7.98 percent average utility interest rate over his 22-year analysis
12 Exhibit No. 230 (MPG-17) to the 6.25 percent current single-A rate in Exhibit No.
13 232 (MPG-19) he uses to estimate ROE.. Based on a 7.98 percent average utility
14 interest rate, the average equity risk premium was 3.67 percent from his 22-year
15 study. During the only years in that analysis when interest rates were as low as
16 6.25 percent (2004-2007), the average equity risk premium was 4.5 percent. Had
17 Mr. Gorman simply used this equity risk premium for consistency with his low
18 6.25 percent utility interest rate, he would have found an ROE of 10.75 percent
19 (10.75% = 6.25% + 4.5%). These comparisons show that Mr. Gorman's risk
20 premium data actually support an ROE range of 10.5 percent to 11.0 percent.

1 **Q. In your risk premium analysis in your direct testimony, you used a standard**
2 **regression analysis to account for the inverse relationship between risk**
3 **premiums and interest rates. What does Mr. Gorman's risk premium**
4 **analysis indicate when this approach is applied to his data?**

5 A. In Exhibit No. 44 and pages 4-7, I have applied the standard regression analysis to
6 calculate "interest rate adjustment" factors for his two risk premium studies. This
7 approach properly takes into account the inverse relationship between equity risk
8 premiums and interest rates. Using this analysis, Mr. Gorman's Treasury bond
9 equity risk premium data indicate an ROE of 10.8 percent. For his utility bond
10 equity risk premium data, the indicated ROE is 10.6 percent. These results further
11 confirm that Mr. Gorman's risk premium data support an ROE in the range of
12 10.5 percent to 11.0 percent.

13 **Q. Has Mr. Gorman previously recognized the inverse risk premium-interest**
14 **rate relationship?**

15 A. Yes. In his testimony before the Public Utility of Commission of Texas in Docket
16 No. 14965, page 15, lines 10-13, Mr. Gorman stated:

17 The results of my study indicate an inverse relationship between a
18 bond's real return and the equity risk premium. This result is
19 consistent with the findings of published studies which indicate
20 equity risk premiums move inversely with interest rates.

21 Had Mr. Gorman made a similar adjustment in this case, his risk premium results
22 would have indicated an ROE considerably higher than the one he recommends.

23 **Q. What is the result of Mr. Gorman's CAPM analysis?**

24 A. His CAPM results are presented in his Exhibit No. 236 (MPG-23) and discussed
25 on page 27 of his testimony. That analysis indicates an ROE of 10.6 percent.

1 **Q. In Exhibit No. 237 (MPG-24), Mr. Gorman presents an alternative CAPM**
2 **analysis that indicates a lower ROE. Is that analysis appropriate?**

3 A. No. In Exhibit No. 237, Mr. Gorman attempts to downplay the results of his
4 current CAPM analysis, which produces an ROE estimate of 10.6 percent, by
5 injecting a five-year historical CAPM analysis. In that analysis, instead of using
6 current market derived beta coefficients for comparable group, he substitutes
7 average betas for the past five years. In effect, this analysis would have the
8 Commission ignore current market data that reflects the increased risks of the
9 electric utility industry. This approach is inappropriate and should be disregarded
10 and is certainly inconsistent with the *Hope* and *Bluefield* directive that:

11 “[a] public utility is entitled to such rates as will permit it to earn a
12 return upon the value of the property which it employs for the
13 convenience of the public equal to that generally being made *at the*
14 *same time* and in the same general part of the country on
15 investments in other business undertakings which are attended by
16 corresponding risks and uncertainties...” [Bluefield Water Works
17 and Improvement Co. v. Public Service Comm’n. 262 U.S. 679,
18 692 (1923)] Emphasis added.

19 Mr. Gorman's primary CAPM result at 10.6 percent should have been given
20 greater weight in his final recommendation.

21 **Update of ROE Analysis**

22 **Q. What are the results of your updated DCF analyses?**

23 A. My updated DCF estimates are based on the same comparable company methods
24 I used in my Direct Testimony. My updated DCF results are presented in Exhibit
25 No. 45. The reasonable range from my updated DCF analysis is 10.7 percent to
26 11.2 percent. These results are based on the two-stage growth DCF model and the
27 single-stage growth DCF model with the growth rate based on long-term GDP

1 growth. The traditional constant growth DCF model indicates an ROE of only 9.6
2 percent to 9.8 percent, which falls more than 100 basis points below my risk
3 premium checks of reasonableness and, therefore, continues to be excluded from
4 my recommended electric utility DCF range.

5 **Q. What are the results of your updated risk premium analysis?**

6 A. My updated risk premium analysis is presented in Exhibit No. 46. Based on
7 currently projected single A rated utility interest rates for 2008, the risk premium
8 analysis indicates an ROE of 10.83 percent. The updated results of the Ibbotson
9 risk premium analysis and the Harris-Marston risk premium analysis indicate
10 ROEs of 11.0 percent ($6.50\% + 4.5\% = 11.0\%$) and 11.6 percent ($6.50\% + 5.13\%$
11 $= 11.63\%$), respectively.

12 **Q. What do you conclude from your updated ROE analyses?**

13 A. My updated analyses indicate that the Company's requested 10.75 percent base
14 ROE is a reasonable, albeit conservative, estimate of the fair cost of equity capital
15 for my comparable company group. My conclusion is also supported by the
16 interest rate risk associated with projections for higher rates over the coming year
17 and the ongoing risks and uncertainties that exist in the electric utility industry as
18 well as the specific risks that Rocky Mountain Power is currently facing.

19 **Q. Does this conclude your rebuttal testimony?**

20 A. Yes.

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Case No. PAC-E-07-05

Exhibit No. 43

Witness: Samuel C. Hadaway

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

ROCKY MOUNTAIN POWER

Exhibit Accompanying Rebuttal Testimony of Samuel C. Hadaway

Standard & Poor's Projections

October 2007

Trends & Projections

Economic Indicators

Seasonally Adjusted Annual Rates — Dollar Figures in Billions

	Annual % Change				E2008										
	2006	E2007	E2008	2006	E2007	E2008	10	P20	E30	E40	10	20	30	40	
Gross Domestic Product															
GDP (current dollars)	\$13,195.0	\$13,802.0	\$14,333.0	6.1	4.6	3.9	\$13,552.0	\$13,775.0	\$13,887.0	\$13,994.0	\$14,119.0	\$14,248.0	\$14,402.0	\$14,562.0	
Annual rate of increase (%)	6.1	4.6	3.9	-	-	-	4.9	6.7	3.3	3.1	3.6	3.7	4.4	4.5	
Annual rate of increase—real GDP (%)	2.9	2.0	2.0	-	-	-	0.6	4.0	2.3	1.8	1.5	1.7	2.5	2.8	
Annual rate of increase—GDP deflator (%)	3.2	2.6	1.8	-	-	-	4.2	2.7	1.0	1.3	2.1	2.0	1.9	1.7	
* Components of Real GDP															
Personal consumption expenditures	\$8,044.0	\$8,277.0	\$8,468.0	3.1	2.9	2.3	\$8,216.0	\$8,245.0	\$8,299.0	\$8,347.0	\$8,394.0	\$8,441.0	\$8,493.0	\$8,544.0	
% change	3.1	2.9	2.3	-	-	-	3.7	1.4	2.6	2.3	2.3	2.3	2.5	2.4	
Durable goods	1,180.5	1,233.0	1,244.1	3.8	4.5	0.9	1,223.2	1,228.4	1,240.0	1,240.4	1,236.6	1,237.7	1,249.0	1,253.2	
Nondurable goods	2,337.6	2,396.8	2,460.0	3.7	2.5	2.6	2,366.6	2,384.5	2,399.8	2,416.4	2,434.8	2,452.2	2,468.6	2,484.2	
Services	4,545.5	4,671.6	4,784.3	2.7	2.8	2.4	4,630.7	4,656.7	4,685.0	4,714.1	4,743.3	4,770.4	4,796.6	4,826.8	
Nonresidential fixed investment	1,306.8	1,355.8	1,400.6	6.6	3.8	3.3	1,321.7	1,358.9	1,366.7	1,378.1	1,386.3	1,393.7	1,403.5	1,418.9	
% change	6.6	3.8	3.3	-	-	-	2.1	11.1	2.9	3.4	2.4	2.2	2.8	4.5	
Producers durable equipment	1,050.6	1,061.6	1,102.5	5.9	1.0	3.9	1,045.3	1,056.2	1,066.0	1,078.7	1,089.9	1,095.1	1,104.2	1,121.0	
Residential fixed investment	560.0	466.8	380.3	(4.7)	(16.6)	(18.5)	497.1	481.9	459.9	428.4	396.9	378.8	373.3	372.4	
% change	(4.7)	(16.6)	(19.5)	-	-	-	(16.6)	(11.6)	(17.1)	(24.6)	(26.4)	(17.0)	(5.7)	(0.9)	
Net change in business inventories	40.3	7.0	14.2	-	-	-	1.9	5.4	10.3	12.3	14.7	11.8	12.5	17.7	
Gov't purchases of goods & services	1,981.4	2,018.1	2,060.4	1.8	1.9	2.1	1,994.7	2,014.7	2,024.6	2,038.5	2,050.7	2,058.2	2,063.6	2,069.3	
Federal	742.3	752.2	775.4	2.2	1.3	3.1	740.2	750.8	755.0	762.8	770.4	774.7	777.2	779.4	
State & local	1,239.0	1,265.7	1,285.1	1.6	2.2	1.5	1,254.2	1,263.7	1,269.4	1,275.6	1,280.4	1,283.6	1,286.5	1,290.0	
Net exports	(624.5)	(571.5)	(516.7)	-	-	-	(612.1)	(571.1)	(558.4)	(544.4)	(533.3)	(521.7)	(509.5)	(502.4)	
Exports	1,304.1	1,395.6	1,519.8	8.4	7.0	8.9	1,354.7	1,379.6	1,408.5	1,439.4	1,473.0	1,504.2	1,534.7	1,567.1	
Imports	1,928.6	1,967.0	2,036.5	5.9	2.0	3.5	1,966.8	1,950.7	1,966.9	1,983.8	2,006.2	2,025.9	2,044.2	2,069.5	
** Income & Profits															
Personal income	\$10,983.0	\$11,689.0	\$12,256.0	6.6	6.4	4.9	\$11,469.0	\$11,605.0	\$11,770.0	\$11,910.0	\$12,056.0	\$12,187.0	\$12,317.0	\$12,463.0	
Disposable personal income	9,629.0	10,199.0	10,701.0	5.9	5.9	4.9	10,015.0	10,122.0	10,268.0	10,390.0	10,511.0	10,641.0	10,760.0	10,893.0	
Savings rate (%)	0.4	0.9	1.5	-	-	-	1.0	0.5	0.9	1.2	1.3	1.5	1.5	1.7	
Corporate profits before taxes	1,805.8	1,845.9	1,827.7	14.3	2.2	(1.3)	1,815.8	1,935.8	1,836.1	1,795.9	1,807.6	1,805.9	1,828.3	1,849.2	
Corporate profits after taxes	1,351.9	1,383.2	1,374.3	13.9	2.3	(0.6)	1,363.3	1,443.9	1,375.6	1,350.0	1,361.0	1,362.1	1,379.3	1,394.8	
† Earnings per share (S&P 500)	81.50	86.10	90.30	16.6	5.6	4.9	83.10	85.10	85.30	86.10	88.10	89.10	89.90	90.30	
† Prices & Interest Rates															
Consumer price index	3.2	2.6	1.9	-	-	-	3.8	6.0	1.6	0.5	2.0	1.9	1.7	1.7	
Treasury bills	4.7	4.6	4.2	-	-	-	5.0	4.8	4.6	4.2	4.2	4.2	4.2	4.3	
10-yr notes	4.8	4.8	5.2	-	-	-	4.7	4.9	4.8	4.8	5.0	5.1	5.3	5.4	
30-yr bonds	4.9	5.0	5.4	-	-	-	4.8	5.0	5.0	5.0	5.2	5.3	5.4	5.6	
New issue rate—corporate bonds	5.6	5.7	6.3	-	-	-	5.4	5.6	5.7	5.9	6.1	6.3	6.4	6.5	
New issue rate—corporate bonds	5.6	5.7	6.3	-	-	-	5.4	5.6	5.7	5.9	6.1	6.3	6.4	6.5	
Other Key Indicators															
Housing starts (1,000 units SAAR)	1,810.0	1,360.0	1,130.0	(12.6)	(25.2)	(16.6)	1,460.0	1,470.0	1,320.0	1,170.0	1,090.0	1,100.0	1,130.0	1,200.0	
Auto & truck sales (1,000,000 units)	16.5	16.1	16.1	(2.6)	(2.3)	(0.1)	16.4	16.0	15.8	16.2	16.1	16.1	16.1	16.1	
Unemployment rate (%)	4.6	4.6	5.0	-	-	-	4.5	4.5	4.7	4.8	4.9	5.0	5.0	5.0	
† Earnings per share (S&P 500)	(1.5)	(4.7)	(5.8)	-	-	-	1.6	(11.9)	(9.5)	(7.6)	(8.4)	0.8	(0.9)	(3.3)	

Note: Annual changes are from prior year and quarterly changes are from prior quarter. Figures may not add to totals because of rounding. A—Advance data. P—Preliminary. E—Estimated. R—Revised. *1996 Chain-weighted dollars. **Current dollars. †Trailing 4 quarters. ‡Average for period. §Quarterly % changes at quarterly rates. This forecast prepared by Standard & Poor's.

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Exhibit No. 44
Witness: Samuel C. Hadaway
IDAHO PUBLIC UTILITIES COMMISSION

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

ROCKY MOUNTAIN POWER

Exhibit Accompanying Rebuttal Testimony of Samuel C. Hadaway

Mr. Gorman Analysis Revised

October 2007

Rocky Mountain Power Summary of Updated Gorman ROE Results

	(1)	(2)
	Summary of Results	
	Gorman	
	Initial	Updated
	ROE	ROE
DCF Models		
Constant Growth DCF	10.0%	10.5%
Two-Stage DCF	9.6%	10.8%
Risk Premium	10.2%	10.7%
CAPM	10.6%	10.6%
ROE Recommendation	10.0%	10.7%

Notes:

Column 1: See Table 2 at Gorman, page 28.

Column 2: See page 2 of this exhibit for updated Constant Growth DCF result; page 3 for Two-Stage result; average of results from pages 4 and 6 for Risk Premium result; CAPM results unchanged.

Rocky Mountain Power
Gorman Constant Growth DCF Analysis Considering Long-Term GDP Growth

No. Company	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Gorman Dividend D ₀	Gorman Price P ₀	Dividend Yield	Gorman Short-Term Growth (EPS)	Long-Term Growth (GDP)	Average Growth	Updated Cost of Equity
1 ALLETE	1.64	45.09	3.87%	6.25%	6.60%	6.43%	10.30%
2 Alliant Energy Co.	1.27	38.62	3.50%	6.22%	6.60%	6.41%	9.91%
3 CH Energy Group	2.16	46.23	4.98%	N/A	6.60%	6.60%	N/A
4 Con. Edison	2.32	45.72	5.33%	3.48%	6.60%	5.04%	10.37%
5 DTE Energy Co.	2.12	48.80	4.59%	4.89%	6.60%	5.75%	10.34%
6 Energy East Corp.	1.20	25.44	4.96%	3.83%	6.60%	5.22%	10.18%
7 IDACORP	1.20	32.18	3.96%	5.56%	6.60%	6.08%	10.04%
8 MGE Energy, Inc.	1.39	32.46	4.56%	N/A	6.60%	6.60%	N/A
9 NSTAR	1.30	32.57	4.25%	6.33%	6.60%	6.47%	10.71%
10 PPL Corporation	1.22	47.86	2.79%	12.62%	6.60%	9.61%	12.40%
11 Progress Energy	2.44	45.90	5.61%	4.58%	6.60%	5.59%	11.20%
12 SCANA Corp.	1.76	38.47	4.82%	4.27%	6.60%	5.44%	10.26%
13 Southern Co.	1.61	34.95	4.87%	4.71%	6.60%	5.66%	10.52%
14 Vectren Corp.	1.26	27.06	4.91%	4.22%	6.60%	5.41%	10.32%
15 Xcel Energy Inc.	0.92	20.71	4.70%	5.04%	6.60%	5.82%	10.52%
Average	1.59	37.47	4.51%	5.54%	6.60%	6.14%	10.5%

Notes:

Columns 1-2: See Gorman Exhibit 225 (MPG-12).

Column 3: Column 1 increased by column 6, divided by Column 2.

Column 4: See Gorman Exhibit 225 (MPG-12).

Column 5: See Exhibit SCH-5 from Dr. Hadaway's direct testimony.

Column 6: Average of Columns 4 and 5.

Column 7: Sum of Columns 3 and 6.

Rocky Mountain Power

Gorman Two-Stage Growth DCF Analysis Considering Long-Term GDP Growth

No.	Company	(1)	(2)	(3)	(4)	(5)
		Gorman Dividend D_0	Gorman Price P_0	Gorman First Stage Growth (EPS)	Second Stage Growth (GDP)	Updated Cost of Equity
1	ALLETE	1.64	45.09	6.25%	6.60%	10.40%
2	Alliant Energy Co.	1.27	38.62	6.22%	6.60%	10.02%
3	CH Energy Group	2.16	46.23	N/A	6.60%	N/A
4	Con. Edison	2.32	45.72	3.48%	6.60%	11.31%
5	DTE Energy Co.	2.12	48.80	4.89%	6.60%	10.89%
6	Energy East Corp.	1.20	25.44	3.83%	6.60%	11.04%
7	IDACORP	1.20	32.18	5.56%	6.60%	10.38%
8	MGE Energy, Inc.	1.39	32.46	N/A	6.60%	N/A
9	NSTAR	1.30	32.57	6.33%	6.60%	10.79%
10	PPL Corporation	1.22	47.86	12.62%	6.60%	10.09%
11	Progress Energy	2.44	45.90	4.58%	6.60%	11.79%
12	SCANA Corp.	1.76	38.47	4.27%	6.60%	10.99%
13	Southern Co.	1.61	34.95	4.71%	6.60%	11.11%
14	Vectren Corp.	1.26	27.06	4.22%	6.60%	11.06%
15	Xcel Energy Inc.	0.92	20.71	5.04%	6.60%	11.01%
	Average	1.59	37.47	5.54%	6.60%	10.8%

Notes:

Columns 1-3: See Gorman Exhibit 227 (MPG-14).

Column 4: See Exhibit SCH-5 from Dr. Hadaway's direct testimony.

Column 5: The internal rate of return implied by the price in column 2 and dividends for 150 periods. The initial dividend shown in column 1 is assumed to grow for the first five periods at the rate in column 3, then at the rate in column 4 for the remaining periods.

Rocky Mountain Power
 Update of Gorman Risk Premium Analysis - Treasury Bond

	(1) TREASURY BOND YIELD	(2) AUTHORIZED ELECTRIC RETURNS	(3) INDICATED RISK PREMIUM
1986	7.78%	13.93%	6.15%
1987	8.59%	12.99%	4.40%
1988	8.96%	12.79%	3.83%
1989	8.45%	12.97%	4.52%
1990	8.61%	12.70%	4.09%
1991	8.14%	12.55%	4.41%
1992	7.67%	12.09%	4.42%
1993	6.59%	11.41%	4.82%
1994	7.37%	11.34%	3.97%
1995	6.88%	11.55%	4.67%
1996	6.71%	11.39%	4.68%
1997	6.61%	11.40%	4.79%
1998	5.58%	11.66%	6.08%
1999	5.87%	10.77%	4.90%
2000	5.94%	11.43%	5.49%
2001	5.49%	11.09%	5.60%
2002	5.43%	11.16%	5.73%
2003	4.96%	10.97%	6.01%
2004	5.05%	10.75%	5.70%
2005	4.65%	10.54%	5.89%
2006	4.91%	10.36%	5.45%
Jun-07	4.89%	10.27%	5.38%
AVERAGE	6.60%	11.64%	5.04%

INDICATED COST OF EQUITY

GORMAN TREASURY BOND YIELD	5.20%
MOODY'S AVG ANNUAL YIELD DURING STUDY	6.60%
INTEREST RATE DIFFERENCE	-1.40%
INTEREST RATE CHANGE COEFFICIENT	-39.46%
ADJUSTMENT TO AVG RISK PREMIUM	0.55%
BASIC RISK PREMIUM	5.04%
INTEREST RATE ADJUSTMENT	0.55%
EQUITY RISK PREMIUM	5.60%
GORMAN TREASURY BOND YIELD	5.20%
INDICATED EQUITY RETURN	10.80%

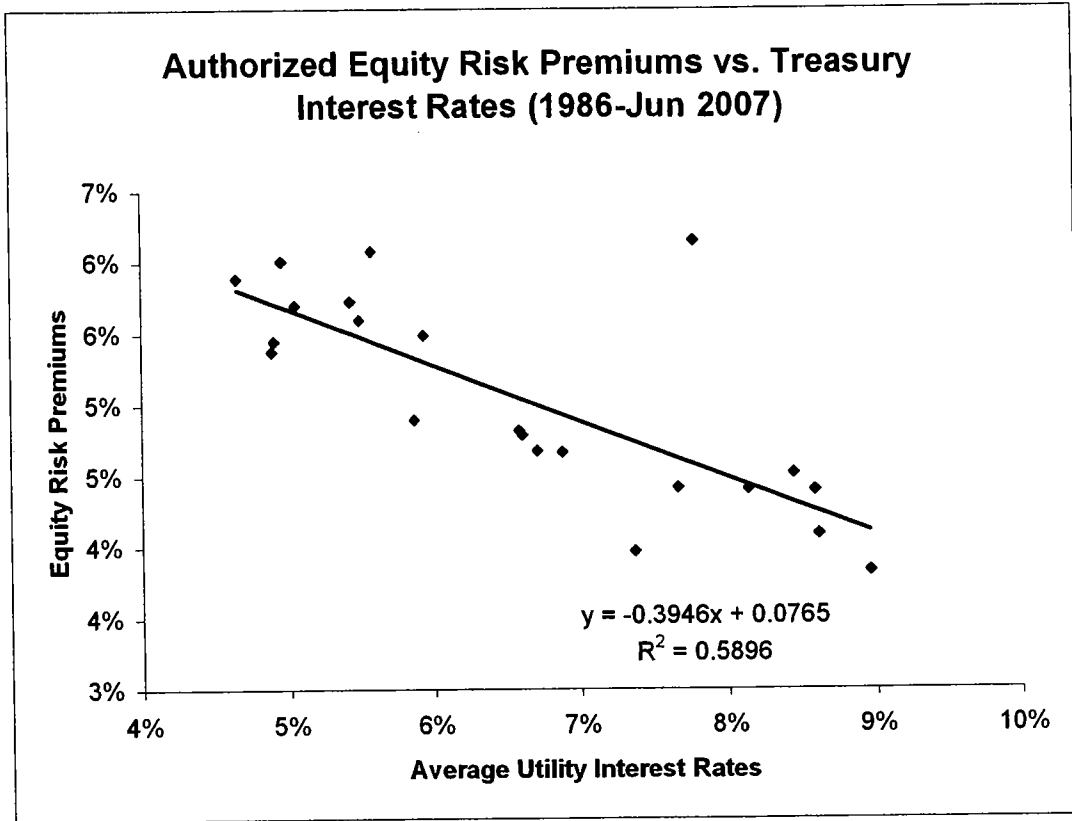
Notes:

Columns 1-3: Gorman Exhibit 229 (MPG-16).

Gorman Direct, page 22, lines 3-9 for base Treasury bond yield.

See regression data on next page for derivation of "Interest Rate Change Coefficient."

Rocky Mountain Power Update of Gorman Risk Premium Analysis - Treasury Bond



Rocky Mountain Power

Update of Gorman Risk Premium Analysis - Utility Bond

	(1) MOODY'S "A" RATED PUBLIC UTILITY BOND YIELD	(2) AUTHORIZED ELECTRIC RETURNS	(3) INDICATED RISK PREMIUM
1986	9.58%	13.93%	4.35%
1987	10.10%	12.99%	2.89%
1988	10.49%	12.79%	2.30%
1989	9.77%	12.97%	3.20%
1990	9.86%	12.70%	2.84%
1991	9.36%	12.55%	3.19%
1992	8.69%	12.09%	3.40%
1993	7.59%	11.41%	3.82%
1994	8.31%	11.34%	3.03%
1995	7.89%	11.55%	3.66%
1996	7.75%	11.39%	3.64%
1997	7.60%	11.40%	3.80%
1998	7.04%	11.66%	4.62%
1999	7.62%	10.77%	3.15%
2000	8.24%	11.43%	3.19%
2001	7.76%	11.09%	3.33%
2002	7.37%	11.16%	3.79%
2003	6.58%	10.97%	4.39%
2004	6.16%	10.75%	4.59%
2005	5.65%	10.54%	4.89%
2006	6.07%	10.36%	4.29%
Jun-07	6.00%	10.27%	4.27%
AVERAGE	7.98%	11.64%	3.67%

INDICATED COST OF EQUITY

GORMAN "A" UTILITY BOND YIELD	6.25%
MOODY'S AVG ANNUAL YIELD DURING STUDY	7.98%
INTEREST RATE DIFFERENCE	<u>-1.73%</u>

INTEREST RATE CHANGE COEFFICIENT	<u>-38.13%</u>
ADJUSTMENT TO AVG RISK PREMIUM	0.66%

BASIC RISK PREMIUM	3.67%
INTEREST RATE ADJUSTMENT	<u>0.66%</u>
EQUITY RISK PREMIUM	<u>4.32%</u>

GORMAN "A" UTILITY BOND YIELD	<u>6.25%</u>
INDICATED EQUITY RETURN	<u><u>10.57%</u></u>

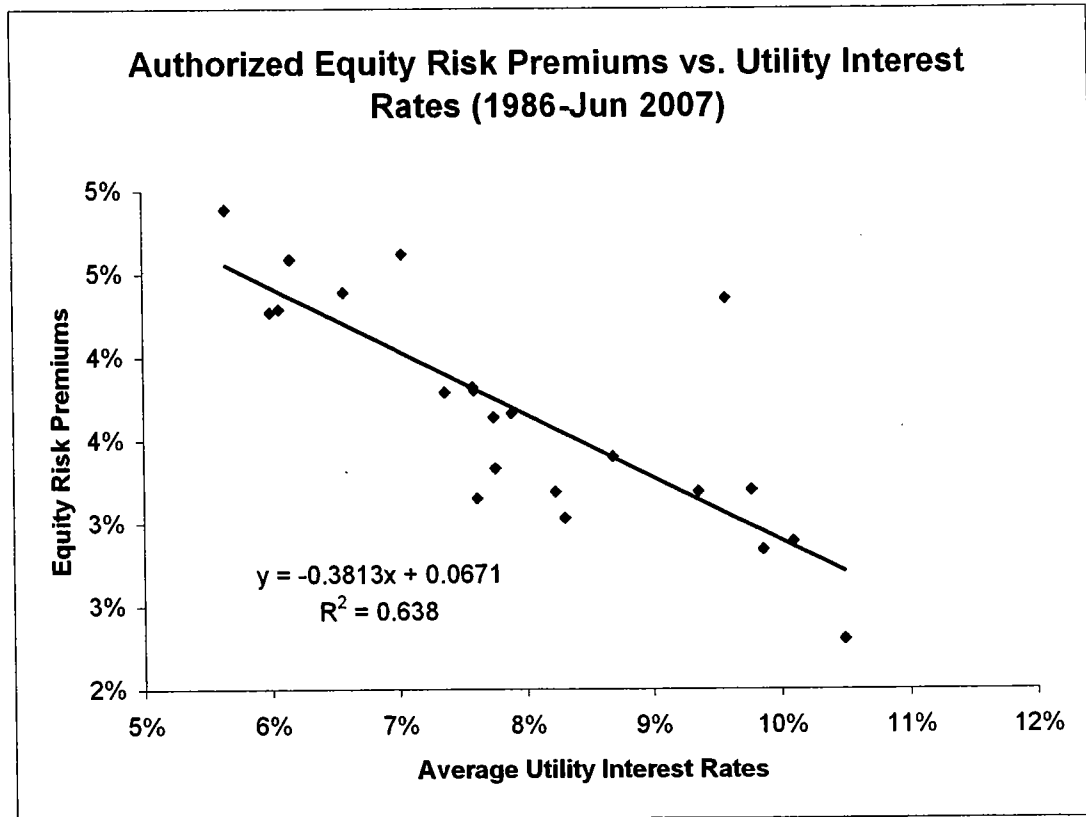
Source:

Columns 1-3: Gorman Exhibit 230 (MPG-17).

Gorman Direct, page 22, lines 10-15 for base "A" utility bond yield.

See regression data on next page for derivation of "Interest Rate Change Coefficient."

Rocky Mountain Power Update of Gorman Risk Premium Analysis - Utility Bond



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Case No. PAC-E-07-05

Exhibit No. 45

Witness: Samuel C. Hadaway

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

ROCKY MOUNTAIN POWER

Exhibit Accompanying Rebuttal Testimony of Samuel C. Hadaway

Updated DCF Results

October 2007

Rocky Mountain Power
Discounted Cash Flow Analysis
Summary Of DCF Model Results

Company	Traditional Constant Growth DCF Model	Constant Growth DCF Model Long-Term GDP Growth	Low Near-Term Growth Two-Stage Growth DCF Model
1 ALLETE	11.1%	10.6%	10.5%
2 Alliant Energy Co.	9.1%	10.2%	9.8%
3 CH Energy Group	8.8%	11.3%	10.7%
4 Con. Edison	9.1%	11.7%	11.0%
5 DTE Energy Co.	9.8%	11.1%	10.7%
6 Energy East Corp.	8.5%	11.4%	11.2%
7 IDACORP	8.0%	10.3%	9.6%
8 MGE Energy, Inc.	10.6%	11.0%	10.4%
9 NSTAR	11.4%	11.0%	11.0%
10 PPL Corporation	13.5%	9.4%	10.3%
11 Progress Energy	9.6%	11.9%	11.2%
12 SCANA Corp.	9.6%	11.4%	11.0%
13 Southern Co.	9.0%	11.3%	10.9%
14 Vectren Corp.	9.4%	11.5%	11.1%
15 Xcel Energy Inc.	9.7%	11.2%	11.0%
GROUP AVERAGE	9.8%	11.0%	10.7%
GROUP MEDIAN	9.6%	11.2%	10.9%

Sources: Value Line Investment Survey, Electric Utility (East), Aug 31, 2007; (Central), Sep 28, 2007; (West), Aug 10, 2007.

NOTE: SEE PAGE 5 OF THIS SCHEDULE FOR FURTHER EXPLANATION OF EACH COLUMN.