CCS 3 1 SR

LONG TERM INTEREST RATE TRENDS

YEAR	BOND YIELD	10 YR TREASURY	20 YR TREASURY	10 YR SPREAD	20 YR SPREAD
1993	7.56%	5.87%	6 29%	1 69%	1 27%
1994	8 30%	7.09%	7.49%	1.21%	0.81%
1995	7 91%	6 57%	6.95%	1.34%	0.96%
1996	7.74%	6.44%	6 83%	1 30%	0.91%
1997	7.63%	6.35%	6.69%	1.28%	0 94%
1998	7.00%	5.26%	5.72%	1.74%	1.28%
1999	7 55%	5 65%	6.20%	1.90%	1.35%
2000	8.14%	6.03%	6 23%	2 11%	1.91%
2001	7.72%	5.02%	5 63%	2 70%	2.09%
2002	7 53%	4 61%	5.43%	2.92%	2 10%
2003	6 61%	4.01%	4.96%	2.60%	1.65%
2004	6.20%	4.27%	5 04%	1.93%	1.16%
2005	5.67%	4.29%	4 64%	1 38%	1.03%
2006	6 08%	4 80%	5.00%	1.28%	1 08%
2007	6.11%	4.63%	4.91%	1.48%	1 20%
AVERAGE	7.18%	5.39%	5 87%	1 79%	1.32%

Sources:
Single A Bond Yield from Dr Hadaway Rebuttal SCH-8R
Treasury Yeilds from Federal Reserve website - www federalreserve gov

The Federal Reserve Board

Open Market Operations

Open market operations--purchases and sales of U S Treasury and federal agency securities--are the Federal Reserve's principal tool for implementing monetary policy The short-term objective for open market operations is specified by the Federal Open Market Committee (FOMC) This objective can be a desired quantity of reserves or a desired price (the federal funds rate) The federal funds rate is the interest rate at which depository institutions lend balances at the Federal Reserve to other depository institutions overnight

The Federal Reserve's objective for open market operations has varied over the years During the 1980s, the focus gradually shifted toward attaining a specified level of the federal funds rate, a process that was largely complete by the end of the decade Beginning in 1994, the FOMC began announcing changes in its policy stance, and in 1995 it began to explicitly state its target level for the federal funds rate Since February 2000, the statement issued by the FOMC shortly after each of its meetings usually has included the Committee's assessment of the risks to the attainment of its long-run goals of price stability and sustainable economic growth

For more information on open market operations, see the article in the *Federal Reserve Bulletin* (102 KB PDF)

Intended federal funds rate

Change and level, 1990 to present

Date	Change (basis points) Increase	Decrease	Level (percent)
2008			
April 30		25	2 00
March 18		75	2 25
January 30		50	3 00
January 22		75	3 50
2007			
December 11		25	4 25
October 31		25	4 50
September 18		50	4 75
2006			
June 29	25		5 25
May 10	25		5 00
March 28	25		4 75

January 31	25		4 50
2005			
December 13	25		4 25
November 1	25		4 00
September 20	25		3 75
August 9	25		3 50
June 30	25		3 25
May 3	25		3 00
March 22	25		2 75
February 2	25		2 50
2004			
December 14	25		2 25
November 10	25		2 00
September 21	25		1 75
August 10	25		1 50
June 30	25		1 25
2003			
June 25		25	1 00
2002			
November 6		50	1 25
2001			
December 11		25	1 75
November 6		50	2 00
October 2		50	2 50
September 17		50	3 00
August 21		25	3 50
June 27		25	3 75
May 15		50	4 00
April 18		50	4 50
March 20		50	5 00
January 31		50	5 50
January 3		50	6 00
2000			
May 16	50		6 50
March 21	25		6 00
February 2	25		5 75
1999			
November 16	25		5 50

August 24	25		5.25
June 30	25		5.00
1998			
November 17		25	4.75
October 15		25	5.00
September 29		25	5.25
1997			
March 25	25		5.50
1996			
January 31		25	5.25
1995			
December 19		25	5.50
July 6		25	5.75
February 1	50		6.00
1994			
November 15	75		5.50
August 16	50		4.75
May 17	50		4.25
April 18	25		3.75
March 22	25		3.50
February 4	25		3.25
1992			
September 4		25	3.00
July 2		50	3.25
April 9		25	3.75
1991			
December 20		50	4.00
December 6		25	4.50
November 6		25	4.75
October 31		25	5.00
September 13		25	5.25
August 6		25	5.50
April 30		25	5.75
March 8		25	6.00
February 1		50	6.25
January 9		25	6.75
1990			

December 18	25	7 00
December 7	25	7 25
November 13	25	7 50
October 29	25	7 75
July 13	25	8 00

A basis point is 1/100 percentage point

REBUTTAL
UPDATE HADAWAY
CONSTANT GROWTH

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LINE NO.	COMPANY	SYMBOL	A DIV	B RECENT PRICE	C YIELD	D GROWTH	E TRADITIONAL DCF ROE	F GDP GROWTH	G GDP GROWTH ROE	H TWO STAGE DCF	I AVG DCF	J 30 YR TREAS CAPM	K 3 MO. TREAS CAPM	L RISK PREM	M MORN STAR RISK PREM	N AVG CAPM RISK PREM
1	ALLETE	ALE	$1.80	$37.13	4.85%	4.17%	9.01%	5.50%	10.35%	10.10%	9.82%	9.30%	8.00%	10.30%	10.00%	9.40%
2	ALLIANT ENERGY	LNT	$1.53	$36.69	4.17%	6.11%	10.28%	5.50%	9.67%	9.93%	9.96%	9.30%	8.00%	10.30%	10.00%	9.40%
3	CH ENERGY GROUP	CHG	$2.16	$38.78	5.57%	1.50%	7.07%	5.50%	11.07%	10.49%	9.54%	9.30%	8.00%	10.30%	10.00%	9.40%
4	CON. EDISON	ED	$2.36	$43.15	5.47%	3.56%	9.03%	5.50%	10.97%	10.33%	10.11%	9.30%	8.00%	10.30%	10.00%	9.40%
5	DTE ENERGY CO	DTE	$2.12	$41.49	5.11%	5.17%	10.28%	5.50%	10.61%	10.25%	10.38%	9.30%	8.00%	10.30%	10.00%	9.40%
6	IDACORP INC	IDA	$1.20	$31.82	3.77%	4.67%	8.44%	5.50%	9.27%	8.71%	8.81%	9.30%	8.00%	10.30%	10.00%	9.40%
7	MGE ENERGY INC	MGEE	$1.45	$32.95	4.40%	6.00%	10.40%	5.50%	9.90%	9.40%	9.90%	9.30%	8.00%	10.30%	10.00%	9.40%
8	NSTAR	NST	$1.53	$31.97	4.79%	6.58%	11.37%	5.50%	10.29%	10.41%	10.69%	9.30%	8.00%	10.30%	10.00%	9.40%
9	PPL CORPORATION	PPL	$1.46	$47.95	3.04%	13.34%	16.38%	5.50%	8.54%	9.66%	11.53%	9.30%	8.00%	10.30%	10.00%	9.40%
10	PROGRESS ENERGY	PGN	$2.49	$44.08	5.65%	4.68%	10.33%	5.50%	11.15%	10.48%	10.65%	9.30%	8.00%	10.30%	10.00%	9.40%
11	SCANA CORP	SCG	$1.92	$38.32	5.01%	4.73%	9.74%	5.50%	10.51%	10.19%	10.15%	9.30%	8.00%	10.30%	10.00%	9.40%
12	SOUTHERN CO.	SO	$1.72	$36.46	4.72%	5.01%	9.72%	5.50%	10.22%	10.17%	10.04%	9.30%	8.00%	10.30%	10.00%	9.40%
13	VECTREN CORP	VVC	$1.35	$26.98	5.00%	4.98%	9.98%	5.50%	10.50%	10.16%	10.22%	9.30%	8.00%	10.30%	10.00%	9.40%
14	XCEL ENERGY	XEL	$0.95	$20.73	4.58%	5.72%	10.30%	5.50%	10.08%	10.02%	10.13%	9.30%	8.00%	10.30%	10.00%	9.40%
15	AVERAGE		$1.72	$36.32	4.72%	5.44%	10.17%	5.50%	10.22%	10.02%	10.14%	9.30%	8.00%	10.30%	10.00%	9.40%

Sources:
Columns A & B: From Dr. Hadaway Rebuttal SCH-7R
Column C: Column A/B
Column D: From Page 2 of this Schedule
Column E: Columne C plus Column D
Column F: Dr. Hadaway Rebuttal SCH-3R 20 Year Average
Column G: Column C plus Column F
Column H: Two stage model employing 5.5% GDP growth
Column I: Average of Columns E, G and H
Column J & K: From Page 3 of this Schedule
Column L & M: Direct Testimony Schedule CCS 3.10
Column N: Average of Columns J through M

	COMPANY	SYMBOL	ZACHS EPS	VALUE LINE EPS	YAHOO
1	ALLETE	ALE	5.00%	2 50%	5 00%
2	ALLIANT ENERGY	LNT	6.00%	6 00%	6 33%
3	CH ENERGY GROUP	CHG		1 50%	n/a
4	CON. EDISON	ED	3.20%	4.50%	2.97%
5	DTE ENERGY CO	DTE	6.00%	4.50%	5.00%
6	IDACORP INC	IDA	6 00%	2.00%	6.00%
7	MGE ENERGY INC	MGEE		6.00%	
8	NSTAR	NST	6 20%	7.50%	6.04%
9	PPL CORPORATION	PPL	12 30%	13.50%	14.22%
10	PROGRESS ENERGY	PGN	4.60%	3.50%	5.95%
11	SCANA CORP	SCG	4.80%	4.00%	5.40%
12	SOUTHERN CO.	SO	4.70%	5 00%	5.32%
13	VECTREN CORP	VVC	5.60%	4 00%	5.33%
14	XCEL ENERGY	XEL	5.20%	5 50%	6.46%

ROCKY MOUNTAIN POWER
COMPARABLE GROUP
CAPITAL ASSET PRICING MODEL UPDATE

LONG TERM CAPM ANALYSIS

RISK FREE RATE	VALUE LINE BETA	LONG TERM RISK PREMIUM	CAPM ROE
4.45%	84.33%	5.75%	9 30%

SHORT TERM CAPM ANALYSIS

RISK FREE RATE	VALUE LINE BETA	LONG TERM RISK PREMIUM	CAPM ROE
1.56%	84.33%	7.60%	8.00%

LONG-TERM CAPM RESULT	9.30%
SHORT-TERM CAPM RESULT	8.50%
MIDPOINT CAPM RESULT	8 90%

MONTH	30 YEAR TREASURY	3-MONTH SECONDARY MKT
Feb-08	4.52%	2.12%
Mar-08	4.39%	1.26%
Apr-08	4 44%	1.29%
AVERAGE	4.45%	1.56%
MAY 1 LEVEL	4.49%	1.42%

Sources:
Lawton Direct Testimony Exhibit CCS 3 9 updated
Treasury Daate www.federalreserve gov