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Public Service Commission of Wisconsin
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Docket 6690-UR-124
Witness: Amy Pepin
September 2, 2015
Cover Page

Wisconsin Public Service Corporation

Exhibit 1 Schedules

Description	Schedule
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Public Service Commission of Wisconsin

Wisconsin Public Service Corporation

Average Capital Structure

Test Year Ending December 31, 2016

Regulatory Basis	($) (000s)	Percent
Utility Common Stock Equity	1,450,820	50.46
Preferred Stock Equity	51,188	1.78
Long-Term Debt	1,300,100	45.22
Short-Term Debt	72,860	2.53
Total Utility Capital	2,874,968	100.00

Financial Basis	($) (000s)	Percent
Common Stock Equity	1,505,417	51.00
Preferred Stock Equity	51,188	1.73
Long-Term Debt	1,300,100	44.05
Long-Term Debt of WPS Leasing	1,051	0.04
Debt Equivalence for Off-Balance Sheet Obligations	21,131	0.72
Short-Term Debt	72,860	2.47
Total Capital	2,951,747	100.00

Cost of Rebalancing WPSC's Capitalization for Off-Balance Sheet Debt Equivalents

1	Debt Equivalent	$	1,000,000
2	Equity to rebalance to 51% equity (Line 1 x 51%)	$	510,000
	Incremental Cost to Ratepayers		
3	At cost of long-term debt estimate of 4.81% and ROE of 10.00%	$	60,659
4	At cost of short-term debt estimate of 1.60% and ROE of 10.00%	$	77,030

Example 1	With 51.0% equity, 10.0% ROE				
	Amount		%	Annual Cost Rate	Weighted Cost
Utility Common Stock Equity	$	1,504,125,537	51.00%	10.00%	5.10%
Preferred Stock Equity	$	51,188,200	1.74%	6.08%	0.11%
Long-Term Debt	$	1,300,100,000	44.08%	4.81%	2.12%
Off-Balance Sheet Obligations	$	21,131,385	0.72%	7.00%	0.05%
Long-Term Debt of WPS Leasing	$	1,051,000	0.04%	7.35%	0.00%
Short-Term Debt	$	71,757,877	2.43%	1.60%	0.04%
	$	2,949,353,999	100.00%		7.4174%

Example 2	With 51.0% equity, 9.9% ROE				
	Amount		%	Annual Cost Rate	Weighted Cost
Utility Common Stock Equity	$	1,504,125,537	51.00%	9.90%	5.05%
Preferred Stock Equity	$	51,188,200	1.74%	6.08%	0.11%
Long-Term Debt	$	1,300,100,000	44.08%	4.81%	2.12%
Off-Balance Sheet Obligations	$	21,131,385	0.72%	7.00%	0.05%
Long-Term Debt of WPS Leasing	$	1,051,000	0.04%	7.35%	0.00%
Short-Term Debt	$	71,757,877	2.43%	1.60%	0.04%
	$	2,949,353,999	100.00%		7.366361%

Example 3	10.0% ROE, reduction in equity % to match weighted cost from example 2				
	Amount		%	Annual Cost Rate	Weighted Cost
Utility Common Stock Equity	$	1,447,013,483	50.03%	10.00%	5.00%
Preferred Stock Equity	$	51,188,200	1.77%	6.08%	0.11%
Long-Term Debt	$	1,300,100,000	44.95%	4.81%	2.16%
Off-Balance Sheet Obligations	$	21,131,385	0.73%	7.00%	0.05%
Long-Term Debt of WPS Leasing	$	1,051,000	0.04%	7.35%	0.00%
Short-Term Debt	$	71,757,877	2.48%	1.60%	0.04%
	$	2,892,241,945	100.00%		7.366361%

MOODY'S PUBLIC UTILITY SEASONED BOND YIELDS

ANNUAL AVERAGES

(Percent)

	MOODY'S BOND RATING GROUPS				YIELD SPREADS		
YEAR:	Aaa	Aa	A	Baa	Aaa/Aa	Aa/A	A/Baa
1985	11.68	12.06	12.47	12.96	0.38	0.41	0.49
1986	8.92	9.30	9.58	10.00	0.38	0.28	0.42
1987	9.52	9.77	10.10	10.53	0.25	0.33	0.43
1988	10.05	10.26	10.49	11.00	0.21	0.23	0.51
1989	9.32	9.56	9.77	9.97	0.24	0.21	0.20
1990	9.45	9.65	9.86	10.06	0.20	0.21	0.20
1991	8.85	9.09	9.36	9.55	0.24	0.27	0.19
1992	8.19	8.55	8.69	8.86	0.36	0.14	0.17
1993	7.29	7.44	7.59	7.91	0.15	0.15	0.32
1994	8.06	8.21	8.30	8.63	0.15	0.09	0.33
1995	7.68	7.77	7.89	8.29	0.09	0.12	0.40
1996	7.48	7.57	7.75	8.17	0.09	0.18	0.42
1997	7.43	7.54	7.60	7.95	0.11	0.06	0.35
1998	6.77	6.91	7.04	7.26	0.14	0.13	0.22
1999	7.21	7.51	7.62	7.88	0.30	0.11	0.26
2000	7.88	8.06	8.24	8.36	0.18	0.18	0.12
2001	7.48	7.58	7.76	8.02	0.10	0.18	0.26
2002	---	7.19	7.37	8.02	---	0.18	0.65
2003	---	6.40	6.58	6.84	---	0.18	0.26
2004	---	6.04	6.16	6.40	---	0.12	0.24
2005	---	5.44	5.65	5.93	---	0.21	0.28
2006	---	5.84	6.07	6.32	---	0.23	0.25
2007	---	5.94	6.07	6.33	---	0.13	0.26
2008	---	6.18	6.53	7.25	---	0.35	0.72
2009	---	5.75	6.04	7.06	---	0.29	1.02
2010	---	5.24	5.46	5.96	---	0.22	0.50
2011	---	4.78	5.04	5.57	---	0.26	0.53
2012	---	3.83	4.13	4.86	---	0.30	0.73
2013	---	4.24	4.48	4.98	---	0.24	0.50
2014	---	4.19	4.28	4.80	---	0.09	0.52
AVERAGES:							
1985-2014	---	7.26	7.47	7.86	---	0.20	0.39
1990-2014	---	6.68	6.86	7.25	---	0.18	0.39
1995-2014	---	6.20	6.39	6.81	---	0.19	0.42
2000-2014	---	5.78	5.99	6.45	---	0.21	0.46
2005-2014	---	5.14	5.38	5.91	---	0.23	0.53
2010-2014	---	4.46	4.68	5.23	---	0.22	0.56

SOURCE: MERGENT (FORMERLY MOODY'S) PUBLIC UTILITY MANUAL AND BOND RECORD. MOODY'S Aaa PUBLIC UTILITY AVERAGE SUSPENDED FROM UTILITY AVERAGE FROM JANUARY, 1984 THRU SEPTEMBER, 1984.

MOODY'S PUBLIC UTILITY SEASONED BOND YIELDS

MONTHLY AVERAGES

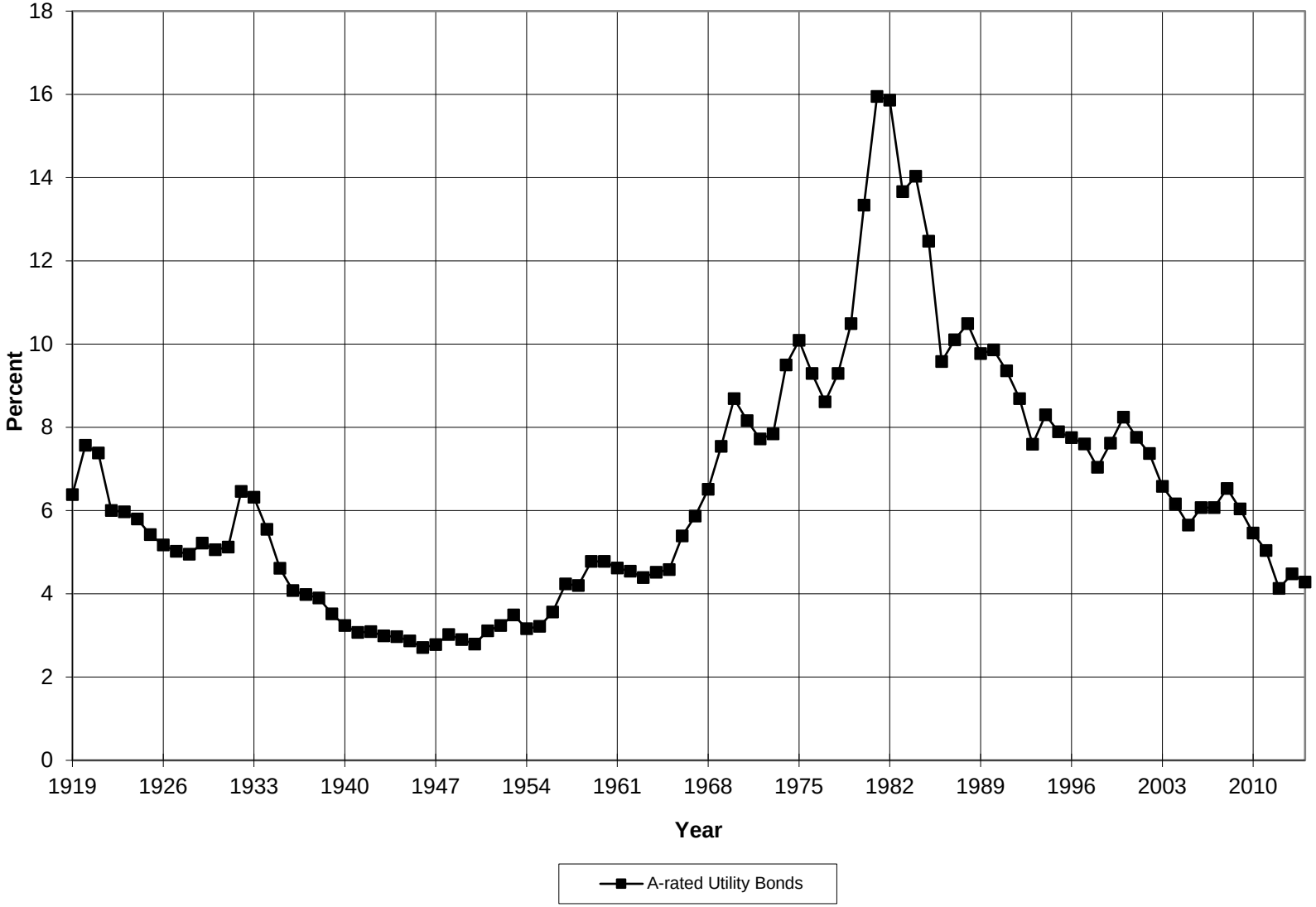
(Percent)

MONTH	Moody's Bond Rating Groups			Yield Spreads	
	Aa	A	Baa	Aa/A	A/Baa
2012					
JANUARY	4.03	4.34	5.06	0.31	0.72
FEBRUARY	4.02	4.36	5.02	0.34	0.66
MARCH	4.16	4.48	5.13	0.32	0.65
APRIL	4.10	4.40	5.11	0.30	0.71
MAY	3.92	4.20	4.97	0.28	0.77
JUNE	3.79	4.08	4.91	0.29	0.83
JULY	3.58	3.93	4.85	0.35	0.92
AUGUST	3.65	4.00	4.88	0.35	0.88
SEPTEMBER	3.69	4.02	4.81	0.33	0.79
OCTOBER	3.68	3.91	4.54	0.23	0.63
NOVEMBER	3.60	3.84	4.42	0.24	0.58
DECEMBER	3.75	4.00	4.56	0.25	0.56
AVG	3.83	4.13	4.86	0.30	0.73
2013					
JANUARY	3.90	4.15	4.66	0.25	0.51
FEBRUARY	3.95	4.18	4.74	0.23	0.56
MARCH	3.95	4.20	4.72	0.25	0.52
APRIL	3.74	4.00	4.49	0.26	0.49
MAY	3.91	4.17	4.65	0.26	0.48
JUNE	4.27	4.53	5.08	0.26	0.55
JULY	4.44	4.68	5.21	0.24	0.53
AUGUST	4.53	4.73	5.28	0.20	0.55
SEPTEMBER	4.58	4.80	5.31	0.22	0.51
OCTOBER	4.48	4.70	5.17	0.22	0.47
NOVEMBER	4.56	4.77	5.24	0.21	0.47
DECEMBER	4.59	4.81	5.25	0.22	0.44
AVG	4.24	4.48	4.98	0.23	0.51
2014					
JANUARY	4.44	4.63	5.09	0.19	0.46
FEBRUARY	4.38	4.53	5.01	0.15	0.48
MARCH	4.40	4.51	5.00	0.11	0.49
APRIL	4.30	4.41	4.85	0.11	0.44
MAY	4.16	4.26	4.69	0.10	0.43
JUNE	4.23	4.29	4.73	0.06	0.44
JULY	4.16	4.23	4.66	0.07	0.43
AUGUST	4.07	4.13	4.65	0.06	0.52
SEPTEMBER	4.18	4.24	4.79	0.06	0.55
OCTOBER	3.98	4.06	4.67	0.08	0.61
NOVEMBER	4.03	4.09	4.75	0.06	0.66
DECEMBER	3.90	3.95	4.70	0.05	0.75
AVG	4.19	4.28	4.80	0.09	0.52
2015					
JANUARY	3.52	3.58	4.39	0.06	0.81
FEBRUARY	3.62	3.67	4.44	0.05	0.77
MARCH	3.67	3.74	4.51	0.07	0.77
APRIL	3.63	3.75	4.51	0.12	0.76

SOURCE: Mergent Bond Record.

Moody's Public Utility Seasoned Bond Yields

Yearly Averages



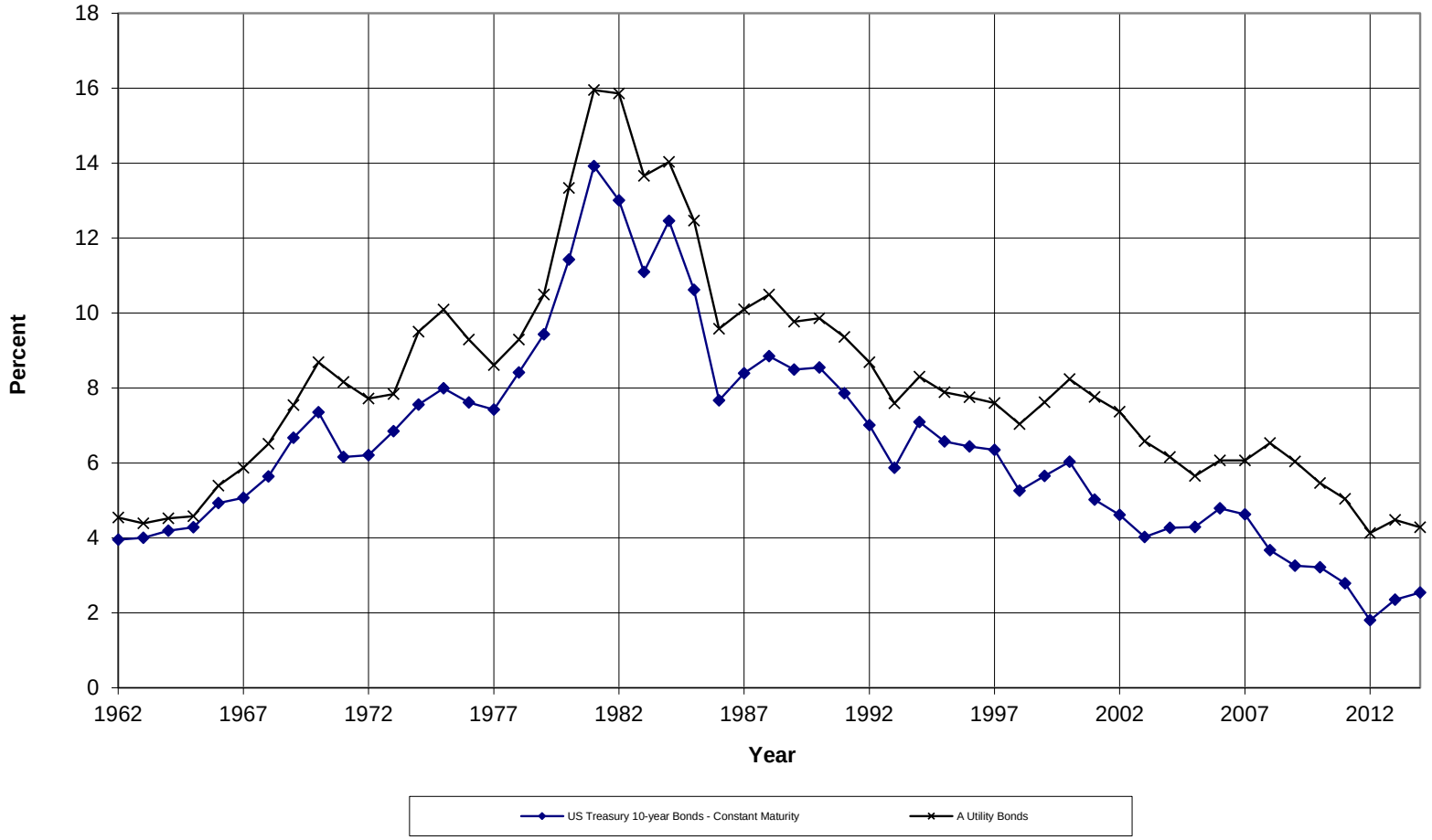
U.S. TREASURY BOND YIELDS AND YIELD SPREADS VS. A UTILITY BONDS

(Percent)

	U.S. TREASURY BONDS			A UTILITY BONDS		
YEAR	HIGH	LOW	ANNUAL	ANNUAL	SPREAD	%SPREAD
	(a)	(b)	(c)	(d)	(e)	(f)
1980	12.84	9.78	11.43	13.34	1.91	16.71%
1981	15.32	12.57	13.92	15.95	2.03	14.58%
1982	14.59	10.54	13.01	15.86	2.85	21.91%
1983	11.85	10.38	11.10	13.66	2.56	23.06%
1984	13.56	11.50	12.46	14.03	1.57	12.60%
1985	11.86	9.26	10.62	12.47	1.85	17.42%
1986	9.19	7.11	7.67	9.58	1.91	24.90%
1987	9.52	7.08	8.39	10.10	1.71	20.38%
1988	9.26	8.21	8.85	10.49	1.64	18.53%
1989	9.36	7.84	8.49	9.77	1.28	15.08%
1990	8.79	8.08	8.55	9.86	1.31	15.32%
1991	8.28	7.09	7.86	9.36	1.50	19.08%
1992	7.54	6.42	7.01	8.69	1.68	23.97%
1993	6.60	5.33	5.87	7.59	1.72	29.30%
1994	7.96	5.75	7.09	8.30	1.21	17.07%
1995	7.78	5.71	6.57	7.89	1.32	20.09%
1996	6.91	5.65	6.44	7.75	1.31	20.34%
1997	6.89	5.81	6.35	7.60	1.25	19.69%
1998	5.65	4.53	5.26	7.04	1.78	33.84%
1999	6.28	4.72	5.65	7.62	1.97	34.87%
2000	6.66	5.24	6.03	8.24	2.21	36.65%
2001	5.39	4.57	5.02	7.76	2.74	54.58%
2002	5.28	3.87	4.61	7.37	2.76	59.87%
2003	4.45	3.33	4.02	6.58	2.56	63.68%
2004	4.73	3.83	4.27	6.16	1.89	44.26%
2005	4.54	4.00	4.29	5.65	1.36	31.70%
2006	5.11	4.42	4.79	6.07	1.28	26.72%
2007	5.10	4.10	4.63	6.07	1.44	31.10%
2008	4.10	2.42	3.67	6.53	2.86	77.93%
2009	3.72	2.52	3.26	6.04	2.78	85.28%
2010	3.85	2.54	3.21	5.46	2.25	69.87%
2011	3.58	1.98	2.79	5.04	2.25	80.92%
2012	2.17	1.53	1.80	4.13	2.33	129.13%
2013	2.90	1.76	2.35	4.48	2.13	90.64%
2014	2.86	2.21	2.54	4.28	1.74	68.50%

SOURCE: Federal Reserve Statistical Release and Mergent's Bond Record
NOTE: U.S. Treasury Bonds 10-year constant maturity.

U.S. Treasury Bond Yields
vs. A Utility Bond Yields



U.S. TREASURY BOND YIELDS AND YIELD SPREADS VS. A UTILITY BONDS

(Percent)

	U.S. TREASURY BONDS	A UTILITY BONDS		
MONTH	MONTHLY	MONTHLY	SPREAD	% SPREAD
JANUARY, 2012	1.97	4.34	2.28	60.96%
FEBRUARY	1.97	4.36	2.47	66.04%
MARCH	2.17	4.48	2.70	76.92%
APRIL	2.05	4.40	2.61	70.92%
MAY	1.80	4.20	2.39	61.60%
JUNE	1.62	4.08	2.28	55.61%
JULY	1.53	3.93	2.39	59.60%
AUGUST	1.68	4.00	2.48	63.75%
SEPTEMBER	1.72	4.02	2.80	75.88%
OCTOBER	1.75	3.91	3.75	98.43%
NOVEMBER	1.65	3.84	4.07	115.30%
DECEMBER	1.72	4.00	4.12	170.25%
JANUARY, 2013	1.91	4.15	3.87	153.57%
FEBRUARY	1.98	4.18	3.43	119.51%
MARCH	1.96	4.20	3.60	127.66%
APRIL	1.76	4.00	3.55	121.16%
MAY	1.93	4.17	3.20	97.26%
JUNE	2.30	4.53	2.48	66.67%
JULY	2.58	4.68	2.10	81.40%
AUGUST	2.74	4.73	1.99	72.63%
SEPTEMBER	2.81	4.80	1.99	70.82%
OCTOBER	2.62	4.70	2.08	79.39%
NOVEMBER	2.72	4.77	2.05	75.37%
DECEMBER	2.90	4.81	1.91	65.86%
JANUARY, 2014	2.86	4.63	1.77	61.89%
FEBRUARY	2.71	4.53	1.82	67.16%
MARCH	2.72	4.51	1.79	65.81%
APRIL	2.71	4.41	1.70	62.73%
MAY	2.56	4.26	1.70	66.41%
JUNE	2.60	4.29	1.69	65.00%
JULY	2.54	4.23	1.69	66.54%
AUGUST	2.42	4.13	1.71	70.66%
SEPTEMBER	2.53	4.24	1.71	67.59%
OCTOBER	2.30	4.06	1.76	76.52%
NOVEMBER	2.33	4.09	1.76	75.54%
DECEMBER	2.21	3.95	1.74	78.73%
JANUARY, 2015	1.88	3.58	1.70	90.43%
FEBRUARY	1.98	3.67	1.69	85.35%
MARCH	2.04	3.74	1.70	83.33%
APRIL	1.94	3.75	1.81	93.30%

SOURCE: Federal Reserve Statistical Release and Mergent's Bond Record
NOTE: U.S. Treasury Bonds 10-year constant maturity.

SHORT TERM MARKET YIELDS

(Percent)

DATE	PRIME LENDING RATE	COMMERCIAL PAPER (1 Month)	COMMERCIAL PAPER (3 Month)	LONDON INTERBANK OFFER RATE (1 Month)	LONDON INTERBANK OFFER RATE (3 Month)
2012					
JANUARY	3.25	N/A	0.14	0.30	0.58
FEBRUARY	3.25	0.09	0.13	0.26	0.53
MARCH	3.25	0.05	0.18	0.24	0.48
APRIL	3.25	N/A	0.15	0.24	0.47
MAY	3.25	0.11	0.15	0.24	0.47
JUNE	3.25	0.08	0.17	0.24	0.47
JULY	3.25	0.14	0.19	0.25	0.46
AUGUST	3.25	0.14	0.18	0.24	0.44
SEPTEMBER	3.25	0.05	0.16	0.23	0.41
OCTOBER	3.25	0.13	0.14	0.22	0.35
NOVEMBER	3.25	0.14	0.16	0.21	0.31
DECEMBER	3.25	0.07	0.15	0.21	0.31
2013					
JANUARY	3.25	0.08	0.14	0.21	0.31
FEBRUARY	3.25	0.09	0.10	0.20	0.30
MARCH	3.25	0.05	0.11	0.20	0.28
APRIL	3.25	0.10	0.12	0.20	0.28
MAY	3.25	0.07	0.11	0.20	0.28
JUNE	3.25	0.06	0.10	0.19	0.28
JULY	3.25	0.05	0.12	0.19	0.27
AUGUST	3.25	0.05	0.11	0.19	0.27
SEPTEMBER	3.25	0.05	0.11	0.18	0.26
OCTOBER	3.25	N/A	0.09	0.17	0.24
NOVEMBER	3.25	N/A	0.11	0.17	0.24
DECEMBER	3.25	N/A	0.12	0.17	0.24
2014					
JANUARY	3.25	0.05	N/A	0.16	0.24
FEBRUARY	3.25	0.04	N/A	0.16	0.23
MARCH	3.25	N/A	0.12	0.16	0.24
APRIL	3.25	N/A	0.09	0.15	0.23
MAY	3.25	N/A	0.10	0.15	0.22
JUNE	3.25	0.05	0.11	0.15	0.23
JULY *	3.25	N/A	0.12	0.15	0.23
AUGUST	3.25	0.06	0.12	0.16	0.24
SEPTEMBER	3.25	N/A	0.20	0.15	0.23
OCTOBER	3.25	N/A	N/A	0.15	0.23
NOVEMBER	3.25	N/A	N/A	N/A	N/A
DECEMBER	3.25	N/A	N/A	0.16	0.24
2015					
JANUARY	3.25	N/A	N/A	0.17	0.26
FEBRUARY	3.25	N/A	N/A	0.17	0.26
MARCH	3.25	N/A	N/A	0.18	0.26
APRIL	3.25	N/A	N/A	0.18	0.27
MAY	3.25	0.08	N/A	0.18	0.28
JUNE	0.00	0.00	0.00	0.00	0.00
JULY	0.00	0.00	0.00	0.00	0.00
AUGUST	0.00	0.00	0.00	0.00	0.00

SOURCE: Wall Street Journal

NOTE: Based on first Friday of each month, unless noted otherwise.

Historical Rates of Inflation

(Based on Consumer Price Index)

Year	Rate of Change	Year	Rate of Change
1964	1.31%	1990	5.36%
1965	1.72%	1991	4.20%
1966	2.86%	1992	3.00%
1967	2.88%	1993	3.00%
1968	4.20%	1994	2.60%
1969	5.37%	1995	2.80%
1970	5.92%	1996	2.90%
1971	4.30%	1997	2.30%
1972	3.30%	1998	1.60%
1973	6.23%	1999	2.20%
1974	10.97%	2000	3.40%
1975	9.14%	2001	2.80%
1976	5.77%	2002	1.60%
1977	6.45%	2003	2.30%
1978	7.66%	2004	2.70%
1979	11.26%	2005	3.40%
1980	13.52%	2006	3.20%
1981	10.37%	2007	2.90%
1982	6.13%	2008	3.70%
1983	3.22%	2009	-0.40%
1984	4.26%	2010	1.60%
1985	3.55%	2011	3.20%
1986	1.92%	2012	2.10%
1987	3.65%	2013	1.50%
1988	4.08%	2014	1.60%
1989	4.80%		

Forecasted Annual Rates of Inflation

(Based on Consumer Price Index)

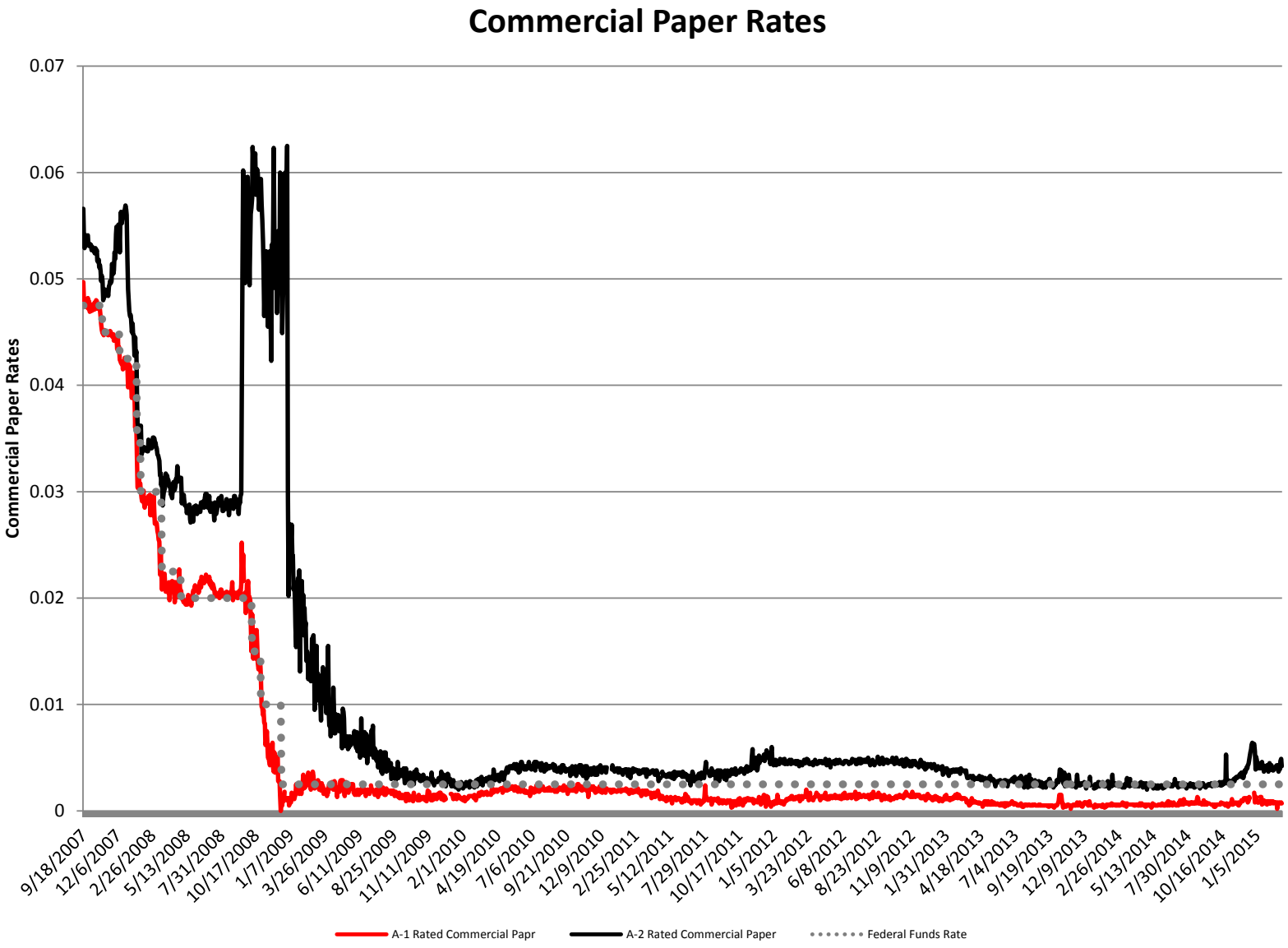
Forecasting Source	2015	2016
IHS Global Insight U.S. Economic Outlook, May 2015	-0.20%	2.00%
Blue Chip Economic Indicators, May 2015	0.20%	2.20%
Staff Estimate, May 2015	0.00%	2.10%

BLUE CHIP FINANCIAL FORECAST

(Percent)

		WEEK ENDING 5/29/2015	3RD QTR 2015	4TH QTR 2015	1ST QTR 2016	2ND QTR 2016	3RD QTR 2016	4TH QTR 2016	2016 Average	
		7/24/2015								
Prime Rate	June 2015	3.25	3.30	3.50	3.80	4.10	4.50		4.13	
	August 2015	3.25	3.30	3.30	3.80	4.10	4.40	4.70	4.25	
Federal Funds Rate	June 2015	0.12	0.30	0.50	0.80	1.10	1.40		1.10	
	August 2015	0.13	0.20	0.50	0.70	1.00	1.30	1.60	1.15	
LIBOR (3-month)	June 2015	0.29	0.40	0.70	1.00	1.40	1.70		1.37	
	August 2015	0.30	0.40	0.60	1.00	1.30	1.60	1.90	1.45	
A-1/P-1 Commercial Paper Rate	June 2015	0.08	0.30	0.50	0.90	1.20	1.50		1.20	
	August 2015	0.08	0.20	0.40	0.80	1.10	1.50	1.80	1.30	
A-2/P-2 Commercial Paper Rate	June 2015	0.48	0.70	0.90	1.30	1.60	1.90		1.60	**1.60**
	August 2015	0.48	0.60	0.80	1.20	1.50	1.90	2.20	1.70	
T-Bill Yield (3-month)	June 2015	0.02	0.20	0.50	0.80	1.10	1.40		1.10	
	August 2015	0.04	0.10	0.40	0.70	1.00	1.30	1.60	1.15	
T-Bill Yield (6 month)	June 2015	0.08	0.30	0.60	0.90	1.20	1.50		1.20	
	August 2015	0.13	0.20	0.50	0.80	1.10	1.40	1.70	1.25	
T-Bill Yield (1 year)	June 2015	0.24	0.50	0.80	1.10	1.40	1.70		1.40	
	August 2015	0.33	0.40	0.70	1.00	1.30	1.60	1.90	1.45	
T-Note Yield (5 year)	June 2015	1.54	1.70	2.00	2.20	2.40	2.70		2.43	
	August 2015	1.68	1.70	1.90	2.20	2.40	2.60	2.80	2.50	
T-Note Yield (10 year)	June 2015	2.17	2.30	2.50	2.70	2.90	3.10		2.90	
	August 2015	2.32	2.40	2.60	2.80	2.90	3.10	3.30	3.03	
T-Bond Yield (30 year)	June 2015	2.94	3.00	3.20	3.40	3.60	3.70		3.57	
	August 2015	3.03	3.10	3.30	3.40	3.60	3.80	3.90	3.68	

Source: Blue Chip Financial Forecasts


Commercial Paper Rates
Commercial Paper Rates
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10/16/2014
1/5/2015
A-1 Rated Commercial Papr
A-2 Rated Commercial Paper
Federal Funds Rate

WPSC

Current Yield on Long-term Debt

Issuance Date	Date Due	Coupon Rate	FINRA Bond Symbol	Years to Maturity	6/23/2015 Yield	Last Traded
12/11/2008	12/1/2015	6.250%	WEC.HD	0.44	1.089%	6/18/2015
12/1/2008	12/1/2015	6.375%	TEG3674574	0.44		
12/29/2006	1/15/2017	5.250%	MGEE3669595	1.57		
11/1/2007	11/1/2017	5.650%	WPS.GL	2.36		
6/13/2013	6/15/2018	1.700%	WEC4017356	2.98	1.592%	6/22/2015
7/15/2009	7/15/2019	5.000%	LNT.HF	4.06	2.122%	6/17/2015
12/15/2009	12/15/2019	4.250%	WEC.HE	4.48	2.122%	6/23/2015
6/15/2010	6/15/2020	4.600%	LNT3683291	4.98	2.351%	2/18/2015
9/13/2011	9/15/2021	2.950%	WEC.HG	6.24	2.546%	6/19/2015
11/19/2012	11/15/2022	2.250%	LNT3930859	7.40	3.077%	6/23/2015
7/1/1993	7/1/2023	7.125%	WPS.GD	8.03		
5/20/2015	6/1/2025	3.100%	WEC4247203	9.95	3.162%	6/22/2015
2/15/1993	2/15/2028	7.700%	MGEE3698025	12.66	7.488%	4/23/2015
6/1/1998	6/1/2028	6.500%	WEC.GJ	12.95	3.519%	5/5/2015
9/9/2003	9/1/2028	6.120%	MGEE3704035	13.20		
12/1/1998	12/1/2028	6.080%	TEG3706030	13.45		
4/4/2002	4/1/2032	7.120%	MGEE3698033	16.79		
5/6/2003	5/15/2033	5.625%	WEC.GV	17.91	4.070%	6/22/2015
8/2/2004	7/31/2034	6.250%	LNT.GZ	19.12	5.706%	2/10/2006
11/7/2006	12/1/2036	5.700%	WEC3669215	21.46	3.594%	4/16/2015
12/1/2006	12/1/2036	5.550%	TEG3669400	21.46		
8/15/2007	8/15/2037	6.375%	LNT.HB	22.16	4.514%	6/22/2015
9/19/2007	9/15/2037	6.247%	MGEE3671657	22.25		
10/6/2008	10/1/2038	7.600%	LNT.HC	23.29	4.409%	5/11/2015
12/3/2012	12/1/2042	3.671%	TEG3936076	27.46		
12/11/2012	12/15/2042	3.650%	WEC3940630	27.50	4.315%	6/17/2015
5/15/2014	6/1/2044	4.250%	WEC4125803	28.96	4.211%	6/3/2015
10/14/2014	10/15/2044	4.100%	LNT4172093	29.33	4.328%	6/18/2015
11/14/2013	11/1/2044	4.752%	TEG4071296	29.38		
12/5/1995	12/1/2095	6.875%	WEC.GH	80.50	5.108%	5/6/2015
		Est. of current yield for debt:		20-year	**3.789%**	
				30-year	**4.338%**	

2015 New Long-Term Debt

Blue Chip Financial Forecast - June 1, 2015	
Corporate Aaa Bond Forecasted Yields	
1st Qrt 2015	3.6%
2nd Qrt 2015	3.8%
3rd Qrt 2015	4.0%
4th Qrt 2015	4.2%
Corporate Baa Bond Forecasted Yields	
1st Qrt 2015	4.5%
2nd Qrt 2015	4.7%
3rd Qrt 2015	4.9%
4th Qrt 2015	5.0%

Global Insight U.S. Economic Outlook - June 2015	
Seasoned Aaa Corporate Bonds for 2015	
Seasoned Baa Corporate Bonds for 2015	
Seasoned Aa Public Utility Bonds for 4Q 2015	4.56%
Seasoned Aa Public Utility Bonds for 2Q 2015	3.92%

Commission staff's 2015 new debt cost	
WPSC's Moody's Rating of Aa2	**4.98%**

Discounted Cash Flow Model

Sample Companies

Utility Stocks

	Company	Stock Symbol	Utility Type	Value Line Safety Rank	Beta	Stock Price	Dividend	Yield	Analyst Growth	Stock Index
1	AGL Resources	GAS	Gas	1	0.80	$50.37	$ 2.04		no data	S&P 400 MidCap
2	Allete Inc.	ALE	Diversified	2	0.80	$50.35	$ 2.02	4.01%	6.00%	S&P 600 SmallCap
3	Alliant Energy	LNT	Diversified	2	0.80	$61.30	$ 2.20	3.59%	5.45%	S&P 400 MidCap
4	Ameren Corp	AEE	Diversified	2	0.80	$40.23	$ 1.64	4.08%	5.85%	S&P 500
5	American Electric Power	AEP	Elect	2	0.70	$56.29	$ 2.12	3.77%	5.10%	S&P 500
6	Atmos Energy	ATO	Gas	1	0.90	$54.02	$ 1.56	2.89%	7.00%	S&P 600 SmallCap
7	Avista Corp	AVA	Diversified	2	0.80	$32.00	$ 1.32	4.13%	5.00%	S&P 600 SmallCap
8	Black Hills Corp	BKH	Elec	2	1.00	$47.78	$ 1.62	3.39%	7.00%	S&P 400 MidCap
9	Centerpoint Energy	CNP	Diversified	2	0.80	$20.37	$ 0.99	4.86%	1.91%	S&P 500
10	Cleco Corp	CNL	Elec	1	0.80	$54.25	$ 1.60	2.95%	3.00%	S&P 600 SmallCap
11	CMS Energy Corporation	CMS	Diversified	2	0.80	$34.14	$ 1.16	3.40%	6.73%	S&P 500
12	Consolidated Edison	ED	Diversified	1	0.60	$61.84	$ 2.60	4.20%	2.48%	S&P 500
13	Delitra Natural Gas Company	DGAS	Gas	3	0.60	$20.63	$ 0.80	3.88%	4.00%	
14	Dominion Resources	D	Elec	2	0.70	$70.52	$ 2.59	3.67%	5.89%	S&P 500
15	DTE Energy	DTE	Elec	2	0.80	$79.23	$ 2.76	3.48%	4.51%	S&P 500
16	Duke Energy	DUK	Elec	2	0.60	$75.73	$ 3.18	4.20%	4.49%	S&P 500
17	Edison International	EIX	Elec	2	0.80	$60.81	$ 1.67	2.75%	0.70%	S&P 500
18	El Paso Electric	EE	Elec	2	0.80	$36.37	$ 1.12	3.08%	7.00%	S&P 600 SmallCap
19	Empire District Electric	EDE	Elec	2	0.70	$23.34	$ 1.04	4.46%	5.00%	None
20	Entergy Corp	ETR	Elec	3	0.70	$76.47	$ 3.32	4.34%	-3.05%	S&P 500
21	Eversourse Energy(Formerly NI	ES	Diversified	2	0.75	$49.25	$ 1.67	3.39%	6.60%	S&P 400 MidCap
22	Exelon Corp	EXC	Diversified	3	0.70	$33.83	$ 1.24	3.67%	6.81%	S&P 500
23	FirstEnergy	FE	Elec	3	0.70	$35.68	$ 1.44	4.04%	-0.64%	S&P 500
24	Gas Natural Inc	EGAS	Gas	3	0.60	$10.00	$ 0.54		no data	
25	Great Plains Energy	GXP	Elec	3	0.90	$26.07	$ 0.98	3.76%	6.90%	S&P 400 MidCap
26	Hawaiian Electric Industries	HE	Elec	2	0.80	$30.54	$ 1.24	4.06%	3.80%	S&P 400 MidCap
27	Idacorp	IDA	Elec	2	0.80	$59.47	$ 1.88	3.16%	4.00%	S&P 400 MidCap
28	Integrys Energy Group Inc.	TEG	Diversified	2	0.80	$71.91	$ 2.72	3.78%	5.00%	S&P 500
29	Laclede Group	LG	Gas	2	0.70	$53.51	$ 1.84	3.44%	4.67%	S&P 600 SmallCap
30	MGE Energy, Inc.	MGEE	Diversified	1	0.80	$38.73	$ 1.13	2.92%	4.00%	None
31	New Jersey Resources Corp	NJR	Gas	1	0.80	$30.07	$ 0.90	2.99%	6.00%	S&P 600 SmallCap
32	NextEra Energy Inc.	NEE	Elec	2	0.80	#####	$ 3.08	3.01%	6.44%	S&P 500
33	Nisource Inc	NI	Diversified	3	0.90	$47.18	$ 1.04	2.20%	10.40%	S&P 500
34	Northwest Natural Gas	NWN	Gas	1	0.70	$44.70	$ 1.86	4.16%	4.00%	S&P 600 SmallCap
35	Northwestern Energy	NWE	Diversified	3	0.80	$52.02	$ 1.92	3.69%	5.00%	
36	OGE Energy	OGE	Elec	1	0.90	$31.50	$ 1.00	3.17%	4.00%	S&P 400 MidCap
37	Otter Tail Corp	OTTR	Elec	3	0.90	$27.02	$ 1.23	4.55%	6.00%	None
38	PEPCO Holdings	POM	Elec	3	0.70	$27.25	$ 1.08	3.96%	7.80%	S&P 500
39	PG&E Corp.	PCG	Diversified	3	0.70	$53.47	$ 1.82	3.40%	4.71%	S&P 500
40	Piedmont Natural	PNY	Gas	2	0.80	$37.29	$ 1.32	3.54%	5.00%	S&P 600 SmallCap
41	Pinnacle West Capital	PNW	Elec	1	0.70	$60.92	$ 2.38	3.91%	4.70%	S&P 500
42	PNM Resources	PNM	Diversified	3	0.90	$26.59	$ 0.80	3.01%	8.56%	S&P 400 MidCap
43	Portland General	POR	Elec	2	0.80	$34.96	$ 1.20	3.43%	4.72%	None
44	PPL Corp	PPL	Elec	3	0.70	$34.71	$ 1.49	4.29%	0.85%	S&P 500
45	Public Service Enterprise Grou	PEG	Diversified	1	0.80	$42.63	$ 1.56	3.66%	2.85%	S&P 500
46	RGC Resources Inc	RGCO	Gas	3	0.40	$20.68	$ 0.77		no data	
47	SCANA Corp	SCG	Diversified	2	0.80	$53.16	$ 2.18	4.10%	4.30%	S&P 500
48	Sempra Energy	SRE	Gas	2	0.80	######	$ 2.80	2.61%	7.93%	S&P 500
49	South Jersey Industries	SJI	Gas	2	0.90	$26.39	$ 2.01	7.62%	6.00%	S&P 600 SmallCap
50	Southern Co	SO	Elec	2	0.60	$43.57	$ 2.17	4.98%	3.32%	S&P 500
51	Southwest Gas Corp	SWX	Gas	3	0.90	$54.05	$ 1.62	3.00%	4.00%	S&P 600 SmallCap
52	Star Gas Partners	SGU	Gas	3	0.60	$ 8.58	$ 0.38		no data	
53	TECO Energy	TE	Elec	2	0.90	$18.85	$ 0.90	4.77%	9.20%	S&P 500
54	UGI Corp	UGI	Diversified	2	1.00	$37.40	$ 0.91	2.43%	6.20%	S&P 400 MidCap
55	UIL Holdings	UIL	Elec	2	0.80	$50.69	$ 1.73	3.41%	7.79%	S&P 600 SmallCap
56	Unitil Corp	UTL	Elec	3	0.60	$33.84	$ 1.40	4.14%	1.90%	
57	Vectren Corp	VVC	Diversified	2	0.80	$42.57	$ 1.52	3.57%	5.50%	S&P 400 MidCap
58	Westar Energy	WR	Diversified	2	0.75	$36.67	$ 1.44	3.93%	3.40%	S&P 400 MidCap
59	WGL Holdings	WGL	Gas	1	0.80	$57.54	$ 1.85	3.22%	6.50%	S&P 400 MidCap
60	Wisconsin Energy	WEC	Diversified	1	0.70	$48.28	$ 1.69	3.50%	5.84%	S&P 500
61	Xcel Energy Inc.	XEL	Elec	1	0.70	$34.05	$ 1.28	3.76%	4.58%	S&P 500
	MEDIAN			2	0.80			3.67%	5.00%	Short-Term Growth
									2.50%	Long-Term Growth

Non-utility Stocks

	Company	Stock Symbol	Value Line Safety Rank	Beta	Stock Price	Dividend	Yield	Analyst Growth
1	3M Corp	MMM	1	1.00	$ 159.08	$ 4.10	2.58%	8.65%
2	AB Inbev	BUD	1	1.00	$ 120.56	$ 4.48	3.72%	6.70%
3	Abbott Labs	ABT	1	1.10	$ 48.60	$ 0.96	1.98%	9.70%
4	Accentrue PLC	ACN	1	1.00	$ 95.88	$ 2.04	2.13%	9.97%
5	Ace Ltd.	ACE	1	0.90	$ 106.48	$ 2.68	2.52%	6.58%
6	Amdocs Limited	DOX	1	0.90	$ 54.85	$ 0.68	1.24%	6.47%
7	AirGas, Inc.	ARG	1	0.90	$ 101.94	$ 2.40	2.35%	9.47%
8	Air Products	APD	1	1.10	$ 146.78	$ 3.24	2.21%	11.88%
9	Alleghany Corp.	Y	1	0.80	$ 475.35		No Dividends	
10	Allstate Corp.	ALL	1	0.90	$ 67.65	$ 1.20	1.77%	6.87%
11	AmerisourceBergen	ABC	1	0.75	$ 112.56	$ 1.16	1.03%	17.18%
12	Amgen	AMGN	1	0.80	$ 156.26	$ 3.16	2.02%	11.17%
13	Aon Plc	AON	1	0.90	$ 101.22	$ 1.20	1.19%	11.65%
14	Apple Inc.	AAPL	1	0.90	$ 130.28	$ 2.08	1.60%	13.20%
15	Arch Capital Group	ACGL	1	0.70	$ 63.89		No Dividends	
16	AT&T	T	1	0.80	$ 34.54	$ 1.88	5.44%	4.48%
17	Automatic Data Processing	ADP	1	0.90	$ 85.51	$ 1.96	2.29%	10.40%
18	Bank of Nova Scotia	BNS.TO	1	0.80	$ 66.52		No Dividends	
19	Bard (C.R.)	BCR	1	0.80	$ 170.32	$ 0.88	0.52%	10.79%
20	Baxter International	BAX	1	0.90	$ 66.61	$ 2.08	3.12%	3.98%
21	Becton, Dickinson & Company	BDX	1	0.80	$ 140.51	$ 2.40	1.71%	10.03%
22	Bed Bath & Beyond	BBBY	1	0.90	$ 71.32		No Dividends	
23	Berkley (W.R.)	WRB	1	0.80	$ 49.00	$ 0.44	0.90%	7.30%
24	Bemis Co.	BMS	1	0.80	$ 45.94	$ 1.12	2.44%	7.62%
25	Berkshire Hathaway "B"	BRK-B	1	0.80	$ 143.00		No Dividends	
26	Bio-Techne Corp.	TECH	1	0.80	$ 101.26	$ 1.28	1.26%	12.50%
27	Boeing Company	BA	1	1.10	$ 140.52	$ 3.64	2.59%	12.38%
28	Bristol-Myers Sq.	BMY	1	0.80	$ 64.60	$ 1.48	2.29%	16.66%
29	Brown-Forman B	BF-B	1	0.90	$ 93.96	$ 1.40		no data
30	Cdn. Imperial Bank	CM.TO	1	0.70	$ 94.90		No Dividends	
31	Canadian Tire	CTC-A.TO	1	0.70	$ 128.95		No Dividends	
32	Cardinal Health	CAH	1	0.90	$ 88.17	$ 1.55	1.76%	10.73%
33	Chevron	CVX	1	1.10	$ 103.00	$ 4.28	4.16%	-3.27%
34	Chubb Corp.	CB	1	0.80	$ 97.50	$ 2.28	2.34%	4.32%
35	Church and Dwight	CHD	1	0.70	$ 83.97	$ 1.34	1.60%	9.55%
36	Coca-Cola	KO	1	0.70	$ 40.96	$ 1.32	3.22%	4.83%
37	Colgate-Palmolive	CL	1	0.70	$ 66.79	$ 1.52	2.28%	8.03%
38	Commerce Bancshares	CBSH	1	0.90	$ 44.61	$ 0.90	2.02%	8.00%
39	Conagra Foods Inc.	CAG	1	0.70	$ 38.61	$ 1.00	2.59%	8.47%
40	ConocoPhillips	COP	1	1.20	$ 63.68	$ 2.92	4.59%	-0.88%
41	Costco Wholesale	COST	1	0.80	$ 142.59	$ 1.60	1.12%	10.28%
42	Cullen/Frost	CFR	1	0.90	$ 73.41	$ 2.12	2.89%	7.28%
43	CVS Caremark	CVS	1	0.90	$ 102.38	$ 1.40	1.37%	14.88%
44	Deere & Co.	DE	1	1.10	$ 93.68	$ 2.40	2.56%	4.50%
45	Diageo PLC	DEO	1	0.90	$ 110.96	$ 2.55	2.30%	3.90%
46	Disney (Walt)	DIS	1	1.10	$ 110.37	$ 1.15	1.04%	15.18%
47	Dollar Tree	DLTR	1	0.70	$ 74.99		No Dividends	
48	Du Pont	DD	1	1.10	$ 71.01	$ 1.96	2.76%	8.39%
49	Ecolab Inc.	ECL	1	0.90	$ 114.65	$ 1.32	1.15%	13.40%
50	Emerson Electric	EMR	1	1.10	$ 60.31	$ 1.88	3.12%	7.55%
51	Everest Re Group	RE	1	0.80	$ 180.56	$ 3.80	2.10%	2.71%
52	Exxon Mobil	XOM	1	1.00	$ 85.20	$ 2.92	3.43%	-4.90%
53	Gallagher (A.J.)	AJG	1	0.90	$ 48.45	$ 1.48	3.05%	11.42%
54	General Dynamics	GD	1	1.00	$ 140.16	$ 2.76	1.97%	9.82%
55	General Mills	GIS	1	0.70	$ 56.15	$ 1.76	3.13%	5.66%
56	Genuine Parts	GPC	1	0.90	$ 90.47	$ 2.46	2.72%	5.60%
57	Glaxo SmithKline	GSK	1	0.80	$ 44.37	$ 2.31	5.21%	7.70%
58	Google Inc.	GOOG	1	1.00	$ 531.42		No Dividends	
59	Grainger (W.W.)	GWW	1	1.00	$ 240.33	$ 4.68	1.95%	11.30%
60	Home Depot	HD	1	1.00	$ 111.42	$ 2.36	2.12%	13.50%
61	Honeywell	HON	1	1.10	$ 104.20	$ 2.07	1.99%	10.04%
62	Hormel Foods	HRL	1	0.80	$ 57.22	$ 1.00	1.75%	7.10%
63	Illinois Tool Works	ITW	1	1.10	$ 93.83	$ 1.94	2.07%	10.32%
64	Intel	INTC	1	1.00	$ 34.46	$ 0.96	2.79%	8.25%
65	International Business Machin	IBM	1	0.90	$ 169.65	$ 5.20	3.07%	4.48%
66	International Flavors & Frag.	IFF	1	0.90	$ 119.04	$ 1.88	1.58%	8.87%
67	Intuit Inc.	INTU	1	1.00	$ 104.15	$ 1.00	0.96%	12.26%
68	Johnson & Johnson	JNJ	1	0.80	$ 100.05	$ 3.00	3.00%	5.13%
69	Kellogg Co.	K	1	0.70	$ 62.77	$ 1.96	3.12%	4.15%
70	Kimberly-Clark	KMB	1	0.60	$ 108.86	$ 3.52	3.23%	6.90%
71	Kraft Foods Grp.	KRFT	1	0.90	$ 84.07	$ 2.20	2.62%	3.38%
72	Lab. Corp. Amer.	LH	1	0.80	$ 117.95		No Dividends	
73	Landcaster Colony	LANC	1	0.80	$ 89.24	$ 1.84	2.06%	8.00%
74	Lilly (Eli) & Company	LLY	1	0.80	$ 78.90	$ 2.00	2.53%	4.63%
75	Lockheed Martin	LMT	1	0.90	$ 188.20	$ 6.00	3.19%	8.90%
76	Markel Corp.	MKL	1	0.70	$ 772.43		No Dividends	
77	McCormick	MKC	1	0.80	$ 78.50	$ 1.60	2.04%	7.33%
78	McDonald's Corp	MCD	1	0.70	$ 95.93	$ 3.40	3.54%	6.78%
79	McKesson	MCK	1	0.80	$ 237.23	$ 0.96	0.40%	16.70%
80	MDU Resources	MDU	1	1.00	$ 20.94	$ 0.73	3.49%	9.00%
81	Medtronic Inc.	MDT	1	1.00	$ 76.32	$ 1.22	1.60%	7.22%
82	Merck & Co.	MRK	1	0.80	$ 60.89	$ 1.80	2.96%	4.39%
83	Microsoft	MSFT	1	1.00	$ 46.86	$ 1.24	2.65%	7.38%
84	Motorola Solns.	MSI	1	0.90	$ 59.00	$ 1.36	2.31%	2.00%
85	National Bank Holdings Corp	NBHC	1	0.80	$ 19.12	$ 0.20	1.05%	10.00%
86	Nestle SA (ADR)	NSRGY	1	0.70	$ 77.44		No Dividends	
87	Nike	NKE	1	0.80	$ 101.67	$ 1.12	1.10%	12.15%
88	Northrop Grumman	NOC	1	1.00	$ 159.18	$ 3.20	2.01%	6.84%
89	Novartis AG	NVS	1	0.80	$ 102.73	$ 2.67	2.60%	7.80%
90	Novo Nordisk (ADR)	NVO	1	0.90	$ 56.48	$ 0.73	1.29%	15.50%
91	Nuveen Munic. Val.	NUV	1	0.40	$ 9.70	$ 0.41		no data
92	Occidental Petroleum	OXY	1	1.20	$ 78.19	$ 3.00	3.84%	-0.45%
93	Oracle	ORCL	1	1.10	$ 43.49	$ 0.60	1.38%	8.09%
94	Paychex, Inc.	PAYX	1	0.90	$ 48.41	$ 1.52	3.08%	9.90%
95	PepsiCo Inc	PEP	1	0.70	$ 96.43	$ 2.81	2.91%	6.36%
96	Pfizer Inc.	PFE	1	0.80	$ 34.75	$ 1.12	3.22%	3.16%
97	PPG Industries	PPG	1	1.10	$ 228.89	$ 2.88	1.26%	10.83%
98	Praxair, Inc.	PX	1	1.00	$ 122.86	$ 2.86	2.33%	8.88%
99	Precision Castparts	PCP	1	1.10	$ 211.63	$ 0.12	0.06%	11.34%
100	Procter & Gamble	PG	1	0.70	$ 78.39	$ 2.65	3.38%	6.73%
101	Public Storage	PSA	1	0.90	$ 193.54	$ 6.80	3.51%	5.87%
102	Qualcomm Inc.	QCOM	1	1.00	$ 69.68	$ 1.92	2.76%	10.50%
103	Questar Corp.	STR	1	0.80	$ 22.70	$ 0.84	3.70%	3.70%
104	Raytheon	RTN	1	0.90	$ 103.26	$ 2.68	2.60%	8.23%
105	Rockwell Collins	COL	1	1.10	$ 95.19	$ 1.32	1.39%	11.30%
106	Roper Inds.	ROP	1	1.10	$ 174.96	$ 1.00	0.57%	13.30%
107	Royal Bank of Canada	RY.TO	1	0.70	$ 79.07		No Dividends	
108	Royal Dutch Shell Petroleum	RDS-A	1	1.10	$ 59.72	$ 2.92		no data
109	Sanofi-Aventis	SNY	1	1.00	$ 49.41	$ 1.61	3.26%	5.85%
110	Saputo Inc.	SAP.TO	1	0.70	$ 33.71		No Dividends	
111	Sherwin-Williams	SHW	1	0.80	$ 288.18	$ 2.68	0.93%	15.80%
112	Sigma-Aldrich	SIAL	1	1.00	$ 139.30	$ 0.92	0.66%	6.10%
113	Smucker (J.M.) Co.	SJM	1	0.70	$ 118.55	$ 2.56	2.16%	5.36%
114	Starbucks Corp.	SBUX	1	1.00	$ 51.96	$ 0.64	1.23%	18.50%
115	Stryker Corp.	SYK	1	0.90	$ 96.13	$ 1.38	1.44%	8.55%
116	Synopsys, Inc.	SNPS	1	0.90	$ 49.89		No Dividends	
117	Sysco Corp	SYY	1	0.80	$ 37.16	$ 1.20	3.23%	6.60%
118	Target Corp	TGT	1	0.70	$ 79.32	$ 2.08	2.62%	12.32%
119	Teva Pharm. (ADR)	TEVA	1	0.80	$ 60.10	$ 1.36	2.26%	-0.12%
120	Texas Instr.	TXN	1	1.10	$ 55.92	$ 1.36	2.43%	10.00%
121	TJX Companies	TJX	1	0.80	$ 64.38	$ 0.84	1.30%	10.08%
122	Tootsie Roll Industries	TR	1	0.90	$ 30.74	$ 0.31	1.01%	9.00%
123	Torchmark Corp.	TMK	1	1.00	$ 57.07	$ 0.54	0.95%	8.44%
124	Total Fina Elf	TOT	1	1.20	$ 50.49	$ 2.69	5.33%	0.40%
125	Transcanada Corp.	TRP	1	0.90	$ 43.37	$ 1.67	3.85%	14.75%
126	The Travelers Co.	TRV	1	0.80	$ 101.12	$ 2.44	2.41%	5.65%
127	Unilever (PLC)	UL	1	0.90	$ 44.15	$ 1.28	2.90%	7.10%
128	Union Pacific	UNP	1	1.10	$ 100.91	$ 2.20	2.18%	13.49%
129	United Health Grp.	UNH	1	0.90	$ 120.21	$ 1.50	1.25%	9.82%
130	United Parcel Service	UPS	1	0.90	$ 99.22	$ 2.92	2.94%	9.36%
131	United Technologies	UTX	1	1.10	$ 117.17	$ 2.56	2.18%	9.01%
132	Varian Medical	VAR	1	1.00	$ 86.60		No Dividends	
133	Verizon	VZ	1	0.70	$ 49.44	$ 2.20	4.45%	5.93%
134	Visa	V	1	1.00	$ 68.68	$ 0.48	0.70%	18.08%
135	Wal-Mart Stores	WMT	1	0.60	$ 74.27	$ 1.96	2.64%	4.34%
136	Waste Management	WM	1	0.90	$ 49.65	$ 1.54	3.10%	6.50%
137	Weis Markets	WMK	1	0.70	$ 43.17	$ 1.20		no data
138	White Mountains Insurance Gr	WTM	1	0.60	$ 649.24	$ 1.00	0.15%	-7.70%
139	Zimmer Holdings	ZMH	1	1.00	$ 114.09	$ 0.88	0.77%	5.15%
	MEDIAN			0.90			2.29%	8.23% Short-Term Growth
								5.50% Long-Term Growth

Discounted Cash Flow Model Results

As of May 29, 2015

Utility Stocks

10-year Two Stage DCF Calculation

Year	Short-term Growth Rate	Dividend	Sale Price of Stock	Cash Flow	PV Factor	PV of Cash Flow
0		$ 0.37				
1	5.00%	$ 0.38		$ 0.38	1.0710	$ 0.36
2	5.00%	$ 0.40		$ 0.40	1.1470	$ 0.35
3	5.00%	$ 0.42		$ 0.42	1.2284	$ 0.35
4	5.00%	$ 0.45		$ 0.45	1.3155	$ 0.34
5	5.00%	$ 0.47		$ 0.47	1.4089	$ 0.33
6	5.00%	$ 0.49		$ 0.49	1.5089	$ 0.33
7	5.00%	$ 0.52		$ 0.52	1.6160	$ 0.32
8	5.00%	$ 0.54		$ 0.54	1.7306	$ 0.31
9	5.00%	$ 0.57		$ 0.57	1.8535	$ 0.31
10	5.00%	$ 0.60	$ 13.31	$ 13.91	1.9850	$ 7.01

Market Price of Stock and Present Value of Cash Flow: $ 10.00
Balancing: $ -
Cost of Equity: 7.10%

5-year Two Stage DCF Calculation

Year	Short-term Growth Rate	Dividend	Sale Price of Stock	Cash Flow	PV Factor	PV of Cash Flow
0		$ 0.37				
1	5.00%	$ 0.38		$ 0.38	1.0670	$ 0.36
2	5.00%	$ 0.40		$ 0.40	1.1385	$ 0.35
3	5.00%	$ 0.42		$ 0.42	1.2148	$ 0.35
4	5.00%	$ 0.45		$ 0.45	1.2962	$ 0.34
5	5.00%	$ 0.47	$ 11.41	$ 11.88	1.3831	$ 8.59

Market Price of Stock and Present Value of Cash Flow: $ 10.00
Balancing: $ 0.00
Cost of Equity: 6.70%

One Stage DCF Calculation

Dividend Yield		Growth Adjustment		Growth Rate		Required Return
3.67%	x	105.00%	+	5.00%	=	8.85%

Non-utility Stocks

10-year Two Stage DCF Calculation

Year	Short-term Growth Rate	Dividend	Sale Price of Stock	Cash Flow	PV Factor	PV of Cash Flow
0		$ 0.23				
1	8.23%	$ 0.25		$ 0.25	1.0854	$ 0.23
2	8.23%	$ 0.27		$ 0.27	1.1780	$ 0.23
3	8.23%	$ 0.29		$ 0.29	1.2786	$ 0.23
4	8.23%	$ 0.31		$ 0.31	1.3877	$ 0.23
5	8.23%	$ 0.34		$ 0.34	1.5062	$ 0.23
6	8.23%	$ 0.37		$ 0.37	1.6347	$ 0.23
7	8.23%	$ 0.40		$ 0.40	1.7743	$ 0.22
8	8.23%	$ 0.43		$ 0.43	1.9257	$ 0.22
9	8.23%	$ 0.47		$ 0.47	2.0901	$ 0.22
10	8.23%	$ 0.51	$ 17.57	$ 18.07	2.2685	$ 7.97

Market Price of Stock and Present Value of Cash Flow: $ 10.00
Balancing: $ -
Cost of Equity: 8.54%

5-year Two Stage DCF Calculation

Year	Short-term Growth Rate	Dividend	Sale Price of Stock	Cash Flow	PV Factor	PV of Cash Flow
0		$ 0.23				
1	8.23%	$ 0.25		$ 0.25	1.0823	$ 0.23
2	8.23%	$ 0.27		$ 0.27	1.1714	$ 0.23
3	8.23%	$ 0.29		$ 0.29	1.2678	$ 0.23
4	8.23%	$ 0.31		$ 0.31	1.3722	$ 0.23
5	8.23%	$ 0.34	$ 13.15	$ 13.49	1.4851	$ 9.08

Market Price of Stock and Present Value of Cash Flow: $ 10.00
Balancing: $ -
Cost of Equity: 8.23%

One Stage DCF Calculation

Dividend Yield		Growth Adjustment		Growth Rate		Required Return
2.29%	x	108.23%	+	8.23%	=	10.71%

Discounted Cash Flow Sensitivity

As of May 29, 2015

Utility Stocks

5.50% Terminal Growth Rate

10.00% Required return on equity

10-year Two Stage DCF Calculation

Year	Short-term Growth Rate	Dividend	Sale Price of Stock	Cash Flow	PV Factor	PV of Cash Flow	Year	Short-term Growth Rate	Dividend	Sale Price of Stock	Cash Flow	PV Factor	PV of Cash Flow
0		$ 0.37					0		$ 0.37				
1	5.00%	$ 0.38		$ 0.38	1.0921	$ 0.35	1	5.00%	$ 0.38		$ 0.38	1.1000	$ 0.35
2	5.00%	$ 0.40		$ 0.40	1.1927	$ 0.34	2	5.00%	$ 0.40		$ 0.40	1.2100	$ 0.33
3	5.00%	$ 0.42		$ 0.42	1.3026	$ 0.33	3	5.00%	$ 0.42		$ 0.42	1.3310	$ 0.32
4	5.00%	$ 0.45		$ 0.45	1.4226	$ 0.31	4	5.00%	$ 0.45		$ 0.45	1.4641	$ 0.30
5	5.00%	$ 0.47		$ 0.47	1.5537	$ 0.30	5	5.00%	$ 0.47		$ 0.47	1.6105	$ 0.29
6	5.00%	$ 0.49		$ 0.49	1.6968	$ 0.29	6	5.00%	$ 0.49		$ 0.49	1.7716	$ 0.28
7	5.00%	$ 0.52		$ 0.52	1.8531	$ 0.28	7	5.00%	$ 0.52		$ 0.52	1.9487	$ 0.26
8	5.00%	$ 0.54		$ 0.54	2.0238	$ 0.27	8	5.00%	$ 0.54		$ 0.54	2.1436	$ 0.25
9	5.00%	$ 0.57		$ 0.57	2.2103	$ 0.26	9	5.00%	$ 0.57		$ 0.57	2.3579	$ 0.24
10	5.00%	$ 0.60	$ 16.97	$ 17.56	2.4139	$ 7.28	10	5.00%	$ 0.60	$ 18.51	$ 19.11	2.5937	$ 7.37

Market Price of Stock and Present Value of Cash Flow: $ 10.00
Balancing: $ -
Cost of Equity: 9.21%

Market Price of Stock and Present Value of Cash Flow: $ 10.00
Balancing: $ -
Cost of Equity: 10.00%
Long Range Growth Rate: 6.56%

5-year Two Stage DCF Calculation

Year	Short-term Growth Rate	Dividend	Sale Price of Stock	Cash Flow	PV Factor	PV of Cash Flow	Year	Short-term Growth Rate	Dividend	Sale Price of Stock	Cash Flow	PV Factor	PV of Cash Flow
0		$ 0.37					0		$ 0.37				
1	5.00%	$ 0.38		$ 0.38	1.0928	$ 0.35	1	5.00%	$ 0.38		$ 0.38	1.1000	$ 0.35
2	5.00%	$ 0.40		$ 0.40	1.1943	$ 0.34	2	5.00%	$ 0.40		$ 0.40	1.2100	$ 0.33
3	5.00%	$ 0.42		$ 0.42	1.3051	$ 0.33	3	5.00%	$ 0.42		$ 0.42	1.3310	$ 0.32
4	5.00%	$ 0.45		$ 0.45	1.4263	$ 0.31	4	5.00%	$ 0.45		$ 0.45	1.4641	$ 0.30
5	5.00%	$ 0.47	$ 13.05	$ 13.52	1.5586	$ 8.67	5	5.00%	$ 0.47	$ 13.53	$ 14.00	1.6105	$ 8.69

Market Price of Stock and Present Value of Cash Flow: $ 10.00
Balancing: $ 0.00
Cost of Equity: 9.28%

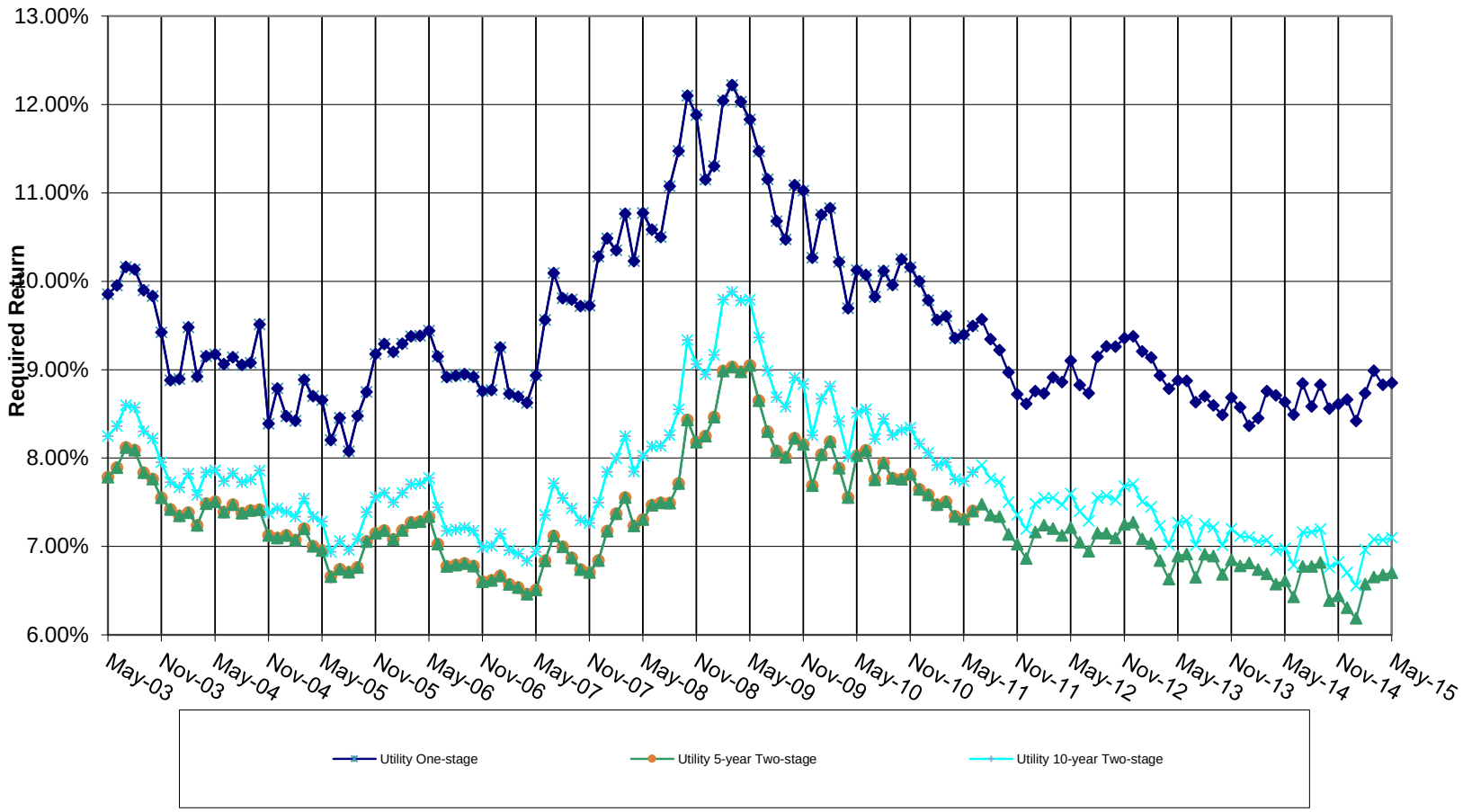
Market Price of Stock and Present Value of Cash Flow: $ 10.00
Balancing: $ -
Cost of Equity: 10.00%
Long Range Growth Rate: 6.32%

One Stage DCF Calculation

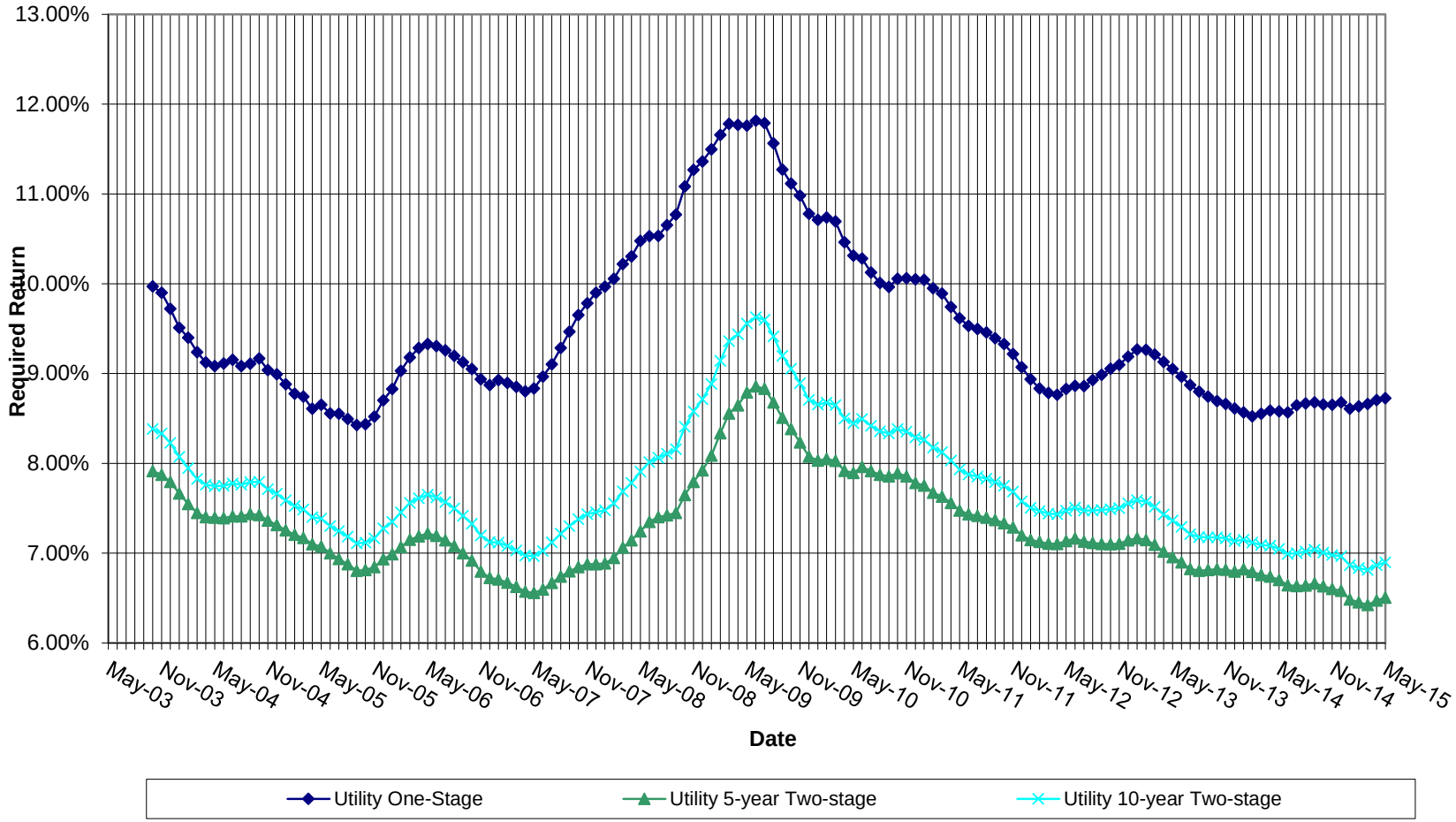
Dividend Yield		Growth Adjustment		Growth Rate		Required Return
3.67%	x	106.11%	+	6.11%	=	10.00%

Balancing: 0.00%
Long Range Growth Rate: 6.11%

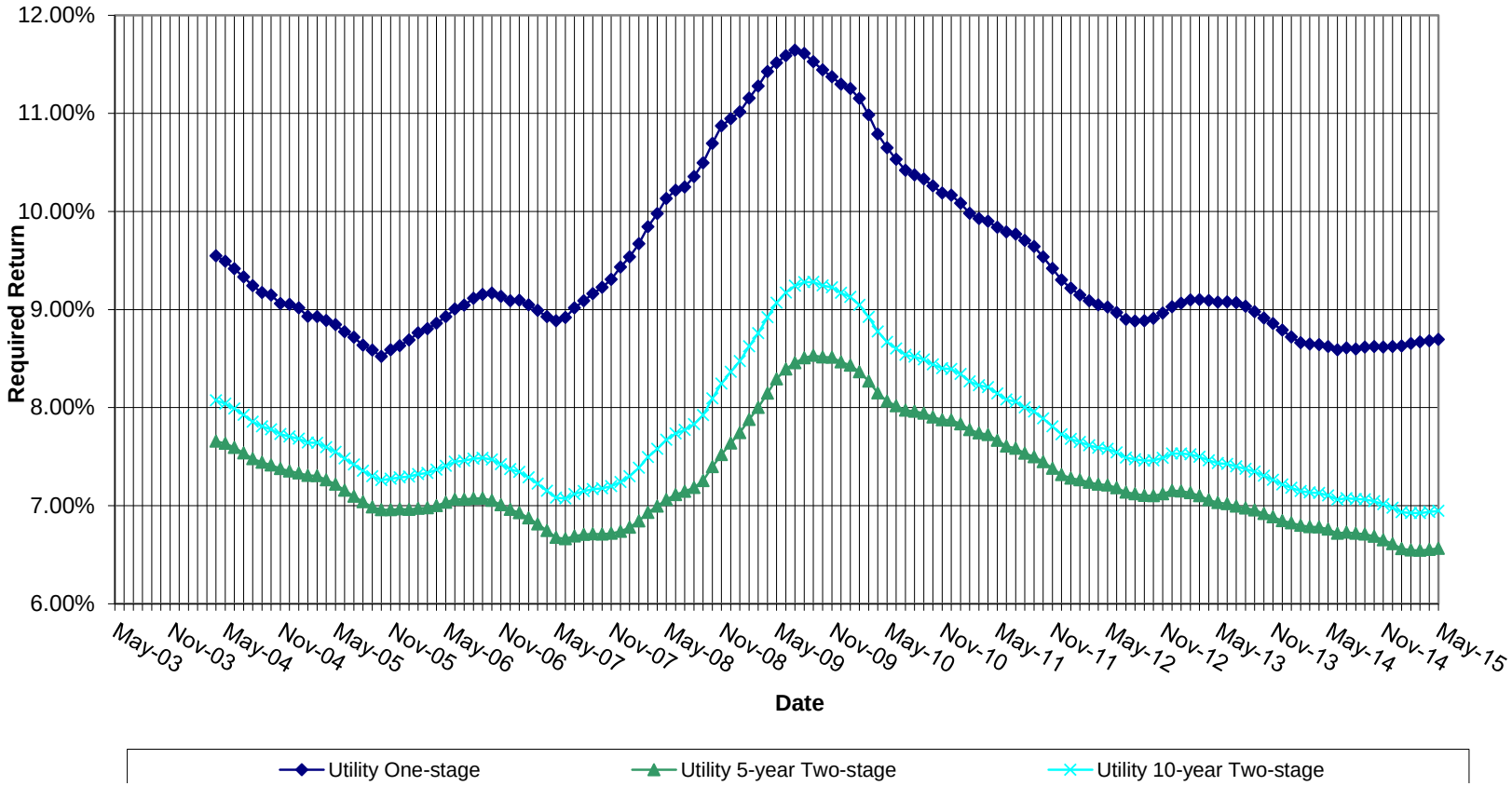
Discounted Cash Flow
Utility Stocks



Discounted Cash Flow
Utility Stocks - Moving 6-Month Average



Discounted Cash Flow
Utility Stocks - Moving 12-Month average



Interest Rate Premium Model

Wisconsin Public Service Corporation

Rate Case	Order Date	Common Equity	PSCW Authorized ROE	Decision Date	30-year T-bond yield (Month of Decision)	Interest Premium	10-year T-note yield (Month of Decision)	Interest Premium	A Utility yield (Month of Decision)	Interest Premium
101	July 87	48.01	12.90	6/9/1987	8.57	4.33	8.40	4.50	10.02	2.88
102	January 88	50.79	13.20	12/16/1987	9.12	4.08	8.99	4.21	10.98	2.22
103	January 89	52.76	13.00	12/22/1988	9.01	3.99	9.11	3.89	10.06	2.94
104	December 89	53.60	12.90	11/9/1989	7.90	5.00	7.87	5.03	9.51	3.39
105	December 90	50.98	13.10	11/5/1990	8.54	4.56	8.39	4.71	9.90	3.20
106	December 91	52.97	12.80	11/7/1991	7.92	4.88	7.42	5.38	9.05	3.75
107	December 92	54.15	12.30	11/12/1992	7.61	4.69	6.87	5.43	8.63	3.67
108	December 93	55.61	11.30	11/11/1993	6.21	5.09	5.72	5.58	7.30	4.00
109	December 94	55.43	11.50	11/29/1994	8.80	2.70	7.96	3.54	8.98	2.52
110	February 97	54.80	11.80	1/7/1997	6.83	4.97	6.58	5.22	7.77	4.03
111	January 99	54.22	12.10	12/15/1998	5.06	7.04	4.65	7.45	6.91	5.19
112	December 00	54.28	12.10	11/30/2000	5.78	6.32	5.72	6.38	8.11	3.99
113	June 02	54.99	12.30	5/7/2002	Not Available		5.16	7.14	7.52	4.78
114	March 03	55.00	12.00	2/20/2003	Not Available		3.90	8.10	6.93	5.07
115	December 03	56.00	12.00	12/4/2003	Not Available		4.27	7.73	6.27	5.73
116	December 04	57.35	11.50	11/23/2004	Not Available		4.19	7.31	5.97	5.53
117	December 05	59.73	11.00	12/12/2005	Not Available		4.47	6.53	5.80	5.20
118	January 07	57.46	10.90	12/22/2006	4.68	6.22	4.56	6.34	5.81	5.09
119	December 08	- -		12/18/2008	Settlement		Settlement		Settlement	
120	January 11	51.65	10.30	12/16/2010	4.42	5.88	3.29	7.01	5.56	4.74
121	December 12	51.61 -		10/24/2012	ROE Not Litigated		ROE Not Litigated		ROE Not Litigated	
122	December 13	50.14	10.20	11/6/2013	3.80	6.40	2.72	7.48	4.77	5.43
123	December 14	50.28	10.20	11/6/2014	3.04	7.16	2.33	7.87	4.09	6.11
			Average Interest Rate Premium			**5.58**		**6.53**		**4.68**

	30-Year T-bond Rate Blue Chip Forecast June 2015	**3.57**	10-Year T-note Rate Blue Chip Forecast June 2015	**2.90**	AA Utility Rate for 2016 Global Insight June 2015	**5.16**
June Estimate	**ROE Estimate**	**9.14**		**9.43**		**9.84**
	Range:					
	At Maximum Interest Rate Premium of:	7.16		8.10		6.11
		3.57		2.90		5.16
		10.73		**11.00**		**11.27**
	At Minimum Interest Rate Premium of:	2.70		3.54		2.22
		3.57		2.90		5.16
		6.27		**6.44**		**7.38**
	Indicated Risk Premiums:					
		6.23		**6.90**		**4.64**
	Reasonable range minimum: 9.80%	3.57		2.90		5.16
		9.80		9.80		9.80
		6.43		**7.10**		**4.84**
	Point Estimate: 10.00%	3.57		2.90		5.16
		10.00		10.00		10.00
		6.63		**7.30**		**5.04**
	Reasonable range maximum: 10.20%	3.57		2.90		5.16
		10.20		10.20		10.20

Wisconsin Public Service Commission Cost of Capital Decisions

Major Investor Owned Utilities

			Common Stock Equity		Preferred Stock Equity		Debt Capital		Weighted Cost of Capital	Economic Cost of Capital
Company	Docket Number	Order Date	Percent of Capital	Rate of Return (%)	Percent of Capital	Cost (%)	Percent of Capital	Cost (%)	(%)	(%)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Wisconsin Electric Power Company	6630-UR-103	1-90	54.18	12.90	4.63	5.90	41.19	8.57	10.79	15.47
Madison Gas and Electric Company	3270-UR-104	6-90	51.37	13.20	1.95	8.70	46.68	8.98	11.14	15.62
Wisconsin Bell, Inc.	6720-TR-104	9-90	61.25	13.75 **	-	-	38.75	7.46	11.31	16.74
Wisconsin Fuel & Light Company	6640-GR-103	9-90	51.70	13.60	-	-	48.30	9.94	11.83	16.37
Wisconsin Public Service Corporation	6690-UR-105	12-90	50.98	13.10	7.01	6.32	42.01	8.64	10.75	15.34
Superior Water, Light & Power Company	5820-UR-104	1-91	54.80	13.25	-	-	45.20	8.25	10.99	15.67
Wisconsin Electric Power Company	6630-UR-104	1-91	53.57	13.10	4.54	5.90	41.89	8.57	10.88	15.41
Northern States Power Company	4220-UR-104	1-91	58.62	12.75	-	-	41.38	8.87	11.14	15.94
GTE North, Inc.	2180-TR-102	2-91	58.64	13.50	1.48	5.46	39.88	8.32	11.32	16.48
Wisconsin Natural Gas Company	6670-GR-106	8-91	52.73	13.30	-	-	47.28	8.54	11.05	15.57
Wisconsin Gas Company	6650-GR-109	11-91	49.09	13.40	-	-	50.91	9.42	11.37	15.61
Wisconsin Southern Gas Company	6710-GR-106	11-91	48.93	13.50	-	-	51.07	9.81	11.62	15.88
Wisconsin Public Service Corporation	6690-UR-106	12-91	52.97	12.80	6.52	6.32	40.51	8.37	10.58	15.22
Northern States Power Company	4220-UR-105	12-91	57.08	12.60	-	-	42.92	8.76	10.95	15.57
Wisconsin Electric Power Company	6630-UR-105	1-92	52.56	12.80	4.23	5.90	43.21	8.50	10.65	15.15
Madison Gas and Electric Company	3270-UR-105	4-92	53.36	12.90 *	1.80	8.70	44.84	8.61	10.90	15.45
Wisconsin Gas Company	6650-GR-110	10-92	49.45	12.75	-	-	50.55	8.90	10.80	14.86
Wisconsin Natural Gas Company	6670-GR-107	10-92	53.69	12.75	-	-	46.31	7.58	10.37	14.79
Wisconsin Power and Light Company	6680-UR-107	12-92	49.53	12.40	6.40	6.36	44.07	7.70	9.94	14.17
Wisconsin Public Service Corporation	6690-UR-107	12-92	54.15	12.30	6.41	6.32	39.45	8.26	10.32	14.87
Northern States Power Company	4220-UR-106	1-93	56.94	12.00	-	-	43.06	8.40	10.44	14.84
Wisconsin Electric Power Company	6630-UR-106	2-93	51.19	12.30	3.72	5.89	45.09	8.17	10.21	14.42
GTE North, Inc.	2180-TR-103	3-93	60.08	12.75	1.32	5.49	38.60	8.29	10.93	15.92
Superior Water, Light & Power Company	5820-UR-105	5-93	55.28	12.60	-	-	44.72	8.34	10.70	15.20
Madison Gas and Electric Company	3270-UR-106	6-93	50.66	12.00	1.62	8.70	47.72	7.40	9.75	13.76
Wisconsin Natural Gas Company	6670-GR-108	8-93	51.12	11.90	-	-	48.88	6.29	9.15	13.07
Wisconsin Electric Power Company	6630-UR-107	8-93	52.13	11.80 ***	3.45	5.88	44.41	7.90	9.86	13.96
Wisconsin Power and Light Company	6680-UR-108	10-93	50.31	11.60	5.87	6.36	43.82	7.07	9.31	13.32
Wisconsin Fuel & Light Company	6640-GR-105	10-93	45.98	12.65	-	-	54.02	8.51	10.41	14.16
Wisconsin Gas Company	6650-GR-111	12-93	48.43	11.80	-	-	51.57	7.15	9.40	13.08
Northern States Power Company	4220-UR-107	12-93	54.91	11.40	-	-	45.09	6.98	9.60	13.63
Wisconsin Public Service Corporation	6690-UR-108	12-93	55.61	11.30	6.37	6.08	38.02	7.81	9.64	14.11
Wisconsin Power and Light Company	6680-UR-109	12-94	51.93	11.50	5.58	5.52	42.49	7.48	9.46	13.67
Madison Gas and Electric Company	3270-UR-107	12-94	53.89	11.70	1.48	8.70	44.63	7.45	9.76	14.08
Wisconsin Public Service Corporation	6690-UR-109	12-94	55.43	11.50	6.35	6.08	38.22	7.83	9.75	14.28
Wisconsin Electric Power Company	6630-UR-108	9-95	54.57	11.30 *	0.96	3.95	44.47	7.72	9.64	13.93
Wisconsin Fuel & Light Company	6640-GR-106	10-95	45.50	11.90	7.04	6.00	47.46	8.62	9.92	13.68
Northern States Power Company	4220-UR-108	12-95	54.99	11.30	-	-	45.01	7.46	9.57	13.73
Superior Water, Light & Power Company	5820-UR-106	3-96	52.09	11.60	-	-	47.91	7.76	9.76	13.66
Northern States Power Company	4220-UR-109	12-96	55.00	11.30	-	-	45.00	7.40	9.55	13.72
Wisconsin Electric Power Company	6630-UR-109	2-97	53.35	11.80	0.94	3.95	45.71	7.29	9.67	13.86
Wisconsin Public Service Corporation	6690-UR-110	2-97	54.80	11.80	6.45	6.08	38.75	7.35	9.71	14.31
Wisconsin Power and Light Company	6680-UR-110	4-97	52.00	11.70	5.44	5.52	42.56	7.40	9.53	13.81
Madison Gas and Electric Company	3270-UR-108	7-97	53.01	12.00	-	-	47.00	7.24	9.76	14.02
Wisconsin Electric Power Company	6630-UR-110	4-98	53.14	12.20	0.90	3.95	45.96	6.98	9.72	14.03
Northern States Power Company	4220-UR-110	9-98	54.996	11.90	-	-	45.004	7.08	9.72	14.10
Madison Gas and Electric Company	3270-UR-109	1-99	53.35	12.20	-	-	46.65	7.23	9.88	14.24
Wisconsin Public Service Corporation	6690-UR-111	1-99	54.22	12.10	5.85	6.08	39.93	7.10	9.76	14.40
Northern States Power Company	4220-UR-111	10-99	54.978	11.90 *	-	-	45.022	7.18	9.77	14.15
Wisconsin Electric Power Company	6630-UR-111	8-00	53.45	12.20	0.86	3.95	45.69	7.05	9.77	14.10
Madison Gas and Electric Company	3270-UR-110	12-00	50.69	12.90	-	-	49.31	7.29	10.14	14.52
Wisconsin Public Service Corporation	6690-UR-112	12-00	54.28	12.10	4.77	6.08	40.95	7.06	9.74	14.34
Superior Water, Light & Power Company	5820-UR-107	9-01	52.76	12.25	-	-	47.24	6.95	9.74	14.07
Wisconsin Public Service Corporation	6690-UR-113	6-02	54.99	12.30	4.50	6.08	40.51	6.64	9.71	14.42
Wisconsin Power and Light Company	6680-UR-111	9-02	44.67	12.30	4.19	5.52	51.14	6.05	8.81	12.64

Wisconsin Public Service Commission Cost of Capital Decisions
Major Investor Owned Utilities

Company	Docket Number	Order Date	Common Stock Equity Percent of Capital	Common Stock Equity Rate of Return (%)	Preferred Stock Equity Percent of Capital	Preferred Stock Equity Cost (%)	Debt Capital Percent of Capital	Debt Capital Cost (%)	Weighted Cost of Capital (%)	Economic Cost of Capital (%)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Madison Gas and Electric Company	3270-UR-111	2-03	55.42	12.30	-	-	44.58	6.50	9.71	14.28
Wisconsin Public Service Corporation	6690-UR-114	3-03	55.00	12.00	4.33	6.08	40.67	5.86	9.24	13.84
Wisconsin Power and Light Company	6680-UR-112	4-03	51.72	12.00	4.02	5.52	44.26	5.89	9.04	13.35
Superior Water, Light & Power Company	5820-UR-108	5-03	52.10	12.25	-	-	47.90	5.97	9.23	13.51
Wisconsin Power and Light Company	6680-UR-113	12-03	60.27	12.00	4.11	5.52	35.62	5.70	9.50	14.50
Wisconsin Public Service Corporation	6690-UR-115	12-03	56.00	12.00	3.91	6.08	40.09	5.59	9.20	13.87
Madison Gas and Electric Company	3270-UR-112	1-04	55.91	12.00	-	-	44.10	6.02	9.37	13.87
Wisconsin Public Service Corporation	6690-UR-116	12-04	57.35	11.50	3.25	6.08	39.40	5.30	8.89	13.45
Madison Gas and Electric Company	3270-UR-113	12-04	57.64	11.50	-	-	42.36	6.03	9.18	13.62
Superior Water, Light & Power Company	5820-UR-109	5-05	54.53	11.70	-	-	45.47	6.21	9.20	13.48
Wisconsin Power and Light Company	6680-UR-114	7-05	61.75	11.50	4.04	5.52	34.21	6.10	9.41	14.32
Madison Gas and Electric Company	3270-UR-114	12-05	56.65	11.00	-	-	43.35	6.12	8.88	13.06
Wisconsin Public Service Corporation	6690-UR-117	12-05	59.73	11.00	3.41	6.08	36.86	5.53	8.82	13.37
Northern States Power Company	4220-UR-114	1-06	53.66	11.00	-	-	46.34	6.55	8.94	12.90
Wisconsin Electric Power Company	05-UR-102	1-06	56.34	11.20	0.73	3.95	42.93	5.08	8.52	12.71
Wisconsin Gas Company	05-UR-102	1-06	50.20	11.20	-	-	49.80	5.36	8.29	12.06
Superior Water, Light & Power Company	5820-UR-110	12-06	55.00	11.10	-	-	45.00	6.62	9.08	13.18
Wisconsin Public Service Corporation	6690-UR-118	1-07	57.46	10.90	2.74	6.08	39.80	5.52	8.63	12.94
Wisconsin Power and Light Company	6680-UR-115	1-07	54.13	10.80	3.83	5.52	42.04	6.24	8.68	12.74
Madison Gas and Electric Company	3270-UR-115	12-07	57.36	10.80	-	-	42.64	6.00	8.75	12.90
Northern States Power Company	4220-UR-115	1-08	52.51	10.75	-	-	47.49	6.23	8.60	12.38
Wisconsin Electric Power Company	05-UR-103	1-08	54.36	10.75	0.72	3.95	44.92	5.46	8.33	12.22
Wisconsin Gas Company	05-UR-103	1-08	46.64	10.75	-	-	53.36	5.45	7.29	11.27
Wisconsin Public Service Corporation	6690-UR-119	12-08	-	- *	-	-	-	-	-	-
Wisconsin Power and Light Company	6680-UR-116	12-08	-	- *	-	-	-	-	-	-
Superior Water, Light & Power Company	5820-UR-111	12-08	55.05	11.10	-	-	44.95	6.26	8.92	13.02
Wisconsin Power and Light Company	6680-UR-117	12-09	50.38	10.40	2.45	5.52	47.17	5.94	8.18	11.79
Wisconsin Electric Power Company	05-UR-104	12-09	53.02	10.40	0.60	3.95	46.38	4.96	7.83	11.53
Wisconsin Gas Company	05-UR-104	12-09	46.62	10.50	-	-	53.38	3.93	6.99	10.27
Northern States Power Company	4220-UR-116	12-09	52.30	10.40	-	-	47.70	5.96	8.28	11.93
Madison Gas and Electric Company	3270-UR-116	12-09	55.34	10.40	-	-	44.66	5.05	8.02	11.88
Superior Water, Light, & Power Company	5820-UR-112	12-10	54.93	10.90	-	-	45.07	5.82	8.62	12.63
Wisconsin Public Service Corporation	6690-UR-120	1-11	51.65	10.30	2.69	6.08	45.66	5.28	7.90	11.56
Madison Gas & Electric Company	3270-UR-117	1-11	58.06	10.30	-	-	41.94	5.79	8.41	12.42
Wisconsin Electric Power Company	05-UR-105	11-11	-	- ^	-	-	-	-	-	-
Wisconsin Gas Company	05-UR-105	11-11	-	- ^	-	-	-	-	-	-
Northern States Power Company	4220-UR-117	12-11	52.59	10.40	-	-	47.41	5.48	8.07	11.74
Wisconsin Power and Light Company	6680-UR-118	7-12	-	10.40 ^^	-	-	-	-	-	-
Superior Water, Light, & Power Company	5820-UR-113	11-12	55.29	10.90	-	-	44.71	5.45	8.46	12.51
Wisconsin Public Service Corporation	6690-UR-121	12-12	51.61	10.30	2.51	6.08	45.88	4.71	7.63	11.18
Madison Gas & Electric Company	3270-UR-118	12-12	59.09	10.30	-	-	40.91	4.92	8.10	12.18
Wisconsin Electric Power Company	05-UR-106	12-12	52.09	10.40	0.51	3.95	47.40	4.79	7.71	11.34
Wisconsin Gas Company	05-UR-106	12-12	46.75	10.50	-	-	53.25	3.74	6.90	10.19
Northern States Power Company	4220-UR-118	12-12	52.37	10.40	-	-	47.63	5.37	8.01	11.66
Wisconsin Public Service Corporation	6690-UR-122	12-13	50.14	10.20	1.94	6.08	47.92	4.53	7.40	10.91
Northern States Power Company	4220-UR-119	12-13	52.54	10.20	-	-	47.46	5.42	7.93	11.52
Wisconsin Public Service Corporation	6690-UR-123	12-14	50.28	10.20	1.87	6.08	47.85	4.59	7.44	10.95
Madison Gas and Electric Company	3270-UR-120	12-14	58.96	10.20 *	-	-	41.04	4.78	7.97	12.00
Wisconsin Electric Power Company	5-UR-107	12-14	51.90	10.20 *	0.48	3.95	47.62	4.40	7.40	10.94
Wisconsin Gas Company	5-UR-107	12-14	48.91	10.30 *	-	-	51.09	3.69	6.92	10.30

* Commission settlement decision.

** Three-Year Plan.

*** Commission settlement decision. ROE does not include forecasted $25 million revenue shortfall.

^ Alternative Approach

^^ Rate freeze with earnings capped and shared.

Regulatory Return on Equity

Year	Average Authorized			
	Electric		Gas	
	ROE	Equity	ROE	Equity
1984	15.32%		15.31%	
1985	15.20%		14.75%	
1986	13.93%	41.28%	13.46%	46.09%
1987	12.99%	41.54%	12.74%	46.24%
1988	12.79%	43.02%	12.85%	45.82%
1989	12.97%	44.79%	12.88%	47.62%
1990	12.70%	42.42%	12.67%	47.21%
1991	12.55%	43.80%	12.46%	47.19%
1992	12.09%	44.69%	12.01%	46.64%
1993	11.41%	47.40%	11.35%	46.15%
1994	11.34%	45.15%	11.35%	48.12%
1995	11.55%	45.90%	11.43%	49.98%
1996	11.39%	44.34%	11.19%	47.69%
1997	11.40%	48.79%	11.29%	47.78%
1998	11.66%	46.14%	11.51%	49.50%
1999	10.77%	45.08%	10.66%	49.06%
2000	11.43%	48.85%	11.39%	48.59%
2001	11.09%	47.20%	10.95%	43.96%
2002	11.16%	46.27%	11.03%	48.29%
2003	10.97%	49.41%	10.99%	49.93%
2004	10.75%	46.84%	10.59%	45.90%
2005	10.54%	46.73%	10.46%	48.66%
2006	10.36%	48.67%	10.43%	47.43%
2007	10.36%	48.01%	10.24%	48.37%
2008	10.46%	48.41%	10.37%	50.47%
2009	10.48%	48.61%	10.19%	48.72%
2010	10.34%	48.45%	10.08%	48.56%
2011	10.29%	48.26%	9.92%	52.49%
2012	10.17%	50.55%	9.94%	51.13%
2013	10.02%	49.25%	9.68%	50.60%
2014	9.92%	50.67%	9.78%	51.25%

Source: Regulatory Research Associates, Inc.

Wisconsin Public Service Corporation

Weighted Cost of Capital

Test Year Ending 12/31/16

		Capitalization Ratio	Annual Cost	Weighted Cost	Annual Cost	Weighted Cost	Annual Cost	Weighted Cost	Annual Cost	Weighted Cost
1	Utility Common Equity	50.46	9.60%	4.84%	9.80%	4.95%	10.00%	5.05%	10.20%	5.15%
2	Preferred Stock Equity	1.78	6.08%	0.11%	6.08%	0.11%	6.08%	0.11%	6.08%	0.11%
3	Long-Term Debt	45.22	4.81%	2.18%	4.81%	2.18%	4.81%	2.18%	4.81%	2.18%
4	Short-Term Debt	2.53	1.60%	0.04%	1.60%	0.04%	1.60%	0.04%	1.60%	0.04%
5	Total Utility Capital	100.000		7.17%		7.28%		7.38%		7.48%
6	Total Taxes on Equity Capital with 35.00% Federal and 7.9% WI Tax Rates (.6704 x Lines 1 + 2)			3.32%		3.39%		3.46%		3.53%
7	Economic Cost of Capital			10.49%		10.67%		10.84%		11.01%

Times Interest Coverage With Various Returns on Common Equity

Test Year Ending 12/31/16

		Capitalization	Annual Cost	Cost	Annual Cost	Cost	Annual Cost	Cost	Annual Cost	Cost
1	Utility Common Equity	1,505,417	9.60%	$144,520	9.80%	$147,531	10.00%	$150,542	10.20%	$153,553
2	Preferred Stock Equity	51,188	6.08%	$3,112	6.08%	$3,112	6.08%	$3,112	6.08%	$3,112
3	Long-Term Debt	1,300,100	4.81%	$62,535	4.81%	$62,535	4.81%	$62,535	4.81%	$62,535
4	Subsidiary Debt	1,051	7.29%	$77	7.29%	$77	7.29%	$77	7.29%	$77
5	Off-Balance Sheet Obligations	21,131	7.00%	$1,479	7.00%	$1,479	7.00%	$1,479	7.00%	$1,479
6	Short-Term Debt	72,860	1.60%	$1,166	1.60%	$1,166	1.60%	$1,166	1.60%	$1,166
	Total Financial Capital	$2,951,747		$212,889		$215,899		$218,910		$221,921
7	Total Taxes on Equity Capital with 35.00% Federal and 7.9% WI Tax Rates (.6704 x Lines 1 + 2)			$ 98,973		$ 100,991		$ 103,010		$ 105,028
8	Economic Cost of Capital			$ 311,861		$ 316,891		$ 321,920		$ 326,949
9	Before Tax Coverage			4.78		4.86		4.93		5.01
10	After Tax Coverage			3.26		3.31		3.35		3.40

WPSC Filed Fixed Revenues			
Electric		Gas	
Class	Dollars	Class	Dollars
Rg-1	$ 110,379,000	Rg-3	$ 69,491,140
Rg-3	$ 3,601,325	Cg-FST	$ 5,107,760
Rg-5	$ 994,300	Cg-FS	$ 4,299,785
Cg-1	$ 18,718,965	Cg-FM	$ 1,857,770
Cg-3	$ 1,575,450	Cg-FL	$ 207,142
Cg-5	$ 2,462,426	Cg-IM	$ 41,256
Cg-20	$ 4,201,090	Cg-IL	$ 29,016
Cp	$ 1,811,496	Cg-ISL	$ -
Total	$ 143,744,052	Cg-IEGM	$ -
		Cg-IEGL	$ 865,440
		Cg-SOS-M	$ 204,240
		Rg-T	$ -
		Cg-TSA	$ 34,650
		Cg-TS	$ 11,592
		Cg-TMA	$ 449,430
		Cg-TM	$ 735,402
		Cg-TLA	$ 39,744
		Cg-TL	$ 1,601,280
		Cg-TSLA	$ -
		Cg-TSL&CSR	$ 1,588,353
		Total	$ 86,564,000

Total Revenue		Fixed as Percentage of Total	
Electric	$ 1,032,536,278	Electric	13.92%
Gas	$ 327,691,010	Gas	26.42%
Total	$ 1,360,227,288	Total	16.93%

Commission Staff Proposed Fixed Revenues			
Electric (w/ demand)		Gas	
Class	Dollars	Class	Dollars
Rg-1	$ 84,683,171	Rg-3	$ 58,736,777
Rg-3	$ 2,449,309	Cg-FST	$ 3,881,637
Rg-5	$ 755,668	Cg-FS	$ 4,724,447
Cg-1	$ 15,947,225	Cg-FM	$ 2,247,936
Cg-3	$ 1,326,765	Cg-FL	$ 200,481
Cg-5	$ 2,332,462	Cg-IM	$ 35,016
Cg-20	$ 20,471,195	Cg-IL	$ 22,768
Cp	$ 14,734,593	Cg-ISL	$ -
Total	$ 142,700,387	Cg-IEGM	$ 178,970
		Cg-IEGL	$ 84,142
		Cg-SOS-M	$ -
		Rg-T	$ -
		Cg-TSA	$ 37,151
		Cg-TS	$ 13,365
		Cg-TMA	$ 395,897
		Cg-TM	$ 670,379
		Cg-TLA	$ 31,582
		Cg-TL	$ 1,286,323
		Cg-TSLA	$ -
		Cg-TSL&CSR	$ 1,640,558
		Total	$ 74,187,428

Total Revenue		Fixed as Percentage of Total	
Electric	$ 1,032,536,278	Electric	13.82%
Gas	$ 327,691,010	Gas	22.64%
Total	$ 1,360,227,288	Total	15.94%

Commission Staff Proposed Fixed Revenues			
Electric (w/o demand)		Gas	
Class	Dollars	Class	Dollars
Rg-1	$ 84,683,171	Rg-3	$ 58,736,777
Rg-3	$ 2,449,309	Cg-FST	$ 3,881,637
Rg-5	$ 755,668	Cg-FS	$ 4,724,447
Cg-1	$ 15,947,225	Cg-FM	$ 2,247,936
Cg-3	$ 1,326,765	Cg-FL	$ 200,481
Cg-5	$ 2,332,462	Cg-IM	$ 35,016
Cg-20	$ 4,072,302	Cg-IL	$ 22,768
Cp	$ 1,647,948	Cg-ISL	$ -
Total	$ 113,214,850	Cg-IEGM	$ 178,970
		Cg-IEGL	$ 84,142
		Cg-SOS-M	$ -
		Rg-T	$ -
		Cg-TSA	$ 37,151
		Cg-TS	$ 13,365
		Cg-TMA	$ 395,897
		Cg-TM	$ 670,379
		Cg-TLA	$ 31,582
		Cg-TL	$ 1,286,323
		Cg-TSLA	$ -
		Cg-TSL&CSR	$ 1,640,558
		Total	$ 74,187,428

Total Revenue		Fixed as Percentage of Total	
Electric	$ 1,032,536,278	Electric	10.96%
Gas	$ 327,691,010	Gas	22.64%
Total	$ 1,360,227,288	Total	13.78%

Using Short-term Debt rate

Risk Adjustment= (ROE*(1-Fixed Revenue percentage)+ Short-Term Debt Rate*(Fixed Revenue percentage))-ROE

	WPSC proposed fixed charges	Staff proposed fixed charges, including distribution demand	Staff proposed fixed charges, excluding distribution demand
using WPSC's requested ROE	=(10.2%*(1-16.93%)+(1.6%*16.93%))-10.2% -1.46%	=(10.2%*(1-15.94%)+(1.6%*15.94%))-10.2% -1.37%	=(10.2%*(1-13.78%)+(1.6%*13.78%))-10.2% -1.19%
using staff's point estimate ROE	=(10%*(1-16.93%)+(1.6%*16.93%))-10% -1.42%	=(10%*(1-15.94%)+(1.6%*15.94%))-10% -1.34%	=(10%*(1-13.78%)+(1.6%*13.78%))-10% -1.16%

Using Long-term Debt rate

Risk Adjustment= (ROE*(1-Fixed Revenue percentage)+ Long-Term Debt Rate*(Fixed Revenue percentage)-ROE

	WPSC proposed fixed charges	Staff proposed fixed charges, demand fixed	Staff proposed fixed charges, demand variable
using WPSC's requested ROE	=(10.2%*(1-16.93%)+(4.81%*16.93%))-10.2% -0.91%	=(10.2%*(1-15.94%)+(4.81%*15.94%))- -0.86%	=(10.2%*(1-13.78%)+(4.81%*13.78%))-10.2% -0.74%
using staff's point estimate ROE	=(10%*(1-16.93%)+(4.81%*16.93%))-10% -0.88%	=(10%*(1-15.94%)+(4.81%*15.94%))-10% -0.83%	=(10%*(1-13.78%)+(4.81%*13.78%))-10% -0.72%

Using Weighted Cost of Capital

Risk Adjustment= (ROE*(1-Fixed Revenue percentage)+ Weighted Average Cost of Capital*(Fixed Revenue percentage)-ROE

	WPSC proposed fixed charges	Staff proposed fixed charges, demand fixed	Staff proposed fixed charges, demand variable
using WPSC's requested ROE	=(10.2%*(1-16.93%)+(7.48%*16.93%))-10.2% -0.46%	=(10.2%*(1-15.94%)+(7.48%*15.94%))- -0.43%	=(10.2%*(1-13.78%)+(7.48%*13.78%))-10.2% -0.37%
using staff's point estimate ROE	=(10%*(1-16.93%)+(7.48%*16.93%))-10% -0.43%	=(10%*(1-15.94%)+(7.48%*15.94%))-10% -0.40%	=(10%*(1-13.78%)+(7.48%*13.78%))-10% -0.35%