MISSOURI PUBLIC SERVICE COMMISSION

**STAFF REPORT** 

# **COST OF SERVICE**

# **REVENUE REQUIREMENT**

# **APPENDIX 2**

Support for Staff Cost of Capital Recommendations

# UNION ELECTRIC COMPANY,

# d/b/a Ameren Missouri

# CASE NO. ER-2012-0166

Jefferson City, Missouri July 2012

# AN ANALYSIS OF THE COST OF CAPITAL FOR Union Electric Company d/b/a Ameren Missouri Ecug No. ER-2012-0166 **SCHEDULES** BY **DAVID MURRAY REGULATORY REVIEW DIVISION - UTILITY SERVICES MISSOURI PUBLIC SERVICE COMMISSION JUNE 2012**

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#### Federal Reserve Discount Rates Changes and Federal Reserve Funds Rates Changes

Date	Federal Reserve Discount Rate	Federal Reserve Funds Rate	Date	Federal Reserve Discount Rate	Federal Reserve Funds Rate
01/01/83	8.50%	T dildo T dilo	06/30/99	4.50%	5.00%
12/31/83	8.50%		08/24/99	4.75%	5.25%
04/09/84	9.00%		11/16/99	5.00%	5.50%
11/21/84	8.50%		02/02/00	5.25%	5.75%
12/24/84	8.00%		03/21/00	5.50%	6.00%
05/20/85	7.50%		05/19/00	6.00%	6.50%
03/07/86	7.00%		01/03/01	5.75%	6.00%
04/21/86	6.50%		01/04/01 01/31/01	5.50%	6.00%
07/11/86	6.00% 5.50%			5.00%	5.50%
08/21/86			03/20/01	4.50%	5.00%
09/04/87	6.00%		04/18/01	4.00%	4.50%
08/09/88	6.50%		05/15/01	3.50%	4.00%
02/24/89	7.00%	0.000/	06/27/01	3.25%	3.75%
07/13/90		8.00% *	08/21/01	3.00%	3.50%
10/29/90		7.75%	09/17/01	2.50%	3.00%
11/13/90		7.50%	10/02/01	2.00%	2.50%
12/07/90		7.25%	11/06/01	1.50%	2.00%
12/18/90		7.00%	12/11/01	1.25%	1.75%
12/19/90	6.50%		11/06/02	0.75%	1.25%
01/09/91		6.75%	01/09/03	2.25%**	1.25%
02/01/91	6.00%	6.25%	06/25/03	2.00%	1.00%
03/08/91		6.00%	06/30/04	2.25%	1.25%
04/30/91	5.50%	5.75%	08/10/04	2.50%	1.50%
08/06/91		5.50%	09/21/04	2.75%	1.75%
09/13/91	5.00%	5.25%	11/10/04	3.00%	2.00%
10/31/91		5.00%	12/14/04	3.25%	2.25%
11/06/91	4.50%	4.75%	02/02/05	3.50%	2.50%
12/06/91		4.50%	03/22/05	3.75%	2.75%
12/20/91	3.50%	4.00%	05/03/05	4.00%	3.00%
04/09/92		3.75%	06/30/05	4.25%	3.25%
07/02/92	3.00%	3.25%	08/09/05	4.50%	3.50%
09/04/92		3.00%	09/20/05	4.75%	3.75%
01/01/93			11/01/05	5.00%	4.00%
12/31/93	No Changes	No Changes	12/13/05	5.25%	4.25%
02/04/94		3.25%	01/31/06	5.50%	4.50%
03/22/94		3.50%	03/28/06	5.75%	4.75%
04/18/94		3.75%	05/10/06	6.00%	5.00%
05/17/94	3.50%	4.25%	06/29/06	6.25%	5.25%
08/16/94	4.00%	4.75%	08/17/07	5.75%	5.25%
11/15/94	4.75%	5.50%	09/18/07	5.25%	4.75%
02/01/95	5.25%	6.00%	10/31/07	5.00%	4.50%
07/06/95	0.2070	5.75%	12/11/07	4.75%	4.25%
12/19/95		5.50%	01/22/08	4.00%	3.50%
01/31/96	5.00%	5.25%	01/30/08	3.50%	3.00%
03/25/97	0.0070	5.50%	03/16/08	3.25%	0.0070
12/12/97	5.00%	0.0070	03/18/08	2.50%	2.25%
01/09/98	5.00%		04/30/08	2.25%	2.23%
03/06/98	5.00%	F 2F9/	10/08/08	1.75%	1.50%
09/29/98		5.25%	10/28/08	1.25%	1.00%
10/15/98	4.75%	5.00%	12/30/08	0.50%	0%25%
11/17/98	4.50%	4.75%	02/19/10	0.75%	

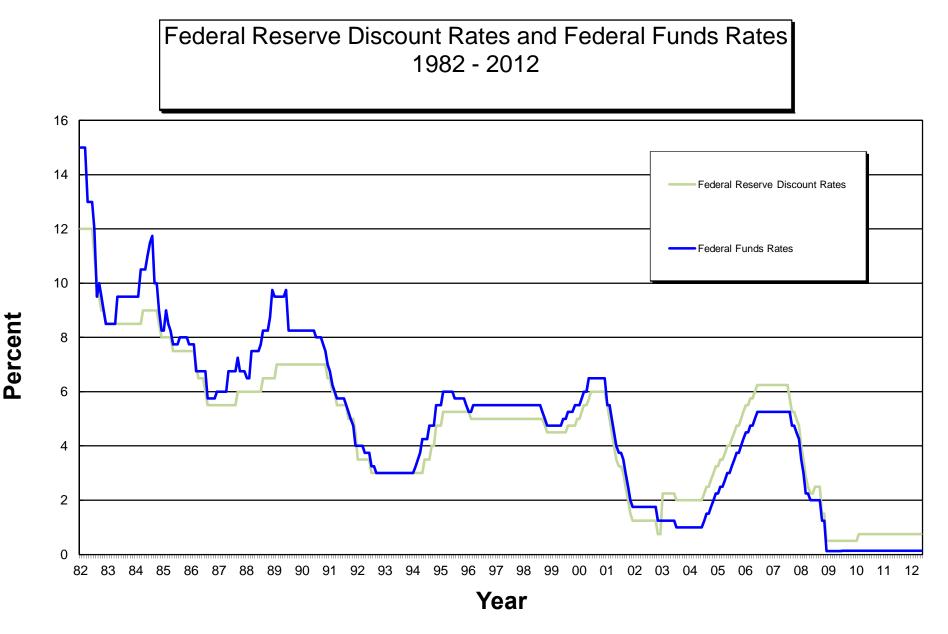
\* Staff began tracking the Federal Funds Rate.

\*\*Revised discount window program begins. Reflects rate on primary credit. This revised discount window policy results in incom of the discount rates after January 9, 2003 to discount rates before January 9, 2003.

Source:

Federal Reserve Discount rate Federal Reserve Funds rate http://www.newyorkfed.org/markets/statistics/dlyrates/fedrate.html http://www.newyorkfed.org/markets/statistics/dlyrates/fedrate.htm

Note: Interest rates as of December 31 for each year are underlined.



**SCHEDULE 2-2** 

#### Union Electric Company d/b/a Ameren Missouri Case No. ER-2012-0166 Rate of Inflation

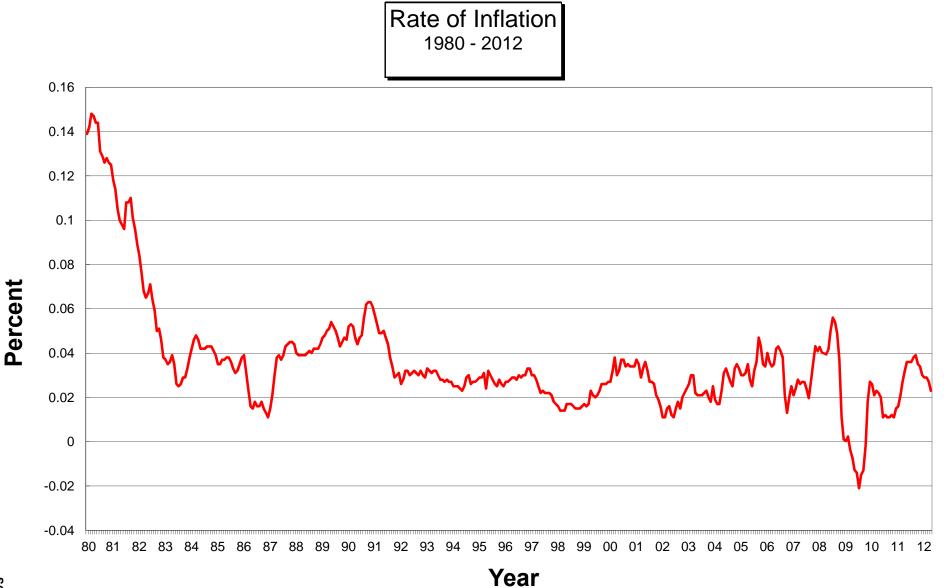
Mo/Year Jan 1980	Rate (%) 13.90	Mo/Year Jan 1984	Rate (%) 4.20	Mo/Year Jan 1988	Rate (%) 4.00	Mo/Year Jan 1992	Rate (%) 2.60	Mo/Year Jan 1996	Rate (%) 2.70	Mo/Year Jan 2000	Rate (%) 2.70	Mo/Year Jan 2004	Rate (%) 1.90	Mo/Year Jan 2008	Rate (%) 4.30	Mo/Year Jan 2012	Rate (%) 2.90
				Feb													
Feb	14.20	Feb	4.60		3.90	Feb	2.80	Feb	2.70	Feb	3.20	Feb	1.70	Feb	4.00	Feb	2.90
Mar	14.80 14.70	Mar Apr	4.80 4.60	Mar	3.90 3.90	Mar Apr	3.20 3.20	Mar	2.80 2.90	Mar	3.70 3.00	Mar	1.70 2.30	Mar	4.00 3.90	Mar Apr	2.70 2.30
Apr Mov				Apr Mov			3.20	Apr Mov		Apr Mov		Apr Mov		Apr Mov			1.70
May	14.40	May	4.20 4.20	May	3.90	May	3.00	May	2.90 2.80	May	3.20 3.70	May	3.10 3.30	May	4.20 5.00	May	1.70
Jun	14.40	Jun		Jun	4.00	Jun											
Jul	13.10	Jul	4.20	Jul	4.10	Jul	3.20	Jul	3.00	Jul	3.70	Jul	3.00	Jul	5.60		
Aug	12.90	Aug	4.30	Aug	4.00	Aug	3.10	Aug	2.90	Aug	3.40	Aug	2.70	Aug	5.40		
Sep	12.60	Sep	4.30	Sep	4.20	Sep	3.00	Sep	3.00	Sep	3.50	Sep	2.50	Sep	4.90		
Oct	12.80	Oct	4.30	Oct	4.20	Oct	3.20	Oct	3.00	Oct	3.40	Oct	3.30	Oct	3.70		
Nov	12.60	Nov	4.10	Nov	4.20	Nov	3.00	Nov	3.30	Nov	3.40	Nov	3.50	Nov	1.10		
Dec	12.50	Dec	3.90	Dec	4.40	Dec	2.90	Dec	3.30	Dec	3.40	Dec	3.30	Dec	0.10		
Jan 1981	11.80	Jan 1985	3.50	Jan 1989	4.70	Jan 1993	3.30	Jan 1997	3.00	Jan 2001	3.70	Jan 2005	3.00	Jan 2009	0.00		
Feb	11.40	Feb	3.50	Feb	4.80	Feb	3.20	Feb	3.00	Feb	3.50	Feb	3.00	Feb	0.20		
Mar	10.50	Mar	3.70	Mar	5.00	Mar	3.10	Mar	2.80	Mar	2.90	Mar	3.10	Mar	-0.40		
Apr	10.00	Apr	3.70	Apr	5.10	Apr	3.20	Apr	2.50	Apr	3.30	Apr	3.50	Apr	-0.70		
May	9.80	May	3.80	May	5.40	May	3.20	May	2.20	May	3.60	May	2.80	May	-1.28		
Jun	9.60	Jun	3.80	Jun	5.20	Jun	3.00	Jun	2.30	Jun	3.20	Jun	2.50	Jun	-1.40		
Jul	10.80	Jul	3.60	Jul	5.00	Jul	2.80	Jul	2.20	Jul	2.70	Jul	3.20	Jul	-2.10		
Aug	10.80	Aug	3.30	Aug	4.70	Aug	2.80	Aug	2.20	Aug	2.70	Aug	3.60	Aug	-1.50		
Sep	11.00	Sep	3.10	Sep	4.30	Sep	2.70	Sep	2.20	Sep	2.60	Sep	4.70	Sep	-1.30		
Oct	10.10	Oct	3.20	Oct	4.50	Oct	2.80	Oct	2.10	Oct	2.10	Oct	4.30	Oct	-0.20		
Nov	9.60	Nov	3.50	Nov	4.70	Nov	2.70	Nov	1.80	Nov	1.90	Nov	3.50	Nov	1.80		
Dec	8.90	Dec	3.80	Dec	4.60	Dec	2.70	Dec	1.70	Dec	1.60	Dec	3.40	Dec	2.70		
Jan 1982	8.40	Jan 1986	3.90	Jan 1990	5.20	Jan 1994	2.50	Jan 1998	1.60	Jan 2002	1.10	Jan 2006	4.00	Jan 2010	2.60		
Feb	7.60	Feb	3.10	Feb	5.30	Feb	2.50	Feb	1.40	Feb	1.10	Feb	3.60	Feb	2.10		
Mar	6.80	Mar	2.30	Mar	5.20	Mar	2.50	Mar	1.40	Mar	1.50	Mar	3.40	Mar	2.30		
Apr	6.50	Apr	1.60	Apr	4.70	Apr	2.40	Apr	1.40	Apr	1.60	Apr	3.50	April	2.20		
May	6.70	May	1.50	May	4.40	May	2.30	May	1.70	May	1.20	May	4.20	May	2.00		
Jun	7.10	Jun	1.80	Jun	4.70	Jun	2.50	Jun	1.70	Jun	1.10	June	4.30	Jun	1.10		
Jul	6.40	Jul	1.60	Jul	4.80	Jul	2.90	Jul	1.70	Jul	1.50	July	4.10	Jul	1.20		
Aug	5.90	Aug	1.60	Aug	5.60	Aug	3.00	Aug	1.60	Aug	1.80	Aug	3.80	Aug	1.10		
Sep	5.00	Sep	1.80	Sep	6.20	Sep	2.60	Sep	1.50	Sep	1.50	Sep	2.10	Sep	1.10		
Oct	5.10	Oct	1.50	Oct	6.30	Oct	2.70	Oct	1.50	Oct	2.00	Oct	1.30	Oct	1.20		
Nov	4.60	Nov	1.30	Nov	6.30	Nov	2.70	Nov	1.50	Nov	2.20	Nov	2.00	Nov	1.10		
Dec	3.80	Dec	1.10	Dec	6.10 5.70	Dec	2.80	Dec	1.60	Dec	2.40	Dec	2.50 2.10	Dec	1.50		
Jan 1983 Feb	3.70 3.50	Jan 1987 Feb	1.50 2.10	Jan 1991 Feb	5.70 5.30	Jan 1995 Feb	2.90 2.90	Jan 1999 Feb	1.70 1.60	Jan 2003 Feb	2.60 3.00	Jan 2007 Feb	2.10	Jan 2011 Feb	1.60 2.10		
			3.00		4.90		3.10		1.00	Mar	3.00		2.40		2.10		
Mar Apr	3.60 3.90	Mar Apr	3.80	Mar Apr	4.90	Mar Apr	2.40	Mar Apr	2.30	Apr	2.20	Mar Apr	2.60	Mar Apr	3.20		
May	3.90	May	3.80	May	4.90 5.00	May	3.20	May	2.30	May	2.20	May	2.00	May	3.60		
Jun	2.60	Jun	3.70	Jun	4.70	Jun	3.00	Jun	2.00	Jun	2.10	Jun	2.70	Jun	3.60		
Jul	2.50	Jul	3.90	Jul	4.40	Jul	2.80	Jul	2.10	Jul	2.10	Jul	2.40	Jul	3.60		
Aug	2.60	Aug	4.30	Aug	3.80	Aug	2.60	Aug	2.10	Aug	2.10	Aug	2.40	Aug	3.80		
Sep	2.90	Sep	4.40	Sep	3.40	Sep	2.50	Sep	2.60	Sep	2.30	Sep	2.80	Sep	3.90		
Oct	2.90	Oct	4.50	Oct	2.90	Oct	2.80	Oct	2.60	Oct	2.00	Oct	3.50	Oct	3.50		
Nov	3.30	Nov	4.50	Nov	3.00	Nov	2.60	Nov	2.60	Nov	1.80	Nov	4.30	Nov	3.40		
Dec	3.80	Dec	4.40	Dec	3.10	Dec	2.50	Dec	2.70	Dec	1.90	Dec	4.10	Dec	3.00		

Source: U.S. Dept of Labor, Bureau of Labor Statistics, Consumer Price Index - All Urban Consumers,

Change for 12-Month Period, Bureau of Labor Statistics,

http://www.bls.gov/schedule/archives/cpi\_nr.htm

Union Electric Company d/b/a Ameren Missouri Case No. ER-2012-0166



SCHEDULE 3-2

**SCHEDULE 3-2** 

#### Union Electric Company d/b/a Ameren Missouri Case No. ER-2012-0166 Average Yields on Public Utility Bonds

Mo/Year Jan 1980	Rate (%) 12.12	Mo/Year Jan 1984	Rate (%) 13.40	Mo/Year Jan 1988	Rate (%) 10.75	Mo/Year Jan 1992	Rate (%) 8.67	Mo/Year Jan 1996	Rate (%) 7.20	Mo/Year Jan 2000	Rate (%) 8.22	Mo/Year Jan 2004	Rate (%) 6.23	Mo/Year Jan 2008	Rate (%) 6.08	Mo/Year Jan 2012	Rate (%) 4.97
Feb	13.48	Feb	13.50	Feb	10.11	Feb	8.77	Feb	7.37	Feb	8.10	Feb	6.17	Feb	6.28	Feb	4.99
Mar	14.33	Mar	14.03	Mar	10.11	Mar	8.84	Mar	7.72	Mar	8.14	Mar	6.01	Mar	6.29	Mar	5.13
Apr	13.50	Apr	14.30	Apr	10.53	Apr	8.79	Apr	7.88	Apr	8.14	Apr	6.38	Apr	6.36	Apr	5.05
May	12.17	May	14.95	May	10.75	May	8.72	May	7.99	May	8.55	May	6.68	May	6.38	May	4.84
Jun	11.87	Jun	15.16	Jun	10.71	Jun	8.64	Jun	8.07	Jun	8.22	Jun	6.53	Jun	6.50		
Jul	12.12	Jul	14.92	Jul	10.96	Jul	8.46	Jul	8.02	Jul	8.17	Jul	6.34	Jul	6.50		
Aug	12.82	Aug	14.29	Aug	11.09	Aug	8.34	Aug	7.84	Aug	8.05	Aug	6.18	Aug	6.48 6.59		
Sep Oct	13.29 13.53	Sep Oct	14.04 13.68	Sep Oct	10.56 9.92	Sep Oct	8.32 8.44	Sep Oct	8.01 7.76	Sep Oct	8.16 8.08	Sep Oct	6.01 5.95	Sep Oct	0.59 7.70		
Nov	14.07	Nov	13.15	Nov	9.89	Nov	8.53	Nov	7.48	Nov	8.03	Nov	5.97	Nov	7.80		
Dec	14.48	Dec	12.96	Dec	10.02	Dec	8.36	Dec	7.58	Dec	7.79	Dec	5.93	Dec	6.87		
Jan 1981	14.22	Jan 1985	12.88	Jan 1989	10.02	Jan 1993	8.23	Jan 1997	7.79	Jan 2001	7.76	Jan 2005	5.80	Jan 2009	6.77		
Feb	14.84	Feb	13.00	Feb	10.02	Feb	8.00	Feb	7.68	Feb	7.69	Feb	5.64	Feb	6.72		
Mar	14.86	Mar	13.66	Mar	10.16	Mar	7.85	Mar	7.92	Mar	7.59	Mar	5.86	Mar	6.85		
Apr	15.32	Apr	13.42	Apr	10.14	Apr	7.76	Apr	8.08	Apr	7.81	Apr	5.72	Apr	6.90		
May	15.84	May	12.89	May	9.92	May	7.78	May	7.94	May	7.88	May	5.60	May	6.83		
Jun	15.27	Jun	11.91	Jun	9.49	Jun	7.68	Jun	7.77	Jun	7.75	Jun	5.39	June	6.54		
Jul	15.87	Jul	11.88	Jul	9.34	Jul	7.53	Jul	7.52	Jul	7.71	Jul	5.50	July	6.15		
Aug	16.33	Aug	11.93	Aug	9.37	Aug	7.21	Aug	7.57	Aug	7.57	Aug	5.51	Aug	5.80		
Sep	16.89	Sep	11.95	Sep	9.43	Sep	7.01	Sep	7.50	Sep	7.73	Sep	5.54	Sep	5.60		
Oct	16.76	Oct	11.84	Oct	9.37	Oct	6.99	Oct	7.37	Oct	7.64	Oct	5.79	Oct	5.64		
Nov	15.50	Nov	11.33	Nov	9.33	Nov	7.30	Nov	7.24	Nov	7.61	Nov	5.88	Nov	5.71		
Dec	15.77	Dec	10.82	Dec	9.31	Dec	7.33	Dec	7.16	Dec	7.86	Dec	5.83	Dec	5.86		
Jan 1982	16.73	Jan 1986	10.66	Jan 1990	9.44	Jan 1994	7.31	Jan 1998	7.03	Jan 2002	7.69	Jan 2006	5.77	Jan 2010	5.83		
Feb	16.72	Feb	10.16	Feb	9.66	Feb	7.44	Feb	7.09	Feb	7.62	Feb	5.83	Feb	5.94		
Mar	16.07	Mar	9.33	Mar	9.75	Mar	7.83	Mar	7.13	Mar	7.83	Mar	5.98	Mar	5.90		
Apr	15.82	Apr	9.02	Apr	9.87	Apr	8.20	Apr	7.12	Apr	7.74	Apr	6.28	Apr	5.87		
May	15.60	May	9.52	May	9.89	May	8.32	May	7.12	May	7.76	May	6.39	May	5.59		
Jun	16.18	Jun	9.52	Jun	9.69	Jun	8.31	Jun	6.99	Jun	7.67	June	6.39	June	5.62		
Jul	16.04	Jul	9.19	Jul	9.66	Jul	8.47	Jul	6.99	Jul	7.54	July	6.37	July	5.41		
Aug	15.22	Aug	9.15	Aug	9.84	Aug	8.41	Aug	6.96	Aug	7.34	Aug	6.20	Aug	5.10		
Sep	14.56	Sep	9.42	Sep	10.01	Sep	8.65	Sep	6.88	Sep	7.23	Sep	6.03	Sep	5.10		
Oct	13.88	Oct	9.39	Oct	9.94	Oct	8.88	Oct	6.88	Oct	7.43	Oct	6.01	Oct	5.20		
Nov	13.58	Nov	9.15	Nov	9.76	Nov	9.00	Nov	6.96	Nov	7.31	Nov	5.82	Nov	5.45		
Dec	13.55	Dec	8.96	Dec	9.57	Dec	8.79	Dec	6.84	Dec	7.20	Dec	5.83	Dec	5.61		
Jan 1983	13.46	Jan 1987	8.77	Jan 1991	9.56	Jan 1995	8.77	Jan 1999	6.87	Jan 2003	7.13	Jan 2007	5.96	Jan 2011	5.69		
Feb	13.60	Feb	8.81	Feb	9.31	Feb	8.56	Feb	7.00	Feb	6.92	Feb	5.91	Feb	5.82		
Mar	13.28	Mar	8.75	Mar	9.39	Mar	8.41	Mar	7.18	Mar	6.80	Mar	5.87	Mar	5.74		
Apr	13.03	Apr	9.30	Apr	9.30	Apr	8.30	Apr	7.16	Apr	6.68	Apr	6.01	Apr	5.76		
May	13.00	May	9.82	May	9.29	May	7.93	May	7.42	May	6.35	May	6.03	May	5.57		
Jun	13.17	Jun	9.87	Jun	9.44	Jun	7.62	Jun	7.70	Jun	6.21	June	6.34	June	5.52		
Jul	13.28	Jul	10.01	Jul	9.40	Jul	7.73	Jul	7.66	Jul	6.54	July	6.28	July	5.61		
Aug	13.50	Aug	10.33	Aug	9.16	Aug	7.86	Aug	7.86	Aug	6.78	Aug	6.28	Aug	5.26		
Sep	13.35	Sep	11.00	Sep	9.03	Sep	7.62	Sep	7.87	Sep	6.58	Sep	6.24	Sep	5.01		
Oct	13.19	Oct	11.32	Oct	8.99	Oct	7.46	Oct	8.02	Oct	6.50	Oct	6.17	Oct	5.11		
S Nov	13.33	Nov	10.82	Nov	8.93	Nov	7.40	Nov	7.86	Nov	6.44	Nov	6.04	Nov	5.00		
Dec	13.48	Dec	10.92	Dec	8.76	Dec	7.40	Dec	8.04	Dec	6.36	Dec	6.23	Dec	4.96		
	13.40	Dec	10.33	Dec	0.70	Dec	1.21	Dec	0.04	Dec	0.30	Der	0.23	Dec	4.30		

Mergent Bond Record (through November 2010); BondsOnline (December 2010 to present)

#### Union Electric Company d/b/a Ameren Missouri Case No. ER-2012-0166 Average Yields on Thirty-Year U.S. Treasury Bonds

Jan 1980         (1660         Jan 1986         (17)         Jan 1988         8.83         Jan 1987         7.88         Jan 1986         6.03         Jan 2000         6.83         Jan 2004         4.99         Jan 2000         4.33         Jan 2000         4.33         Jan 2000         4.33         Jan 2000         4.35         Feb         5.30         Jan 1900         Jan 1910         Jan 1900         Jan 2000	Mo/Year	Rate (%)																
Mar         1.2.3         Mar         2.8.3         Mar         2.0.3         Mar         2.0.3 <th< td=""><td>Jan 1980</td><td>10.60</td><td>Jan 1984</td><td>11.75</td><td>Jan 1988</td><td>8.83</td><td>Jan 1992</td><td>7.58</td><td>Jan 1996</td><td>6.05</td><td>Jan 2000</td><td>6.63</td><td>Jan 2004</td><td>4.99</td><td>Jan 2008</td><td>4.33</td><td>Jan 2012</td><td>3.03</td></th<>	Jan 1980	10.60	Jan 1984	11.75	Jan 1988	8.83	Jan 1992	7.58	Jan 1996	6.05	Jan 2000	6.63	Jan 2004	4.99	Jan 2008	4.33	Jan 2012	3.03
Apr         11.40         Apr         13.40         Apr         13.41         Apr         13.41         Apr         13.21         Apr         13.21 <th< td=""><td>Feb</td><td>12.13</td><td>Feb</td><td>11.95</td><td>Feb</td><td>8.43</td><td>Feb</td><td>7.85</td><td>Feb</td><td>6.24</td><td>Feb</td><td>6.23</td><td>Feb</td><td>4.93</td><td>Feb</td><td>4.52</td><td>Feb</td><td>3.11</td></th<>	Feb	12.13	Feb	11.95	Feb	8.43	Feb	7.85	Feb	6.24	Feb	6.23	Feb	4.93	Feb	4.52	Feb	3.11
Apr         1.4.0         Apr         1.5.8         Apr         1.5.8         Apr         5.8.4         Apr         5.1.8         Apr         5.1.4         Apr         4.1.4         Apr         3.1.8           Jun         3.8.1         Jun         1.3.2.1         Sep         1.3.2         Jun         Jun         Jun         Jun         Ju	Mar	12.34	Mar	12.38	Mar	8.63	Mar	7.97	Mar	6.60	Mar	6.05	Mar	4.74	Mar	4.39	Mar	3.28
May         10.36         May         1.34         May         9.23         May         7.89         May         6.15         May         6.21         May         6.20         May         6.21         May         6.23         M	Apr	11.40	Apr	12.65	Apr	8.95	Apr	7.96	Apr	6.79	Apr		Apr	5.14	Apr	4.44	Apr	3.18
Jun         S.B.1         Jun         S.M.4         Jun         S.M.4         Jun         T.M.4         Jun         T.M.4         Jun         S.M.4         Jun         Ju															•			
Ang         11.00         Ang         2.28         Ang         7.34         Ang         7.37         Ang         5.72         Ang         5.72         Ang         5.70         A	Jun		-	13.44	-		-	7.84	-						Jun	4.69		
Ang         11.00         Ang         2.28         Ang         7.34         Ang         7.37         Ang         5.72         Ang         5.72         Ang         5.70         A	Jul	10.24	Jul	13.21	Jul	9.14	Jul	7.60	Jul	7.03	Jul	5.85	Jul	5.22	Jul	4.57		
Sep         11.49         Sep         12.30         Sep         7.30         Sep         5.83         Sep         4.90         Sep         4.27           Nor         12.37         Nor         11.65         Nor         0.01         7.53         O.01         6.81         O.01         5.78         Nor         4.80         Ara         5.85         Jan 2001         5.54         Jan 2001 <t< td=""><td>Aug</td><td>11.00</td><td>Aug</td><td>12.54</td><td>Aug</td><td>9.32</td><td>Aug</td><td>7.39</td><td>Aug</td><td>6.84</td><td>Aug</td><td>5.72</td><td>Aug</td><td>5.06</td><td>Aug</td><td>4.50</td><td></td><td></td></t<>	Aug	11.00	Aug	12.54	Aug	9.32	Aug	7.39	Aug	6.84	Aug	5.72	Aug	5.06	Aug	4.50		
Check         11.58         Cat         1.58         Cat         8.89         Cat         8.89         Cat         8.89         Cat         4.17           Dec         12.40         Dec         11.52         Dec         9.01         Dec         7.61         Nov         6.81         Nov         5.80         Dec         4.89         Dec         2.87           Jun 1981         12.43         Jun 1985         1.45         Jun 1981         Nava         1.97         Rava         6.83         Jun 1987         6.83         Jun 2001         5.74         Jun 2003         3.73           Har         13.20         Arr         1.47         Perb         9.01         Feb         6.83         Arr         5.63         Arr         4.85         Arr         3.64           May         13.20         Arr         1.47         Arr         8.33         Mar         6.84         Arr         5.75         May         4.44         Mar         4.23         Jun         4.23           Jun         12.66         Jun         10.61         Agr         6.81         Jun         6.55         Jun         4.54         Jun         4.54           Jun         12.65	Sep	11.34	Sep	12.29	Sep	9.06	Sep	7.34	Sep	7.03	Sep	5.83	Sep	4.90	Sep	4.27		
Dec         11.52         Dec         11.52         Dec         1.54         Jan 1891         11.54         Jan 2009         3.13           Feb         11.68         Mar         11.84         Mar         1.81         Mar         5.81         Jan 2009         3.13           Apr         13.26         Mar         1.84         Mar         5.81         Mar         5.84         Apr         4.65         Apr         3.64           Mary         13.26         Mary         10.44         Jun         8.33         Jan<16	-	11.59	Oct	11.98	Oct	8.89		7.53	Oct	6.81			Oct			4.17		
Jan 1981         12.4         Jan 1985         11.45         Jan 1985         11.46         Jan 1985         11.47         Feb         6.83         Jan 2005         4.73         Jan 2005         3.73           Mar         12.80         Mar         11.81         Mar         9.17         Mar         6.83         Mar         6.34         Mar         6.35         Mar         6.35         Mar         6.36         Mar         6.35         Mar         6.35         Mar         6.36         Mar         6.35         Mar         6.35         Mar         6.35         Mar         6.36         Mar         6.35         Mar         6.35         Mar         6.35         Mar         6.35         Mar         6.35         Mar         6.35         Mar         6.37         Mar         6.37         Mar         4.35         Mar         4.32           Jun         10.50         Jun         8.27         Jun         6.35         Jun         6.57         Jun         6.51         Jun         Jun         Jun	Nov	12.37	Nov	11.56	Nov	9.02	Nov	7.61	Nov	6.48	Nov	5.78	Nov	4.89	Nov	4.00		
Feb         11.47         Feb         9.01         Feb         7.09         Feb         5.48         Feb         4.55         Feb         3.59           Mar         12.09         Apr         11.47         Apr         9.17         Mar         6.85         Apr         6.38         Mar         5.34         Mar         4.84         Mar         3.64           Mar         13.00         Apr         10.41         Mar         8.27         Mar         6.81         Mar         6.70         Mar         5.78         Mar         4.49         Mar         4.23           Jul         13.59         Jun         10.44         Jun         8.27         Jun         6.81         Jun         5.76         Mar         4.49         Mar         4.24         Mar         4.23           Jul         13.58         Jun         10.56         Jun         8.02         Jun         5.81         Sep         5.48         Sep         4.47         Sep         4.19           Orc         13.45         Dec         5.41         Sep         Jun         5.12         Mar         5.13         Mar         5.13         Mar         5.14         Mar         5.14         Mar </td <td>Dec</td> <td>12.40</td> <td>Dec</td> <td>11.52</td> <td>Dec</td> <td>9.01</td> <td>Dec</td> <td>7.44</td> <td>Dec</td> <td>6.55</td> <td>Dec</td> <td>5.49</td> <td>Dec</td> <td>4.86</td> <td>Dec</td> <td>2.87</td> <td></td> <td></td>	Dec	12.40	Dec	11.52	Dec	9.01	Dec	7.44	Dec	6.55	Dec	5.49	Dec	4.86	Dec	2.87		
Mar         11.81         Mar         9.17         Mar         6.82         Mar         6.30         Mar         5.45         Mar         4.76         Mar         3.64           Mar         13.00         May         11.05         May         8.33         May         6.92         May         5.65         Apr         4.49         May         4.23           Jun         12.96         Jun         10.50         Jun         8.02         Jun         6.81         Jun         5.67         Jun         4.41         Juny         4.52           Jun         14.77         Aug         10.56         Aug         4.47         Sap         4.17         Aug         4.78         Mar         4.78         Mar         4.78         Mary         4.73           Oct         14.67         Sap         Jun         10.65         Aug         4.17         Nov         4.18         Nov         4.19         Aug         4.73         Nov         4.19           Oct         13.55         Nor         10.66         Nov         7.90         Nov         6.21         Nov         5.10         Nov         5.48         Jon         4.49         Jan         4.64	Jan 1981	12.14	Jan 1985	11.45	Jan 1989	8.93	Jan 1993	7.34	Jan 1997	6.83	Jan 2001	5.54	Jan 2005	4.73	Jan 2009	3.13		
Apr         13.20         Apr         11.47         Apr         9.30         Apr         6.85         Apr         7.09         Apr         5.65         Apr         4.65         Apr         4.25           Jun         13.60         Jun         10.44         Jun         8.27         Jun         6.81         Jun         6.77         Jun         5.67         Jun         4.29         Jun         4.23           Jun         13.59         Jun         10.56         Jun         8.08         Jun         6.51         Jun         5.61         Jun         4.29         Jun         4.23           Sep         14.67         Sep         10.61         Sep         8.12         Aug         6.22         Aug         6.53         Sep         5.40         Aug         4.46         Aug         4.47         Sep         4.17           Nov         13.35         Nov         10.06         Nov         7.30         Nov         6.21         Nov         5.11         Nov         5.12         Nov         4.73         Nov         4.31           Jan         14.22         Jan 1980         9.40         Jan 1990         8.26         Jan 2002         5.41         Jan 2002 </td <td>Feb</td> <td>12.80</td> <td>Feb</td> <td>11.47</td> <td>Feb</td> <td>9.01</td> <td>Feb</td> <td>7.09</td> <td>Feb</td> <td>6.69</td> <td>Feb</td> <td>5.45</td> <td>Feb</td> <td>4.55</td> <td>Feb</td> <td>3.59</td> <td></td> <td></td>	Feb	12.80	Feb	11.47	Feb	9.01	Feb	7.09	Feb	6.69	Feb	5.45	Feb	4.55	Feb	3.59		
May         13.60         May         10.05         May         8.33         May         6.24         May         5.78         May         4.94         May         4.23           Jun         13.59         Jul         10.50         Jul         8.03         Jul         6.63         Jul         6.67         Jul         5.61         Jul         4.29         May         4.41         July         4.43           Aug         14.17         Aug         6.65         Aug         6.58         Aug         5.68         Aug         4.64         Aug         4.43           Sep         14.68         Oct         15.05         Oct         8.00         Cot         5.32         Oct         5.32         Oct         4.67         Sep         4.19           Dec         13.45         Dec         9.54         Dec         7.00         Dec         6.30         Oct         5.44         Jan 2006         4.59         Jan 2010         4.64           Jan 1982         14.22         Jan 1980         8.41         Jan 2002         5.44         Jan 2006         4.59         Jan 2010         4.64           Jan         13.24         Mar         7.33         Mar	Mar	12.69	Mar	11.81	Mar	9.17	Mar	6.82	Mar	6.93	Mar	5.34	Mar	4.78	Mar	3.64		
Jul         12.68         Jun         10.41         Jun         8.27         Jun         6.81         Jun         6.67         Jun         5.67         Jun         4.29         Jun         4.52           Jul         13.59         Jun         6.36         Jun         6.51         Jun         5.67         Jun         4.41           Aug         14.67         Sup         1.65         Sup         6.50         Sup         5.48         Sup         4.41           Sep         1.467         Sep         6.15         Sup         6.10         Sup         6.48         Sup         4.47         Sup         4.47         Aug         4.19           Ort         1.358         Ort         1.000         Ort         7.90         Ort         6.21         Nov         5.11         Nov         5.12         Nov         4.35         Mar         4.40           Jun         13.35         Dec         5.41         Jun         5.02         Apr         5.71         Mar         5.71         Mar         4.53         Feb         4.52         Jun         4.64           Jun         13.32         Mar         7.30         Apr         7.33         Mar	Apr	13.20	Apr	11.47	Apr	9.03	Apr	6.85	Apr	7.09	Apr	5.65	Apr	4.65	Apr	3.76		
Juli         15.9         Juli         16.70         Juli         6.61         Juli         6.61 </td <td>May</td> <td>13.60</td> <td>May</td> <td>11.05</td> <td>May</td> <td>8.83</td> <td>May</td> <td>6.92</td> <td>May</td> <td>6.94</td> <td>May</td> <td>5.78</td> <td>May</td> <td>4.49</td> <td>May</td> <td>4.23</td> <td></td> <td></td>	May	13.60	May	11.05	May	8.83	May	6.92	May	6.94	May	5.78	May	4.49	May	4.23		
Aug         14.7         Aug         0.66         Aug         6.58         Aug         5.48         Aug         4.64         Aug         4.37           Sep         14.68         Oct         10.50         Oct         8.00         Cot         6.00         Sep         6.33         Oct         5.32         Oct         4.67         Oct         4.19           Nov         13.35         Nov         10.06         Nov         7.90         Nov         6.21         Nov         5.11         Nov         4.13         Nov         4.31           Jan 1982         14.22         Jan 1980         9.40         Jan 1994         6.29         Jan 1985         5.81         Jan 2006         4.58         Feb         4.64           Mar         13.35         Mar         7.96         Mar         6.49         Feb         5.85         Mar         5.71         Mar         4.33         Mar         4.64           Mar         13.37         Apr         7.39         Apr         8.66         Apr         7.27         Apr         5.92         Apr         5.67         Apr         5.13         Jun         5.13         Jun         5.13         Jun         5.13         Jun<	Jun	12.96	Jun	10.44	Jun	8.27	Jun	6.81	Jun	6.77	Jun	5.67	Jun	4.29	Jun	4.52		
Sep         14.67         Sep         10.61         Sep         8.15         Sep         6.10         Sep         5.48         Sep         4.47         Sep         4.19           Oct         13.45         Nov         10.06         Nov         7.90         Nov         6.21         Nov         6.11         Nov         5.12         Nov         4.73         Nov         4.31           Dec         13.45         Dec         9.54         Dec         7.90         Nov         6.21         Nov         6.11         Nov         5.12         Nov         4.73         Nov         4.31           Jan 1980         14.22         Feb         8.33         Feb         6.89         Feb         5.89         Feb         5.71         Mar         4.78         Mar         4.60           Mar         13.37         Mar         7.52         Mar         8.76         Apr         7.21         Apr         5.73         Mar         5.20         Mar         5.20         Apr         5.64         Ard         5.99         Mar         5.20         Mar         5.13         Jun         4.31           Jan 1932         Jun         7.52         Mar         8.60 <t< td=""><td>Jul</td><td>13.59</td><td>Jul</td><td>10.50</td><td>Jul</td><td>8.08</td><td>Jul</td><td>6.63</td><td>Jul</td><td>6.51</td><td>Jul</td><td>5.61</td><td>Jul</td><td>4.41</td><td>July</td><td>4.41</td><td></td><td></td></t<>	Jul	13.59	Jul	10.50	Jul	8.08	Jul	6.63	Jul	6.51	Jul	5.61	Jul	4.41	July	4.41		
Sep         14.67         Sep         10.61         Sep         8.15         Sep         6.00         Sep         5.48         Sep         4.47         Sep         4.19           Oct         14.68         Oct         10.06         Nov         7.90         Nov         6.21         Nov         5.12         Nov         4.67         Oct         4.69           Dec         13.45         Dec         9.40         Jan 1980         8.20         Jan 1998         5.99         Dec         5.44         Jan 2010         4.60           Jan 1982         14.22         Feb         8.93         Feb         5.89         Feb         5.89         Feb         5.74         Apr         7.8         4.62           Mar         13.53         Mar         7.96         Mar         6.56         Mar         6.91         Mar         5.95         Mar         5.77         Mar         4.78         Mar         4.64           Apr         7.33         Apr         7.51         Mar         8.76         Apr         7.27         Apr         5.92         Jun         5.13         Jun         4.13           Jul         13.55         Jul         7.57         Jun	Aug	14.17	Aug	10.56	Aug	8.12	Aug	6.32	Aug	6.58	Aug	5.48	Aug	4.46	Aug	4.37		
Nov         13.35         Nov         10.06         Nov         7.90         Nov         6.21         Nov         5.12         Nov         4.73         Nov         4.31           Dec         14.42         Jan 1986         Jan 1986         Jan 1986         Jan 1986         Jan 1986         Jan 1987         Jan 1997	Sep	14.67	Sep	10.61	Sep	8.15	Sep	6.00	Sep	6.50		5.48	Sep	4.47		4.19		
Dec         13.45         Dec         9.40         Jan 1990         8.26         Jan 1990         6.29         Dec         5.99         Dec         4.64         Jan 2000         4.60         Jan 2000         Jan 2000         5.03         Feb         4.53         Feb         4.60         Jan 2000         Ja	Oct	14.68	Oct	10.50	Oct	8.00	Oct	5.94	Oct	6.33	Oct	5.32	Oct	4.67	Oct	4.19		
Jan 198214.22Jan 19869.40Jan 19908.26Jan 19946.29Jan 19985.81Jan 20025.44Jan 20064.59Jan 20104.60Feb13.23Mar7.36Mar6.50Feb6.89Feb5.39Feb4.58Feb4.62Apr13.37Apr7.39Mar8.76Apr6.91Mar5.95Mar5.71Apr5.06Apr4.69May13.24May7.52May8.73May7.41May5.33Feb4.63Jun4.13Jun13.92Jun7.57Jun8.66Jun7.40Jun5.70Jun5.64Apr5.16Jun4.13Jun13.55Jul7.57Jun8.66Jun7.40Jun5.70Jun5.83July5.13July3.99Acug12.77Aug7.33Aug8.66Aug7.48Jul5.64Aug5.00Aug3.09Sep12.07Sep7.62Sep9.03Sep7.71Sep5.01Oct4.33July5.33July5.33July5.13July5.13July5.13July5.13July5.13July5.13July5.13July5.13July5.13July5.13July5.13July5.13July5.14JulyJuly5.14July <td< td=""><td>Nov</td><td>13.35</td><td>Nov</td><td>10.06</td><td>Nov</td><td>7.90</td><td>Nov</td><td>6.21</td><td>Nov</td><td>6.11</td><td>Nov</td><td>5.12</td><td>Nov</td><td>4.73</td><td>Nov</td><td>4.31</td><td></td><td></td></td<>	Nov	13.35	Nov	10.06	Nov	7.90	Nov	6.21	Nov	6.11	Nov	5.12	Nov	4.73	Nov	4.31		
Feb14.22Feb8.33Feb8.30Feb6.49Feb5.89Feb5.39Feb4.58Feb4.62Mar13.53Mar7.96Mar8.56Mar6.91Mar5.95Mar5.71Mar4.73Mar4.64Apr13.37Apr7.39Apr7.36Apr7.27Apr5.92Apr5.67Apr5.06Apr4.69May13.24May7.52May8.73May7.41May5.33May5.64May5.13July4.13Jul13.55Jul7.27Jul8.60Jul7.84Jun5.68July5.13July3.99Aug12.77Aug7.33Aug8.66Aug7.49Aug5.54Aug5.08Aug5.00Aug3.87Sep12.07Sep7.62Sep9.03Sep7.11Sep5.20Sep4.76Sep3.07Oct11.17Oct7.70Oct8.86Oct7.94Oct5.01Oct4.95Nov4.85Oct3.87Nov10.54Nov7.52Nov8.26Nov5.25Nov4.94Jan 20074.85Jan 20114.52Jan 198310.63Jan 19877.39Jan 19967.65Jan 20034.94Jan 20074.85Jan 20114.52Feb	Dec	13.45	Dec	9.54	Dec	7.90	Dec	6.25	Dec	5.99	Dec	5.48	Dec	4.66	Dec	4.49		
Mar13.53Mar7.96Mar8.56Mar6.91Mar5.95Mar5.71Mar4.73Mar4.64Apr13.37Apr7.39Apr8.73Apr7.27Apr5.92Apr5.67Apr5.06Apr4.69May13.24May7.52May8.73May7.41May5.33May5.64May5.00May4.29Jun13.92Jun7.57Jun8.46Jun7.40Jun5.70Jun5.52Jun5.16Jun4.13Jul13.55Jul7.77Jun8.66Aug7.49Jun5.68Jul5.88Jul5.81July5.18July3.99Acug12.07Rog7.62Sep9.03Sep7.71Sep5.20Sep4.76Sep4.85Sep3.77Oct11.17Oct7.70Oct8.86Oct7.94Oct5.07Act4.95Nov4.95	Jan 1982	14.22	Jan 1986	9.40	Jan 1990	8.26	Jan 1994	6.29	Jan 1998	5.81	Jan 2002	5.44	Jan 2006	4.59	Jan 2010	4.60		
Apr13.37Apr7.39Apr8.76Apr7.27Apr5.92Apr5.67Apr5.06Apr4.69May13.24May7.52May8.73May7.41May5.33May5.64May5.20May4.29Jun13.95Jun7.57Jun8.46Jun7.40Jun5.70Jun5.52Jun5.16Jun4.13Jul13.55Jul7.27Jul8.50Jul7.58Jul5.64Aug5.83July5.13July3.99Aug12.77Aug7.33Aug8.68Aug7.49Aug5.20Sep4.76Sep4.85Sep3.77Oct11.17Oct7.70Oct8.66Oct7.94Oct5.01Oct4.93Oct4.85Oct3.87Nov10.54Nov7.52Nov8.54Nov8.08Nov5.25Nov4.93Nov4.95Oct4.85Sep3.77Oct11.17Oct7.37Dec8.24Nov7.87Dec5.06Dec4.92Nov4.68Dec4.42Jan 198310.63Jan 19877.39Jan 1997.85Jan 19995.16Jan 20034.94Jan 20074.88Dac 4.42Jan 198310.63Mar7.55Mar7.45Mar5.55Apr <td< td=""><td>Feb</td><td>14.22</td><td>Feb</td><td>8.93</td><td>Feb</td><td>8.50</td><td>Feb</td><td>6.49</td><td>Feb</td><td>5.89</td><td>Feb</td><td>5.39</td><td>Feb</td><td>4.58</td><td>Feb</td><td>4.62</td><td></td><td></td></td<>	Feb	14.22	Feb	8.93	Feb	8.50	Feb	6.49	Feb	5.89	Feb	5.39	Feb	4.58	Feb	4.62		
May13.24May7.52May8.73May7.41May5.93May5.64May5.20May4.29Jun13.92Jun7.57Jun8.46Jun7.40Jun5.70Jun5.52Jun5.16Jun4.13Jul13.55Jul7.77Jun8.46Jun7.40Jun5.70Jun5.52Jun5.16Jun4.13Aug12.77Aug7.33Aug8.86Aug7.49Aug5.54Aug5.08Aug5.00Aug3.80Sep12.07Sep7.62Sep9.03Sep7.14Sep5.20Sep4.76Sep4.85Sep3.77Oct11.17Oct7.70Oct8.66Oct7.94Oct5.01Oct4.93Nov4.69Nov4.19Dec10.54Nov7.52Nov8.54Nov8.08Nov5.25Nov4.95Nov4.69Nov4.19Jan 198310.63Jan 19877.39Jan 19957.61Feb5.07Feb4.81Feb4.82Feb4.52Feb10.68Kar7.55Mar7.57Jun8.03Feb7.61Feb5.37Feb4.81Feb4.82Feb4.52Mar10.63Mar7.55Mar7.54Mar7.56Mar7.55 <td< td=""><td>Mar</td><td>13.53</td><td>Mar</td><td>7.96</td><td>Mar</td><td>8.56</td><td>Mar</td><td>6.91</td><td>Mar</td><td>5.95</td><td>Mar</td><td>5.71</td><td>Mar</td><td>4.73</td><td>Mar</td><td>4.64</td><td></td><td></td></td<>	Mar	13.53	Mar	7.96	Mar	8.56	Mar	6.91	Mar	5.95	Mar	5.71	Mar	4.73	Mar	4.64		
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Oct         11.58         Oct         9.61         Oct         7.93         Oct         6.37         Oct         5.16         Oct         4.77         Oct         3.13           Nov         11.75         Nov         8.95         Nov         7.92         Nov         6.26         Nov         5.13         Nov         4.52         Nov         3.02	Aug				Aug			6.86	Aug				Aug		•			
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Dec 11.88 Dec 9.12 Dec 7.70 Dec 6.06 Dec 6.35 Dec 5.08 Dec 4.53 Dec 2.98	Nov																	
	Dec	11.88	Dec	9.12	Dec	7.70	Dec	6.06	Dec	6.35	Dec	5.08	Dec	4.53	Dec	2.98		

Sources:

http://finance.yahoo.com/q/hp?s=^TYX

 http://tinance.yahoo.com/q/hp?s=^1YX

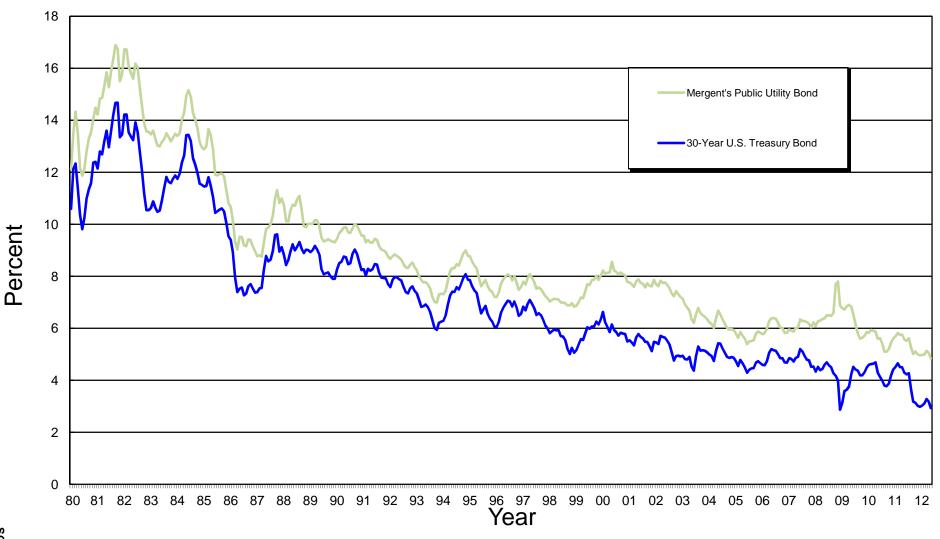
 http://research.stlouisfed.org/fred2/data/GS30.txt

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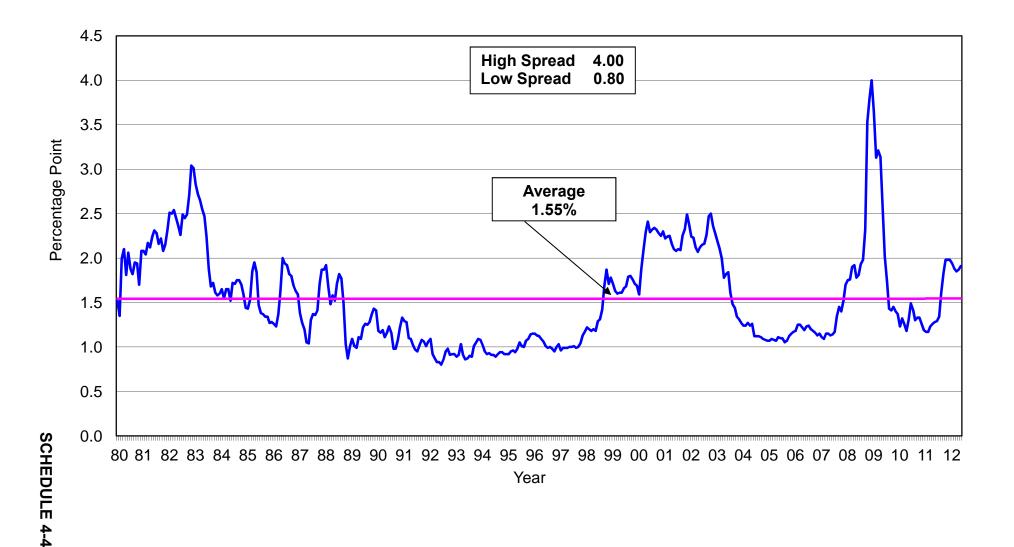
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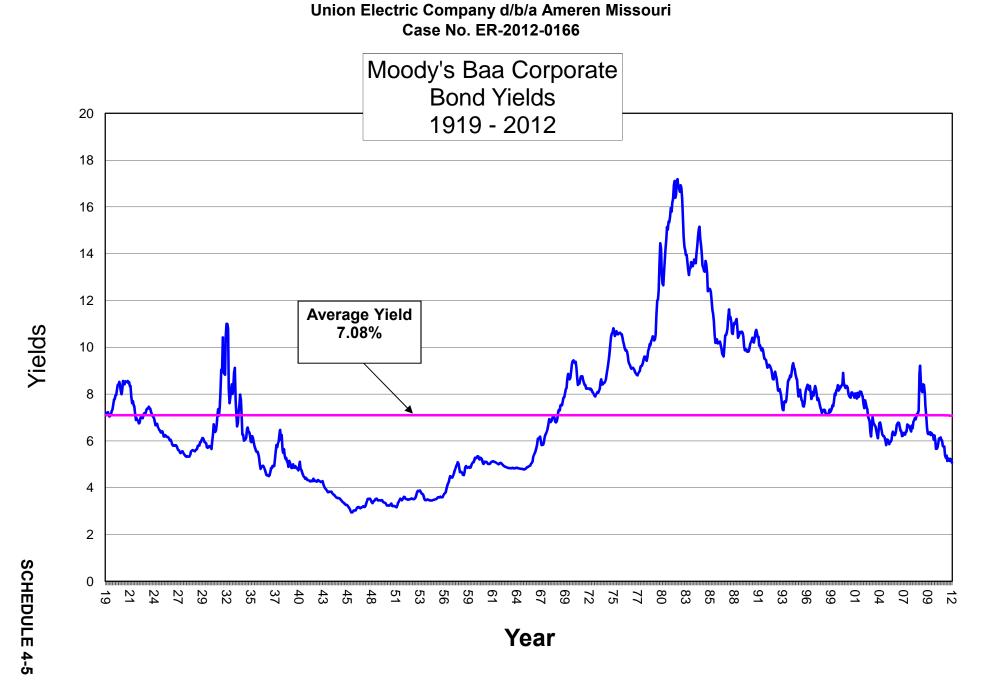
Average Yields on Mergent's Public Utility Bonds and Thirty-Year U.S. Treasury Bonds (1980 - 2012)



Monthly Spreads Between Yields on Mergent's Public Utility Bonds and Thirty-Year U.S. Treasury Bonds (1980 - 2012)

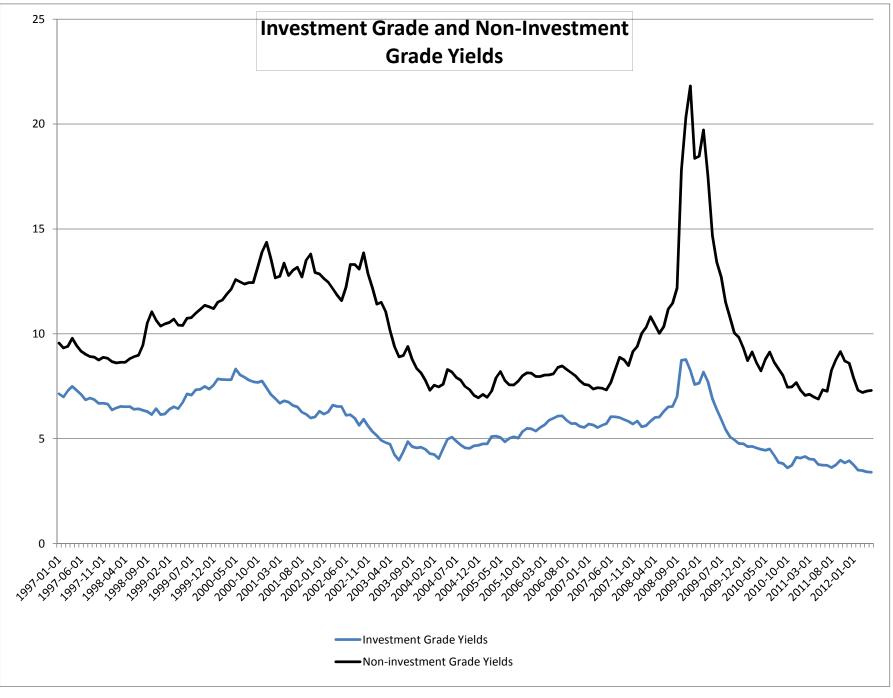


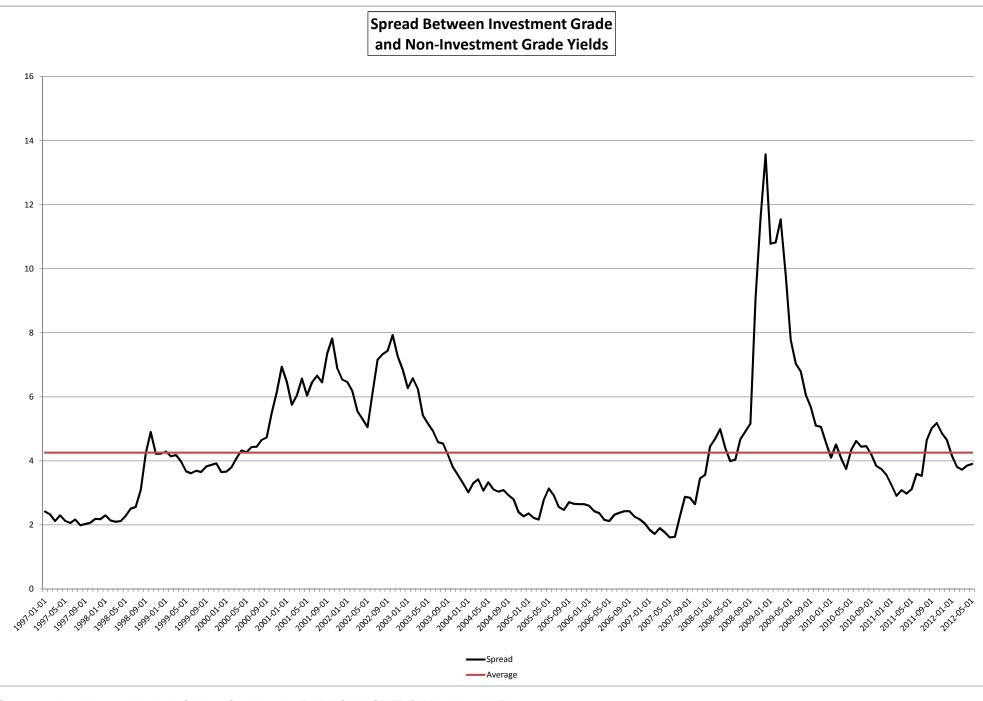
**SCHEDULE 4-4** 



Source: St. Louis Federal Reserve Website: http://stlouisfed.org

Union Electric Company d/b/a Ameren Missouri Case No. ER-2012-0166





Schedule 4-7 Sources: http://research.stlouisfed.org/fred2/series/BAMLC0A0CMEY?cid=32347 AND http://research.stlouisfed.org/fred2/series/BAMLH0A0HYM2EY?cid=32347

#### Historical Consolidated Capital Structures for Union Electric Company

#### (Millions of Dollars)

Capital Components	2007	2008	2009	2010	2011
Common Equity	\$3,488.0	\$3,449.0	\$3,944.0	\$4,073.0	\$3,957.0
Preferred Stock	113.0	113.0	\$113	80.0	80.0
Long-Term Debt	3,360.0 *	3,677.0 *	4,022.0 *	3,954.0 *	4,022.0
Short-Term Debt	82.0	343.0	0.0	0.0	0.0
Total	\$7,043.0	\$7,582.0	\$8,079.0	\$8,107.0	\$8,059.0

#### Historical Consolidated Capital Structures for Ameren

#### (Millions of Dollars)

Capital Components	2007	2008	2009	2010	2011
Common Equity	\$6,774.0	\$6,984.0	\$7,865.0	\$7,742.0	\$7,926.0
Preferred Stock	211.0	195.0	195.0	142.0	142.0
Long-Term Debt	5,912.0 *	6,934.0 *	7,317.0 *	7,008.0 *	6,856.0
Short-Term Debt	1,472.0	1,174.0	20.0	269.0	148.0
Total	\$14,369.0	\$15,287.0	\$15,397.0	\$15,161.0	\$15,072.0

Source: Ameren's Annual SEC 10-K Filings.

Note: \*Includes current maturities of long-term debt.

#### Historical Consolidated Capital Structures for Union Electric Company

## (in Percentages)

Capital Components	2007	2008	2009	2010	2011	5-Year Average
Common Equity	49.52%	45.49%	48.82%	50.24%	49.10%	48.63%
Preferred Stock	1.60%	1.49%	1.40%	0.99%	0.99%	1.29%
Long-Term Debt	47.71% *	48.50% *	49.78% *	48.77% *	49.91% *	48.93%
Short-Term Debt	1.16%	4.52%	0.00%	0.00%	0.00%	1.14%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

#### Historical Consolidated Capital Structures for Ameren

(in Percentages)

Capital Components	2007	2008	2009	2010	2011	5-Year Average
Common Equity	47.14%	45.69%	51.08%	51.07%	52.59%	49.51%
Preferred Stock	1.47%	1.28%	1.27%	0.94%	0.94%	1.18%
Long-Term Debt	41.14%	45.36%	47.52%	46.22%	45.49%	45.15%
Short-Term Debt	10.24%	7.68%	0.13%	1.77%	0.98%	4.16%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Sources: Ameren's 10-K Filings.

**SCHEDULE 5-2** 

# Capital Structure as of September 30, 2011 Union Electric Company

Capital Component	Dollar Amount	Percentage of Capital
Common Stock Equity	\$ 4,155,014,121	53.02%
Preferred Stock	\$ 81,827,509	1.04%
Long-Term Debt	\$ 3,600,099,506	45.94%
Short-Term Debt	\$ -	0.00%
Total Capitalization	\$ 7,836,941,136	100.00%

Source: Page 6 Company Witness Ryan J. Martin's Direct Testimony.

Criterior Solvecting Comparable Electric Utility Comparise(1)(2)(3)(4)(5)(6)(7)(8)(9)(10)(1)(1)(2)(3)(4)(5)(6)(7)(8)(9)(10)(1)(1)(2)(	(12) No Announced Merger or Acquisition Yes Yes Yes	(13) Comparable Company Met All Criteria Yes Yes Yes Yes Yes Yes
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Cleco Corp.CNLYesYesYesYesYesYesYesYesYesYesYesYesYesCMSYesYesYesNoConsol. EdisonEDYesYesNoDominion ResourcesDYesYesNoDTE EnergyDTEYesYesNoDuke EnergyDUKYesYesYesYesDuke EnergyDUKYesYesYesYesBase ElectricEEYesYesYesYesNoEl Paso ElectricEDEYesYesYesNoEntergy Corp.ETRYesYesYesYesNo	Yes	Yes
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Duke Energy     DUK     Yes     No       Edison Int <sup>1</sup> EIX     Yes     Yes     Yes     Yes     No       El Paso Electric     EE     Yes     Yes     Yes     No <sup>1.</sup> Empire Dist. Elec.     EDE     Yes     Yes     Yes     No       Entergy Corp.     ETR     Yes     Yes     Yes     Yes     Yes		
Edison IntEIXYesYesYesYesYesYesNoEl Paso ElectricEEYesYesYesNo <sup>1</sup> .Empire Dist. Elec.EDEYesYesYesYesNoEntergy Corp.ETRYesYesYesYesYesYesNo		
El Paso Electric     EE     Yes     Yes     Yes     No <sup>1</sup> .       Empire Dist. Elec.     EDE     Yes     Yes     Yes     No       Entergy Corp.     ETR     Yes     Yes     Yes     Yes     Yes     No		
Empire Dist. Elec.         EDE         Yes         Yes         Yes         No           Entergy Corp.         ETR         Yes         Yes         Yes         Yes         Yes         No		
Entergy Corp. ETR Yes Yes Yes Yes Yes Yes No		
Exelon Corp. EXC Yes No		
FirstEnergy Corp. FE Yes No		
Forisine. FTS.TO Yes NA		
G't Plains Energy GXP Yes	Yes	Yes
Hawaiian Elec. HE Yes No	\$7	\$7
DACORP, Inc. DA Yes	Yes	Yes
Integrys         TEG         Yes         No           ITC Holdings         ITC         Yes         NA		
MGE Energy MGEE Yes No		
NOCEEnergy NOCE 1CS NO NextEra Energy FPL Yes No		
Northeat Lifting NU Yes	No	
NorthWestern Corp NWE Yes Yes Yes No	140	
NSTAR NST Yes Yes NA		
NV Energy Inc. NVE Yes Yes Yes Yes Yes No		
OGE Energy OGE Yes No		
Otter Tail Cop. OTTR Yes No		
Perco Holdings POM Yes No		
Total Corp. PCG Yes Yes Yes Yes Yes Yes Yes No		
Pinnace West Capital PNW Yes	Yes	Yes
PNM Resources PNM Yes Yes Yes Yes Yes No		
Portland General POR Yes Yes No		
PPL Corp. PPL Yes No		
Progress Energy PGN Yes	No	
Public Serv. Enterprise PEG Yes No		
SCANA Corp. SCG Yes No		
Sempra Energy SRE Yes No		
Southern Co. SO Yes	Yes	Yes
TECO Energy TE Yes Yes No		
UIL Holdings UIL Yes Yes No		
UniSource Energy UNS Yes Yes Yes Yes Yes NA		
UNITIL Corp. UTL Yes Yes No		
Vectren Corp. VVC Yes Yes No		
	Yes	Yes
Westar Energy WR Yes		
Westar Energy         WR         Yes         Yes <t< td=""><td></td><td>Vac</td></t<>		Vac
Westar Energy WR Yes	Yes Yes	Yes Yes

Sources: Columns 1, 2, 3, 6, 7, 8 and 11 = The Value Line Investment Survey: Ratings & Reports.

Column 4 = Edison Electric Institute 2011 Financial Review

Column 5 = May 2012 AUS Utility Reports and Companies' 10Ks and 10Qs.

Column 8 = Reuters.com on May 1, 2012.

Columns 9 and 10 = S&P RatingsDirect

Notes: 1. No dividends per share.

NA = Not available.

# Comparable Electrical Utility Companies for Union Electric Company d/b/a Ameren Missouri

S&P

				Corporate
	Ticker			Credit
Number	Symbol	Company Name		Rating
1	LNT	Alliant Energy		BBB+
2	AEP	American Electric Power		BBB
3	CNL	Cleco Corp.		BBB
4	GXP	Great Plains Energy		BBB
5	IDA	IDACORP, Inc.		BBB
6	PNW	Pinnacle West Capital		BBB
7	SO	Southern Company		А
8	WR	Westar Energy, Inc.		BBB
9	WEC	Wisconsin Energy		A-
10	XEL	Xcel Energy		A-
			Average	BBB+

Ameren and Union Electric

BBB-

# Ten-Year Dividends Per Share, Earnings Per Share & Book Value Per Share Growth Rates for the Comparable Electric Utility Companies

	10-`	Year Annual	Compound Growth Rates		
					Average of 10 Year Annual
Company Name		EPS	DPS	BVPS	Compound Growth Rates
Alliant Energy		2.00%	-3.00%	0.50%	-0.17%
American Electric Power		2.50%	-3.50%	1.00%	0.00%
Cleco Corp.		4.50%	1.00%	7.50%	4.33%
Great Plains Energy		-2.50%	-6.50%	4.50%	-1.50%
IDACORP, Inc.		-0.50%	-4.50%	3.50%	-0.50%
Pinnacle West Capital		-0.20%	4.00%	2.00%	1.93%
Southern Company		2.00%	2.50%	2.50%	2.33%
Westar Energy, Inc.		0.00%	-4.50%	-3.00%	-2.50%
Wisconsin Energy		9.00%	3.00%	6.50%	6.17%
Xcel Energy		-1.00%	-4.00%	0.00%	-1.67%
Average		1.58%	-1.55%	2.50%	0.84%

Source: The Value Line Investment Survey: Ratings & Reports, February 24, March 23, and May 4, 2012.

# Five-Year Dividends Per Share, Earnings Per Share & Book Value Per Share Growth Rates for the Comparable Electric Utility Companies

	5-Year Annual Compo	ound Growth Rates		
Company Name	EPS	DPS	BVPS	Average of 5 Year Annual Compound Growth Rates
Alliant Energy	5.00%	8.00%	3.50%	5.50%
American Electric Power	2.00%	2.00%	5.00%	3.00%
Cleco Corp.	7.50%	0.50%	11.00%	6.33%
Great Plains Energy	-9.50%	-13.00%	5.50%	-5.67%
IDACORP, Inc.	8.50%	0.00%	5.00%	4.50%
Pinnacle West Capital	1.00%	1.50%	0.00%	0.83%
Southern Company	2.50%	4.00%	5.50%	4.00%
Westar Energy, Inc.	1.00%	7.00%	6.00%	4.67%
Wisconsin Energy	10.00%	14.00%	7.00%	10.33%
Xcel Energy	4.50%	3.50%	4.50%	4.17%
Average	3.25%	2.75%	5.30%	3.77%

Source: The Value Line Investment Survey: Ratings & Reports, February 24, March 23, and May 4, 2012.

# Five-Year Projected Dividends Per Share, Earnings Per Share & Book Value Per Share Growth Rates for the Comparable Electric Utility Companies

	5-Year Projected Co	ompound Growth Rates		
				Average of 5-Year Annual Compound
Company Name	EPS	DPS	BVPS	Growth Rates
Alliant Energy	6.50%	5.50%	3.00%	5.00%
American Electric Power	4.00%	3.50%	5.00%	4.17%
Cleco Corp.	8.00%	9.50%	6.50%	8.00%
Great Plains Energy	5.50%	5.00%	2.00%	4.17%
IDACORP, Inc.	3.00%	8.00%	5.50%	5.50%
Pinnacle West Capital	5.00%	2.50%	3.50%	3.67%
Southern Company	5.00%	4.00%	5.50%	4.83%
Westar Energy, Inc.	6.50%	3.00%	4.00%	4.50%
Wisconsin Energy	6.50%	13.50%	3.50%	7.83%
Xcel Energy	6.00%	5.00%	4.50%	5.17%
Average	5.60%	5.95%	4.30%	5.28%

Source: The Value Line Investment Survey: Ratings & Reports, February 24, March 23, and May 4, 2012.

# Historical and Projected Growth Rates for the Comparable Electric Utility Companies

	(1)	(2)	(3)	(4)	(5)	(6)
	Historical	Historical	Projected			
	10-Year	5-Year	5-Year	Projected		
	Compound	Compound	Compound	5-Year	Projected	Average
	Growth Rates	Growth Rates	Growth Rates	EPS Growth	3-5 Year	Projected
	(DPS, EPS and	(DPS, EPS and	(DPS, EPS and	Reuters	EPS Growth	EPS Growth
Company Name	BVPS)	BVPS)	BVPS)	(Mean)	Value Line	Growth
Alliant Energy	-0.17%	5.50%	5.00%	5.75%	6.50%	6.13%
American Electric Power	0.00%	3.00%	4.17%	3.90%	4.00%	3.95%
Cleco Corp.	4.33%	6.33%	8.00%	3.00%	8.00%	5.50%
Great Plains Energy	-1.50%	-5.67%	4.17%	5.22%	5.50%	5.36%
IDACORP, Inc.	-0.50%	4.50%	5.50%	4.50%	3.00%	3.75%
Pinnacle West Capital	1.93%	0.83%	3.67%	5.76%	5.00%	5.38%
Southern Company	2.33%	4.00%	4.83%	5.54%	5.00%	5.27%
Westar Energy, Inc.	-2.50%	4.67%	4.50%	6.28%	6.50%	6.39%
Wisconsin Energy	6.17%	10.33%	7.83%	6.96%	6.50%	6.73%
Xcel Energy	-1.67%	4.17%	5.17%	5.08%	6.00%	5.54%
Average	0.84%	3.77%	5.28%	5.20%	5.60%	5.40%

#### Proposed Range of Growth for Comparables:

5.00%-5.50%

Column 6 = [(Column 4 + Column 5)/2]

Sources: Column 1 = Schedule 9-1.

Column 2 = Schedule 9-2.

Column 4 = Reuters.com on May 1, 2012.

Column 5 = The Value Line Investment Survey: Ratings & Reports, February 24, March 23, and May 4, 2012.

## Average High / Low Stock Price for March 2012 through May 2012 for the Comparable Electric Utility Companies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	March	n 2012	April	2012	May	2012	Average High/Low
	High	Low	High	Low	High	Low	Stock
	Stock	Stock	Stock	Stock	Stock	Stock	Price
Company Name	Price	Price	Price	Price	Price	Price	(03/12 - 05/12)
Alliant Energy	43.76	42.10	45.38	42.00	45.67	43.00	43.65
American Electric Power	39.22	37.46	38.95	36.97	39.07	37.43	38.18
Cleco Corp.	39.96	37.97	40.93	38.16	41.29	39.46	39.63
Great Plains Energy	20.37	19.45	20.50	19.47	20.50	19.56	19.98
IDACORP, Inc.	41.57	39.66	41.55	39.00	41.03	38.17	40.16
Pinnacle West Capital	48.22	46.15	48.56	45.95	49.59	47.41	47.65
Southern Company	45.50	43.71	46.00	44.22	46.30	44.95	45.11
Westar Energy, Inc.	28.19	27.12	28.74	26.80	28.96	27.35	27.86
Wisconsin Energy	35.35	33.72	36.84	34.54	37.97	36.14	35.76
Xcel Energy	27.25	25.92	27.13	25.89	28.12	26.75	26.84

Notes:

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

Source: http://finance.yahoo.com

#### Constant-Growth Discounted Cash Flow (DCF) Estimated Costs of Common Equity for the Comparable Electric Utility Companies

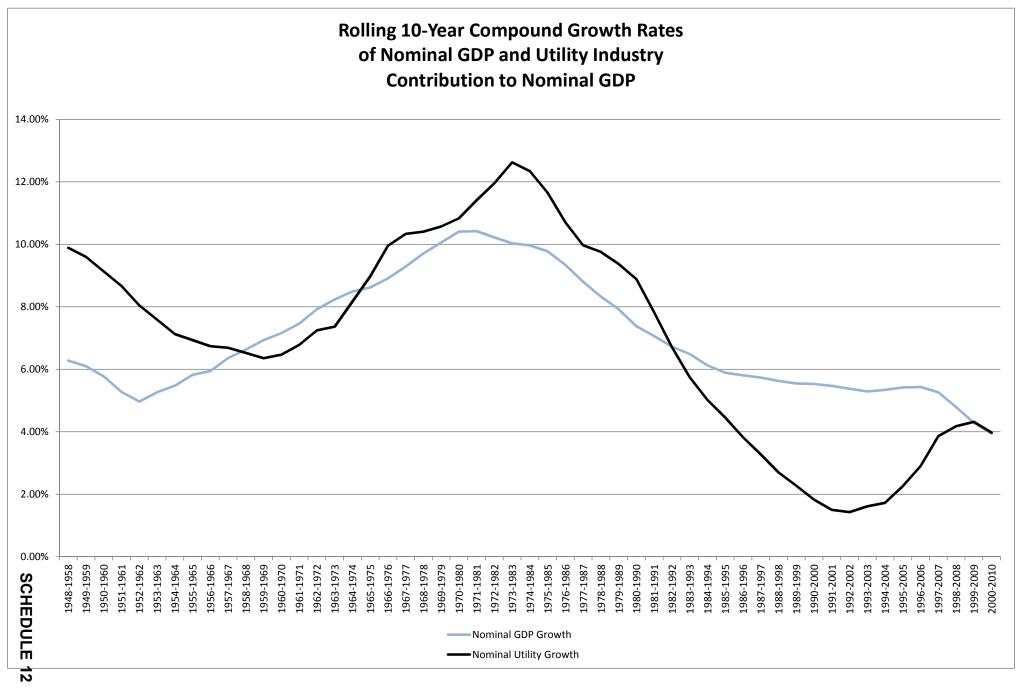
	(1)	(2)	(3)	
		Average		
	Expected	High/Low	Projected	
	Annual	Stock	Dividenc	1
Company Name	Dividend	Price	Yield	_
Alliant Energy	\$1.84	\$43.652	4.22%	
American Electric Power	\$1.93	\$38.183	5.04%	
Cleco Corp.	\$1.29	\$39.628	3.25%	
Great Plains Energy	\$0.87	\$19.975	4.35%	
IDACORP, Inc.	\$1.35	\$40.163	3.37%	
Pinnacle West Capital	\$2.13	\$47.647	4.48%	
Southern Company	\$1.97	\$45.113	4.37%	
Westar Energy, Inc.	\$1.34	\$27.860	4.80%	
Wisconsin Energy	\$1.27	\$35.760	3.54%	
Xcel Energy	\$1.08	\$26.843	4.03%	_
Average			4.14%	=
	Proposed Div	vidend Yield:		4.10%
	Proposed Ra	nge of Growth:		5.00% - 5.50%
	Estimated Pr	9.10 - 9.60%		

Notes: Column 1 = Estimated Dividend Declared per share represents a weighted average of Value Line projected dividends for 2012 and 2013.

Column 3 = ( Column 1 / Column 2 ).

Sources: Column 1 = The Value Line Investment Survey: Ratings & Reports, February 24, March 23, and May 4, 2012.

Column 2 = Schedule 10.



# Multiple-Stage Discounted Cash Flow (DCF) Estimated Costs of Common Equity for the Comparable Electric Utility Companies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Annualized	Growth			Growth			Growth	
	Quarterly	Years			Years			in	Cost of
Company Name	Dividend	1-5	6	7	8	9	10	Perpetuity	Equity
Alliant Energy	\$1.80	6.13%	5.60%	5.08%	4.56%	4.04%	3.52%	3.00%	8.15%
American Electric Power	\$1.88	3.95%	3.79%	3.63%	3.48%	3.32%	3.16%	3.00%	8.38%
Cleco Corp.	\$1.25	5.50%	5.08%	4.67%	4.25%	3.83%	3.42%	3.00%	6.81%
Great Plains Energy	\$0.85	5.36%	4.97%	4.57%	4.18%	3.79%	3.39%	3.00%	8.07%
IDACORP, Inc.	\$1.32	3.75%	3.63%	3.50%	3.38%	3.25%	3.13%	3.00%	6.55%
Pinnacle West Capital	\$2.10	5.38%	4.98%	4.59%	4.19%	3.79%	3.40%	3.00%	8.26%
Southern Company	\$1.89	5.27%	4.89%	4.51%	4.14%	3.76%	3.38%	3.00%	7.97%
Westar Energy, Inc.	\$1.32	6.39%	5.83%	5.26%	4.70%	4.13%	3.57%	3.00%	8.99%
Wisconsin Energy	\$1.20	6.73%	6.11%	5.49%	4.87%	4.24%	3.62%	3.00%	7.37%
Xcel Energy	\$1.04	5.54%	5.12%	4.69%	4.27%	3.85%	3.42%	3.00%	7.68%

#### 7.82%

Sources: Column 1 = The Value Line Investment Survey: Ratings & Reports, February 24, March 23, and May 4, 2012. Column 2 = Reuters.com on May 1, 2012.

Column 8 = See range of averages from Schedules 14-1 through Schedules 14-4 and Schedule 15

# Multiple-Stage Discounted Cash Flow (DCF) Estimated Costs of Common Equity for the Comparable Electric Utility Companies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Annualized	Growth			Growth			Growth	
	Quarterly	Years			Years			in	Cost of
Company Name	Dividend	1-5	6	7	8	9	10	Perpetuity	Equity
Alliant Energy	\$1.80	6.13%	5.69%	5.25%	4.81%	4.38%	3.94%	3.50%	8.52%
American Electric Power	\$1.88	3.95%	3.88%	3.80%	3.73%	3.65%	3.58%	3.50%	8.74%
Cleco Corp.	\$1.25	5.50%	5.17%	4.83%	4.50%	4.17%	3.83%	3.50%	7.21%
Great Plains Energy	\$0.85	5.36%	5.05%	4.74%	4.43%	4.12%	3.81%	3.50%	8.44%
IDACORP, Inc.	\$1.32	3.75%	3.71%	3.67%	3.63%	3.58%	3.54%	3.50%	6.95%
Pinnacle West Capital	\$2.10	5.38%	5.07%	4.75%	4.44%	4.13%	3.81%	3.50%	8.62%
Southern Company	\$1.89	5.27%	4.98%	4.68%	4.39%	4.09%	3.80%	3.50%	8.34%
Westar Energy, Inc.	\$1.32	6.39%	5.91%	5.43%	4.95%	4.46%	3.98%	3.50%	9.34%
Wisconsin Energy	\$1.20	8.06%	7.30%	6.54%	5.78%	5.02%	4.26%	3.50%	8.11%
Xcel Energy	\$1.04	5.54%	5.20%	4.86%	4.52%	4.18%	3.84%	3.50%	8.06%

8.23%

Sources: Column 1 = The Value Line Investment Survey: Ratings & Reports, February 24, March 23, and May 4, 2012. Column 2 = Reuters.com on May 1, 2012.

Column 8 = See range of averages from Schedules 14-1 through Schedules 14-4 and Schedule 15.

# Multiple-Stage Discounted Cash Flow (DCF) Estimated Costs of Common Equity for the Comparable Electric Utility Companies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Annualized	Growth			Growth			Growth	
	Quarterly	Years			Years			in	Cost of
Company Name	Dividend	1-5	6	7	8	9	10	Perpetuity	Equity
Alliant Energy	\$1.80	6.13%	5.77%	5.42%	5.06%	4.71%	4.35%	4.00%	8.89%
American Electric Power	\$1.88	3.95%	3.96%	3.97%	3.98%	3.98%	3.99%	4.00%	9.10%
Cleco Corp.	\$1.25	5.50%	5.25%	5.00%	4.75%	4.50%	4.25%	4.00%	7.61%
Great Plains Energy	\$0.85	5.36%	5.13%	4.91%	4.68%	4.45%	4.23%	4.00%	8.81%
IDACORP, Inc.	\$1.32	3.75%	3.79%	3.83%	3.88%	3.92%	3.96%	4.00%	7.36%
Pinnacle West Capital	\$2.10	5.38%	5.15%	4.92%	4.69%	4.46%	4.23%	4.00%	8.99%
Southern Company	\$1.89	5.27%	5.06%	4.85%	4.64%	4.42%	4.21%	4.00%	8.71%
Westar Energy, Inc.	\$1.32	6.39%	5.99%	5.59%	5.20%	4.80%	4.40%	4.00%	9.69%
Wisconsin Energy	\$1.20	8.06%	7.38%	6.71%	6.03%	5.35%	4.68%	4.00%	8.49%
Xcel Energy	\$1.04	5.54%	5.28%	5.03%	4.77%	4.51%	4.26%	4.00%	8.44%

#### 8.61%

Sources: Column 1 = The Value Line Investment Survey: Ratings & Reports, February 24, March 23, and May 4, 2012. Column 2 = Reuters.com on May 1, 2012.

Column 8 = See range of averages from Schedules 14-1 through Schedules 14-4 and Schedule 15.

# Multiple-Stage Discounted Cash Flow (DCF) Estimated Costs of Common Equity for the Comparable Electric Utility Companies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Annualized	Growth			Growth			Growth	
	Quarterly	Years			Years			in	Cost of
Company Name	Dividend	1-5	6	7	8	9	10	Perpetuity	Equity
Alliant Energy	\$1.80	6.13%	5.82%	5.52%	5.21%	4.91%	4.60%	4.30%	9.11%
American Electric Power	\$1.88	3.95%	4.01%	4.07%	4.13%	4.18%	4.24%	4.30%	9.33%
Cleco Corp.	\$1.25	5.50%	5.30%	5.10%	4.90%	4.70%	4.50%	4.30%	7.85%
Great Plains Energy	\$0.85	5.36%	5.18%	5.01%	4.83%	4.65%	4.48%	4.30%	9.04%
IDACORP, Inc.	\$1.32	3.75%	3.84%	3.93%	4.03%	4.12%	4.21%	4.30%	7.60%
Pinnacle West Capital	\$2.10	5.38%	5.20%	5.02%	4.84%	4.66%	4.48%	4.30%	9.21%
Southern Company	\$1.89	5.27%	5.11%	4.95%	4.79%	4.62%	4.46%	4.30%	8.94%
Westar Energy, Inc.	\$1.32	6.39%	6.04%	5.69%	5.35%	5.00%	4.65%	4.30%	9.91%
Wisconsin Energy	\$1.20	8.06%	7.43%	6.81%	6.18%	5.55%	4.93%	4.30%	8.72%
Xcel Energy	\$1.04	5.54%	5.33%	5.13%	4.92%	4.71%	4.51%	4.30%	8.67%

#### 8.84%

Sources: Column 1 = The Value Line Investment Survey: Ratings & Reports, February 24, March 23, and May 4, 2012. Column 2 = Reuters.com on May 1, 2012.

Column 8 = See range of averages from Schedules 14-1 through Schedules 14-4 and Schedule 15.

## Central Region Electric Utility Proxy Group

EPS

#### **10-Year Compound Growth Rate Averages (1968-1999)**

	Dayton P & L/	Detroit Edison/			Kansas City	Northern States	Okla. Gas & Electric/ OGE		WPS Resources/ Wisconsin	WI Energy/ WI Electric	
Years	DPL	DTE	Empire	IPALCO	P & L	Power	Energy Corp.	SJL&P	Public Serv.	Power	Average
1968-70 to 1978-80	-1.74%	-0.57%	0.24%	4.13%	1.77%	4.13%	1.16%	1.40%	6.23%	6.32%	2.31%
1969-71 to 1979-81	-0.21%	0.05%	-0.64%	4.30%	2.62%	4.02%	0.48%	1.66%	6.60%	6.79%	2.57%
1970-72 to 1980-82	0.98%	-0.46%	0.41%	3.14%	3.24%	4.48%	1.88%	2.66%	6.41%	7.24%	3.00%
1971-73 to 1981-83	2.72%	0.53%	2.64%	2.87%	4.83%	6.11%	2.90%	4.03%	6.92%	7.77%	4.13%
1972-74 to 1982-84	3.71%	1.48%	5.33%	4.69%	6.44%	7.64%	3.02%	5.65%	7.78%	8.25%	5.40%
1973-75 to 1983-85	4.19%	3.60%	6.21%	5.91%	7.60%	8.08%	2.58%	6.94%	8.54%	9.39%	6.30%
1974-76 to 1984-86	4.19%	4.41%	6.50%	5.86%	5.75%	8.03%	2.81%	7.89%	7.98%	9.60%	6.30%
1975-77 to 1985-87	5.10%	4.69%	5.70%	4.19%	4.26%	7.59%	2.90%	8.10%	6.81%	9.18%	5.85%
1976-78 to 1986-88	5.84%	4.29%	5.68%	5.40%	3.02%	7.24%	3.92%	7.95%	5.98%	8.86%	5.82%
1977-79 to 1987-89	6.16%	3.93%	5.49%	5.09%	4.12%	6.73%	5.22%	8.49%	5.08%	8.96%	5.93%
1978-80 to 1988-90	5.61%	4.41%	5.52%	5.11%	3.09%	6.07%	6.65%	8.20%	4.35%	9.08%	5.81%
1979-81 to 1989-91	3.75%	5.35%	6.06%	4.67%	1.90%	5.45%	6.56%	7.68%	3.70%	8.07%	5.32%
1980-82 to 1990-92	2.46%	6.83%	4.65%	4.43%	0.31%	3.15%	3.63%	5.76%	3.91%	6.16%	4.13%
1981-83 to 1991-93	1.00%	6.06%	2.56%	3.11%	-1.01%	1.58%	1.58%	3.37%	3.45%	4.33%	2.60%
1982-84 to 1992-94	1.31%	4.75%	-0.16%	1.44%	-2.03%	0.83%	0.71%	2.88%	2.19%	2.64%	1.46%
1983-85 to 1993-95	1.36%	2.97%	-1.18%	1.78%	-2.21%	1.85%	1.81%	2.46%	1.03%	2.58%	1.24%
1984-86 to 1994-96	1.71%	1.79%	-1.39%	3.31%	-1.08%	2.26%	2.15%	2.56%	0.20%	2.27%	1.38%
1985-87 to 1995-97	1.65%	0.64%	-1.47%	4.22%	0.35%	1.90%	2.19%	1.90%	0.12%	-0.46%	1.10%
1986-88 to 1996-98	2.28%	0.57%	-0.92%	4.59%	1.57%	1.50%	2.11%	1.34%	-0.86%	-2.24%	0.99%
1987-89 to 1997-99	2.62%	1.08%	-0.46%	5.06%	0.15%	0.40%	2.36%	0.49%	-0.38%	-3.07%	0.83%
Average	2.73%	2.82%	2.54%	4.17%	2.23%	4.45%	2.83%	4.57%	4.30%	5.59%	3.62%

## Union Electric Company d/b/a Ameren Missouri Case No. ER-2012-0166 Central Region Electric Utility Proxy Group DPS

# **10-Year Compound Growth Rate Averages (1968-1999)**

	Dayton	Detroit					Okla. Gas &		WPS Resources/	WI Energy/	
	P & L/	Edison/			Kansas City	Northern States	Electric/ OGE		Wisconsin	WI Electric	
Years	DPL	DTE	Empire	IPALCO	P&L	Power	Energy Corp.	SJL&P	Public Serv.	Power	Average
1968-70 to 1978-80	0.90%	1.17%	2.45%	3.52%	3.34%	3.37%	3.79%	1.89%	4.36%	5.46%	3.03%
1969-71 to 1979-81	0.87%	1.43%	2.17%	4.15%	3.03%	3.76%	3.52%	1.89%	4.69%	5.70%	3.12%
1970-72 to 1980-82	1.04%	1.59%	1.90%	4.69%	3.17%	4.02%	3.32%	2.01%	5.13%	5.98%	3.28%
1971-73 to 1981-83	1.41%	1.64%	1.98%	4.92%	3.56%	4.39%	3.35%	2.28%	5.64%	6.23%	3.54%
1972-74 to 1982-84	1.70%	1.60%	2.32%	4.95%	4.13%	4.88%	3.49%	2.82%	6.18%	6.37%	3.84%
1973-75 to 1983-85	1.89%	1.48%	2.86%	5.03%	4.45%	5.60%	3.62%	3.50%	6.72%	6.52%	4.17%
1974-76 to 1984-86	1.89%	1.48%	3.31%	5.19%	4.12%	6.31%	3.75%	4.32%	7.18%	6.78%	4.43%
1975-77 to 1985-87	2.01%	1.44%	3.77%	5.73%	3.40%	6.78%	3.91%	4.97%	7.38%	7.08%	4.65%
1976-78 to 1986-88	2.26%	1.28%	4.14%	5.65%	2.96%	6.95%	4.04%	5.36%	7.30%	7.34%	4.73%
1977-79 to 1987-89	2.56%	0.94%	4.50%	5.49%	3.16%	6.96%	4.14%	5.72%	7.00%	7.51%	4.80%
1978-80 to 1988-90	2.83%	0.86%	4.81%	4.96%	3.58%	6.86%	4.27%	6.10%	6.66%	7.65%	4.86%
1979-81 to 1989-91	2.92%	0.99%	5.08%	4.80%	3.77%	6.72%	4.33%	6.53%	6.26%	7.68%	4.91%
1980-82 to 1990-92	2.83%	1.38%	5.27%	4.53%	3.78%	6.54%	4.30%	6.63%	5.83%	7.59%	4.87%
1981-83 to 1991-93	2.59%	1.70%	5.18%	4.24%	3.47%	6.22%	4.02%	6.49%	5.30%	7.29%	4.65%
1982-84 to 1992-94	2.59%	1.93%	4.80%	3.96%	3.02%	5.75%	3.64%	6.03%	4.65%	6.89%	4.33%
1983-85 to 1993-95	2.89%	2.06%	4.22%	3.75%	2.72%	5.14%	3.21%	5.50%	3.88%	6.44%	3.98%
1984-86 to 1994-96	3.41%	2.06%	3.58%	3.69%	3.14%	4.49%	2.77%	4.90%	3.15%	6.00%	3.72%
1985-87 to 1995-97	3.79%	2.06%	2.92%	1.92%	3.74%	3.91%	2.33%	4.42%	2.63%	5.54%	3.33%
1986-88 to 1996-98	3.95%	2.06%	2.30%	0.76%	3.99%	3.46%	1.87%	3.92%	2.39%	5.00%	2.97%
1987-89 to 1997-99	3.81%	2.06%	1.74%	-0.41%	3.52%	3.11%	1.42%	3.37%	2.31%	4.36%	2.53%
Average	2.41%	1.56%	3.46%	4.08%	3.50%	5.26%	3.46%	4.43%	5.23%	6.47%	3.99%

# Central Region Electric Utility Proxy Group BVPS 10-Year Compound Growth Rate Averages (1968-1999)

#### Okla. Gas & WPS Resources/ Dayton Detroit WI Energy/ P & L/ Edison/ Kansas City Electric/ OGE Northern States Wisconsin WI Electric Years DPL DTE Empire **IPALCO** P&L Power Energy Corp. SJL&P Public Serv. Power Average 1.88% 4.34% 4.13% 1.40% 0.04% 2.37% 5.21% 5.76% 1.28% 4.03% 3.05% 1968-70 to 1978-80 1.93% 4.19% 4.37% 1969-71 to 1979-81 0.84% -0.35% 4.93% 1.51% 4.58% 1.15% 3.71% 2.69% 0.28% -0.88% 1.63% 4.43% 1.19% 4.15% 3.83% 1.13% 4.50% 3.84% 2.41% 1970-72 to 1980-82 0.16% -1.30% 1.58% 3.84% 1.20% 4.31% 3.00% 1.31% 4.57% 4.09% 2.27% 1971-73 to 1981-83 0.27% 1.35% 4.72% 4.89% 2.42% 1.89% 1972-74 to 1982-84 -1.51% 3.77% 2.66% 1.65% 4.49% 2.32% 0.25% -1.27% 3.99% 1.88% 5.18% 2.33% 2.36% 5.27% 5.02% 2.73% 1973-75 to 1983-85 2.82% 0.30% -0.77% 4.47% 2.26% 5.56% 2.43% 3.27% 5.56% 5.52% 3.14% 1974-76 to 1984-86 0.27% -0.18% 3.17% 4.63% 2.54% 5.73% 2.33% 4.20% 5.57% 5.86% 3.41% 1975-77 to 1985-87 2.32% 0.66% 3.51% 4.82% 5.80% 2.33% 4.89% 5.42% 3.53% 1976-78 to 1986-88 -0.61% 6.11% 1977-79 to 1987-89 1.13% -1.05% 3.79% 4.77% 2.28% 5.80% 2.30% 5.41% 5.16% 6.38% 3.60% 1.80% 4.17% 4.79% 2.28% 5.74% 2.57% 5.69% 4.77% 6.69% 3.72% 1978-80 to 1988-90 -1.34% 4.59% 2.31% -0.30% 4.84% 2.44% 5.65% 2.92% 5.82% 4.27% 6.91% 3.95% 1979-81 to 1989-91 2.29% 0.97% 4.88% 4.92% 2.41% 5.43% 2.96% 5.72% 3.96% 6.94% 4.05% 1980-82 to 1990-92 1.97% 4.82% 3.95% 2.03% 4.84% 2.10% 5.14% 2.75% 5.41% 3.75% 6.74% 1981-83 to 1991-93 4.77% 1.84% 2.72% 4.36% 1.71% 2.37% 5.01% 3.57% 6.33% 3.72% 1982-84 to 1992-94 4.50% 2.33% 2.95% 3.83% 1.17% 4.46% 2.16% 4.60% 3.29% 5.91% 3.48% 4.15% 1983-85 to 1993-95 2.78% 2.82% 3.34% 3.73% 0.78% 4.21% 1.91% 4.27% 2.99% 5.48% 3.23% 1984-86 to 1994-96 2.92% 3.14% 2.52% 2.52% 0.41% 4.01% 1.85% 3.99% 2.77% 4.81% 2.89% 1985-87 to 1995-97 2.56% 0.50% 3.81% 1.86% 2.43% 2.69% 3.26% 3.25% 1.45% 3.75% 3.99% 1986-88 to 1996-98 2.20% 0.42% 2.20% 1987-89 to 1997-99 3.42% 4.16% 1.19% 3.56% 2.04% 3.47% 3.17% 2.58% 1.54% 0.60% 3.13% 4.09% 1.63% 4.83% 2.75% 3.72% 4.17% 5.30% 3.18% Average

# Central Region Electric Utility Proxy Group DPS, EPS, BVPS & GDP 10-Year Compound Growth Rate Averages (1968-1999)

DPS	_	EPS		BVPS		Average	GDP	
	10 yr compound		10 yr compound		10 yr compound	DPS, EPS and		10 yr compound
Years	growth rate avgs	Years	growth rate avgs	Years	growth rate avgs	BVPS	Years	growth rate avgs
1000 70 to 1070 00	2.020/	1000 70 to 1070 00	2 210/	1000 70 to 1070 00	2.050/	2 700/	1000 70 to 1070 00	10.050/
1968-70 to 1978-80	3.03%	1968-70 to 1978-80	2.31%	1968-70 to 1978-80	3.05%	2.79%	1968-70 to 1978-80	10.05%
1969-71 to 1979-81	3.12%	1969-71 to 1979-81	2.57%	1969-71 to 1979-81	2.69%	2.79%	1969-71 to 1979-81	10.41%
1970-72 to 1980-82	3.28%	1970-72 to 1980-82	3.00%	1970-72 to 1980-82	2.41%	2.90%	1970-72 to 1980-82	10.42%
1971-73 to 1981-83	3.54%	1971-73 to 1981-83	4.13%	1971-73 to 1981-83	2.27%	3.32%	1971-73 to 1981-83	10.22%
1972-74 to 1982-84	3.84%	1972-74 to 1982-84	5.40%	1972-74 to 1982-84	2.42%	3.89%	1972-74 to 1982-84	10.03%
1973-75 to 1983-85	4.17%	1973-75 to 1983-85	6.30%	1973-75 to 1983-85	2.73%	4.40%	1973-75 to 1983-85	9.96%
1974-76 to 1984-86	4.43%	1974-76 to 1984-86	6.30%	1974-76 to 1984-86	3.14%	4.63%	1974-76 to 1984-86	9.77%
1975-77 to 1985-87	4.65%	1975-77 to 1985-87	5.85%	1975-77 to 1985-87	3.41%	4.64%	1975-77 to 1985-87	9.34%
1976-78 to 1986-88	4.73%	1976-78 to 1986-88	5.82%	1976-78 to 1986-88	3.53%	4.69%	1976-78 to 1986-88	8.80%
1977-79 to 1987-89	4.80%	1977-79 to 1987-89	5.93%	1977-79 to 1987-89	3.60%	4.77%	1977-79 to 1987-89	8.32%
1978-80 to 1988-90	4.86%	1978-80 to 1988-90	5.81%	1978-80 to 1988-90	3.72%	4.79%	1978-80 to 1988-90	7.92%
1979-81 to 1989-91	4.91%	1979-81 to 1989-91	5.32%	1979-81 to 1989-91	3.95%	4.72%	1979-81 to 1989-91	7.38%
1980-82 to 1990-92	4.87%	1980-82 to 1990-92	4.13%	1980-82 to 1990-92	4.05%	4.35%	1980-82 to 1990-92	7.06%
1981-83 to 1991-93	4.65%	1981-83 to 1991-93	2.60%	1981-83 to 1991-93	3.95%	3.74%	1981-83 to 1991-93	6.72%
1982-84 to 1992-94	4.33%	1982-84 to 1992-94	1.46%	1982-84 to 1992-94	3.72%	3.17%	1982-84 to 1992-94	6.49%
1983-85 to 1993-95	3.98%	1983-85 to 1993-95	1.24%	1983-85 to 1993-95	3.48%	2.90%	1983-85 to 1993-95	6.12%
1984-86 to 1994-96	3.72%	1984-86 to 1994-96	1.38%	1984-86 to 1994-96	3.23%	2.78%	1984-86 to 1994-96	5.89%
1985-87 to 1995-97	3.33%	1985-87 to 1995-97	1.10%	1985-87 to 1995-97	2.89%	2.44%	1985-87 to 1995-97	5.81%
1986-88 to 1996-98	2.97%	1986-88 to 1996-98	0.99%	1986-88 to 1996-98	2.69%	2.22%	1986-88 to 1996-98	5.73%
1987-89 to 1997-99	2.53%	1987-89 to 1997-99	0.83%	1987-89 to 1997-99	2.58%	1.98%	1987-89 to 1997-99	5.63%
Average	3.99%	Average	3.62%	Average	3.18%		Average	8.10%

Average of 10-year Rolling Averages EPS, DPS and BVPS

3.59%

Source: Value Line Investment Survey

# **Electric Utility**

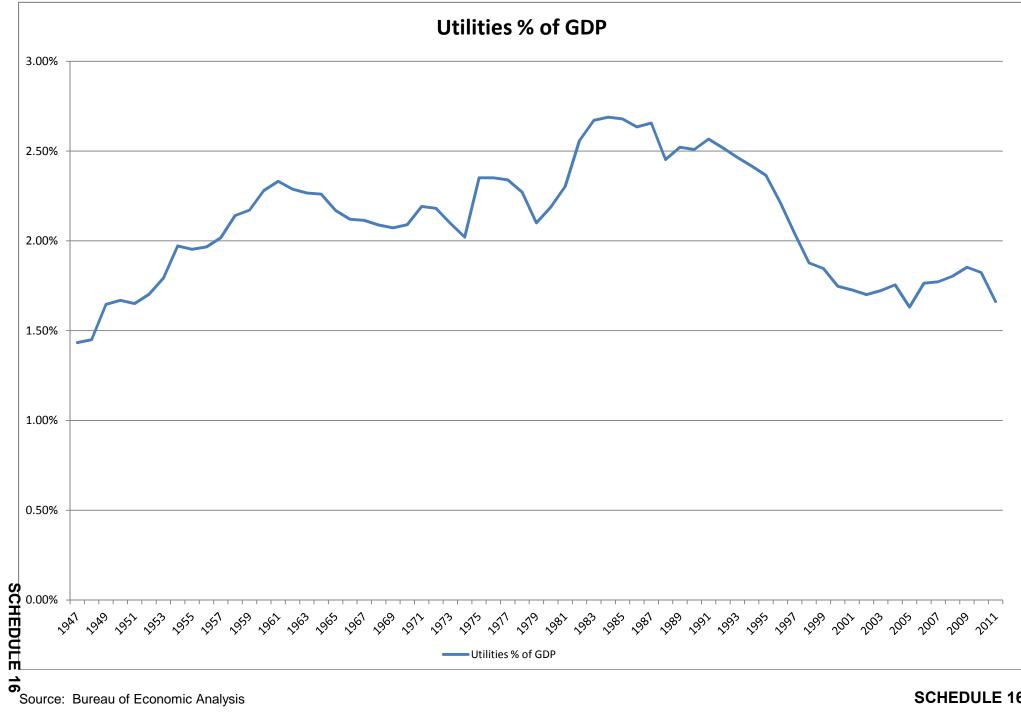
DPS, EPS, BVPS & GDP

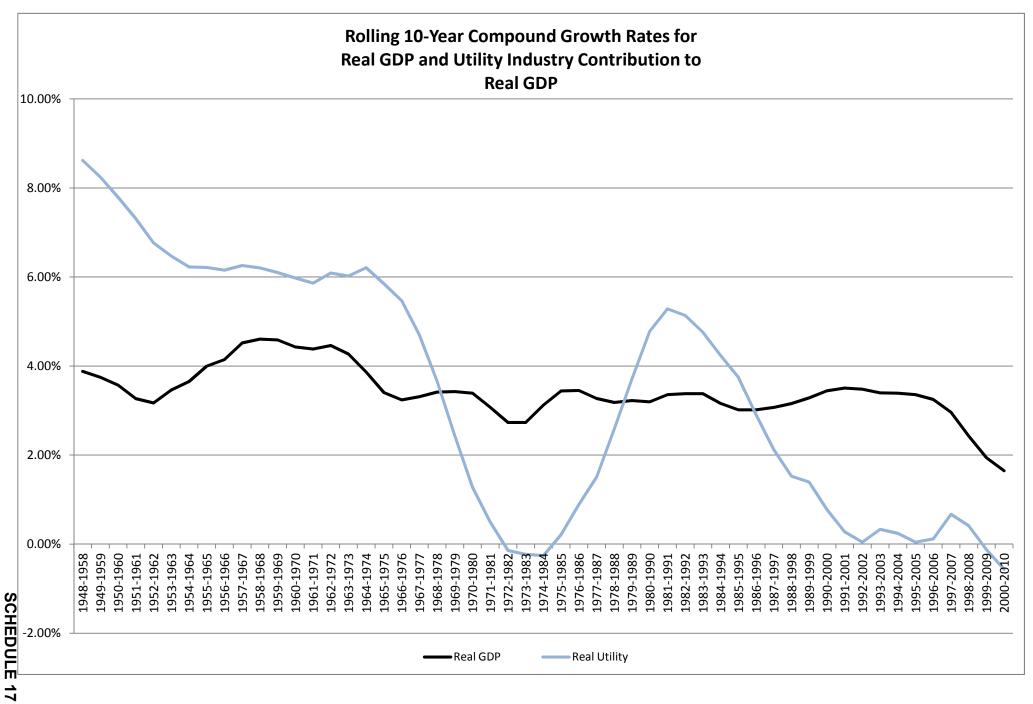
#### **10-Year Compound Growth Rate Averages (1947-1999)**

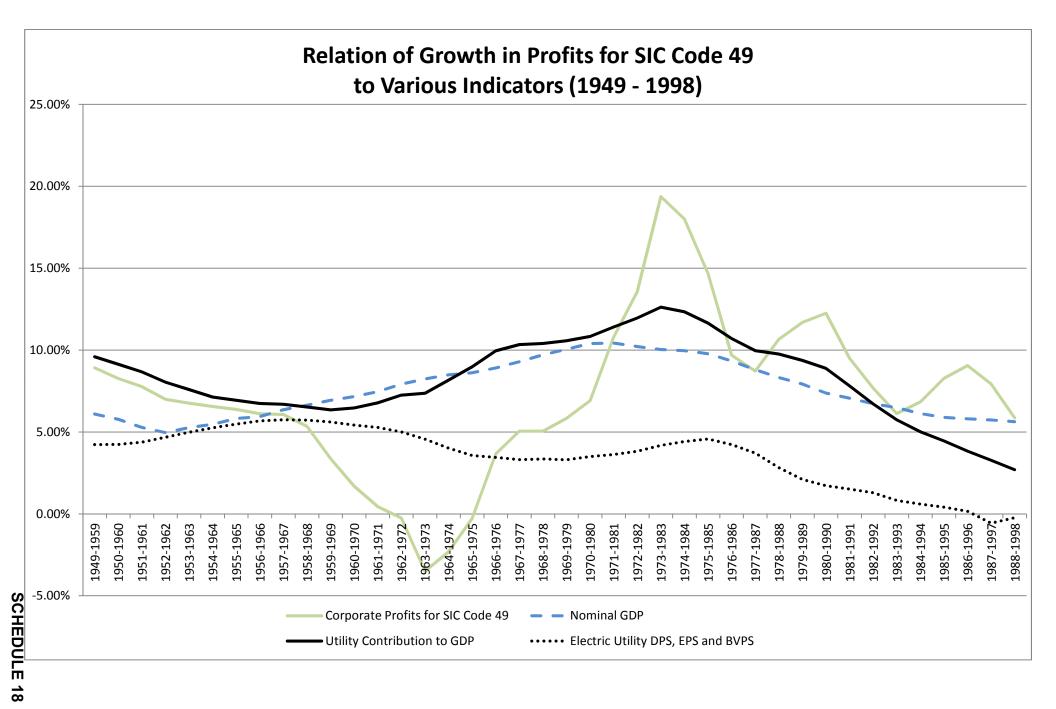
DPS		EPS	_	BVPS	_	GDP	_
	10 yr compound						
Years	growth rate avgs						
1947-49 to 1957-59	4.58%	1947-49 to 1957-59	4.92%	1947-49 to 1957-59	3.10%	1947-49 to 1957-59	6.28%
1948-50 to 1958-60	4.49%	1948-50 to 1958-60	4.91%	1948-50 to 1958-60	3.30%	1948-50 to 1958-60	6.10%
1949-51 to 1959-60	4.33%	1949-51 to 1959-60	5.00%	1949-51 to 1959-60	3.39%	1949-51 to 1959-60	5.77%
1950-52 to 1960-62	4.31%	1950-52 to 1960-62	5.35%	1950-52 to 1960-62	3.48%	1950-52 to 1960-62	5.27%
1951-53 to 1961-63	4.48%	1951-53 to 1961-63	5.76%	1951-53 to 1961-63	3.79%	1951-53 to 1961-63	4.96%
1952-54 to 1962-64	4.74%	1952-54 to 1962-64	5.99%	1952-54 to 1962-64	4.22%	1952-54 to 1962-64	5.26%
953-55 to 1963-65	5.16%	1953-55 to 1963-65	6.09%	1953-55 to 1963-65	4.53%	1953-55 to 1963-65	5.47%
954-56 to 1964-66	5.52%	1954-56 to 1964-66	6.26%	1954-56 to 1964-66	4.65%	1954-56 to 1964-66	5.82%
1955-57 to 1965-67	5.87%	1955-57 to 1965-67	6.50%	1955-57 to 1965-67	4.65%	1955-57 to 1965-67	5.94%
956-58 to 1966-68	5.97%	1956-58 to 1966-68	6.57%	1956-58 to 1966-68	4.69%	1956-58 to 1966-68	6.36%
957-59 to 1967-69	5.96%	1957-59 to 1967-69	6.50%	1957-59 to 1967-69	4.73%	1957-59 to 1967-69	6.63%
958-60 to 1968-70	5.89%	1958-60 to 1968-70	6.06%	1958-60 to 1968-70	4.88%	1958-60 to 1968-70	6.93%
1959-61 to 1969-71	5.68%	1959-61 to 1969-71	5.60%	1959-61 to 1969-71	4.97%	1959-61 to 1969-71	7.16%
1960-62 to 1970-72	5.42%	1960-62 to 1970-72	5.27%	1960-62 to 1970-72	5.14%	1960-62 to 1970-72	7.46%
1961-63 to 1971-73	5.00%	1961-63 to 1971-73	4.95%	1961-63 to 1971-73	5.05%	1961-63 to 1971-73	7.92%
1962-64 to 1972-74	4.35%	1962-64 to 1972-74	4.41%	1962-64 to 1972-74	4.92%	1962-64 to 1972-74	8.24%
1963-65 to 1973-75	4.55%	1962-64 to 1972-74	4.41% 3.71%	1963-65 to 1972-74	4.92%	1962-64 to 1972-74	8.49%
1964-66 to 1974-76	2.77%	1964-66 to 1974-76	3.02%	1964-66 to 1974-76	4.83%	1964-66 to 1974-76	8.62%
					4.92 %		
965-67 to 1975-77	2.46%	1965-67 to 1975-77	2.90%	1965-67 to 1975-77		1965-67 to 1975-77	8.91%
1966-68 to 1976-78	2.47%	1966-68 to 1976-78	2.63%	1966-68 to 1976-78	4.83%	1966-68 to 1976-78	9.29%
967-69 to 1977-79	2.71%	1967-69 to 1977-79	2.71%	1967-69 to 1977-79	4.63%	1967-69 to 1977-79	9.71%
1968-70 to 1978-80	3.03%	1968-70 to 1978-80	2.49%	1968-70 to 1978-80	4.40%	1968-70 to 1978-80	10.05%
1969-71 to 1979-81	3.46%	1969-71 to 1979-81	2.88%	1969-71 to 1979-81	4.16%	1969-71 to 1979-81	10.41%
1970-72 to 1980-82	3.89%	1970-72 to 1980-82	3.19%	1970-72 to 1980-82	3.78%	1970-72 to 1980-82	10.42%
1971-73 to 1981-83	4.29%	1971-73 to 1981-83	3.69%	1971-73 to 1981-83	3.49%	1971-73 to 1981-83	10.22%
972-74 to 1982-84	4.82%	1972-74 to 1982-84	4.36%	1972-74 to 1982-84	3.37%	1972-74 to 1982-84	10.03%
1973-75 to 1983-85	5.27%	1973-75 to 1983-85	4.80%	1973-75 to 1983-85	3.17%	1973-75 to 1983-85	9.96%
974-76 to 1984-86	5.57%	1974-76 to 1984-86	5.15%	1974-76 to 1984-86	3.01%	1974-76 to 1984-86	9.77%
1975-77 to 1985-87	5.43%	1975-77 to 1985-87	4.45%	1975-77 to 1985-87	2.81%	1975-77 to 1985-87	9.34%
1976-78 to 1986-88	4.98%	1976-78 to 1986-88	3.44%	1976-78 to 1986-88	2.71%	1976-78 to 1986-88	8.80%
1977-79 to 1987-89	4.32%	1977-79 to 1987-89	1.78%	1977-79 to 1987-89	2.36%	1977-79 to 1987-89	8.32%
1978-80 to 1988-90	3.59%	1978-80 to 1988-90	0.82%	1978-80 to 1988-90	1.88%	1978-80 to 1988-90	7.92%
1979-81 to 1989-91	2.99%	1979-81 to 1989-91	0.34%	1979-81 to 1989-91	1.82%	1979-81 to 1989-91	7.38%
1980-82 to 1990-92	2.46%	1980-82 to 1990-92	0.16%	1980-82 to 1990-92	1.93%	1980-82 to 1990-92	7.06%
1981-83 to 1991-93	1.93%	1981-83 to 1991-93	-0.50%	1981-83 to 1991-93	2.43%	1981-83 to 1991-93	6.72%
1982-84 to 1992-94	1.37%	1982-84 to 1992-94	-1.81%	1982-84 to 1992-94	2.90%	1982-84 to 1992-94	6.49%
1983-85 to 1993-95	0.87%	1983-85 to 1993-95	-1.71%	1983-85 to 1993-95	2.62%	1983-85 to 1993-95	6.12%
1984-86 to 1994-96	0.49%	1984-86 to 1994-96	-1.51%	1984-86 to 1994-96	2.25%	1984-86 to 1994-96	5.89%
1985-87 to 1995-97	0.19%	1985-87 to 1995-97	-1.51%	1985-87 to 1995-97	1.78%	1985-87 to 1995-97	5.81%
1986-88 to 1996-98	-0.35%	1986-88 to 1996-98	-2.94%	1986-88 to 1996-98	1.59%	1986-88 to 1996-98	5.73%
1987-89 to 1997-99	-0.70%	1987-89 to 1997-99	-2.50%	1987-89 to 1997-99	2.51%	1987-89 to 1997-99	5.63%
Verage	3.74%	Average	3.18%	Average	3.63%	Average	7.53%

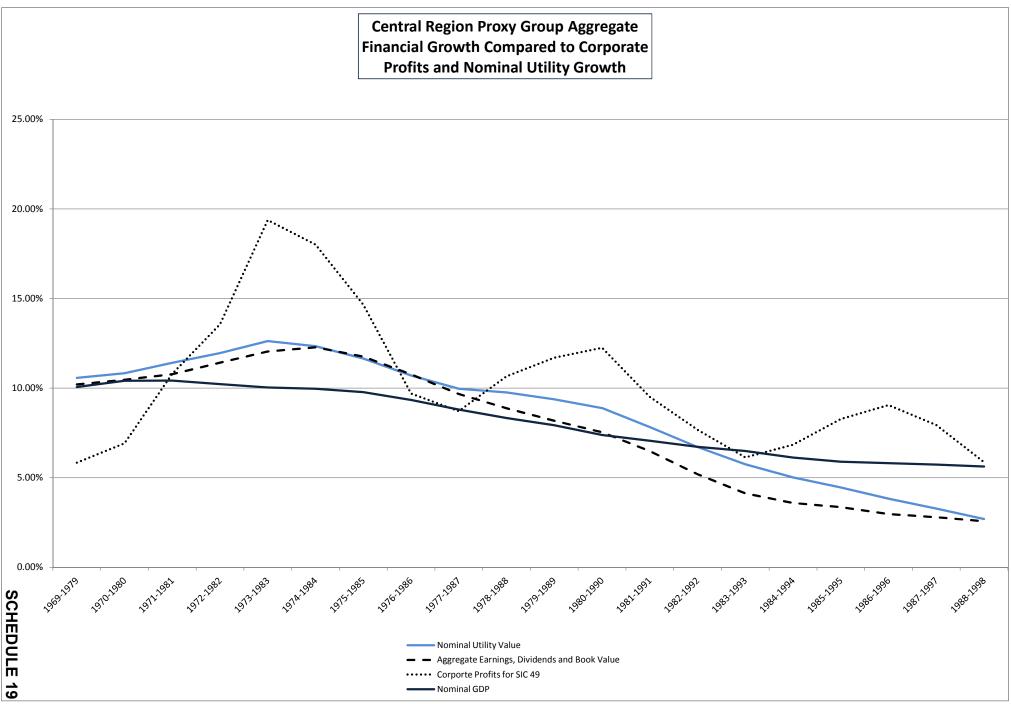
Average of 10-year Rolling Averages EPS, DPS and BVPS

Source: 2003 Mergent Public Utility and Transportation Manual

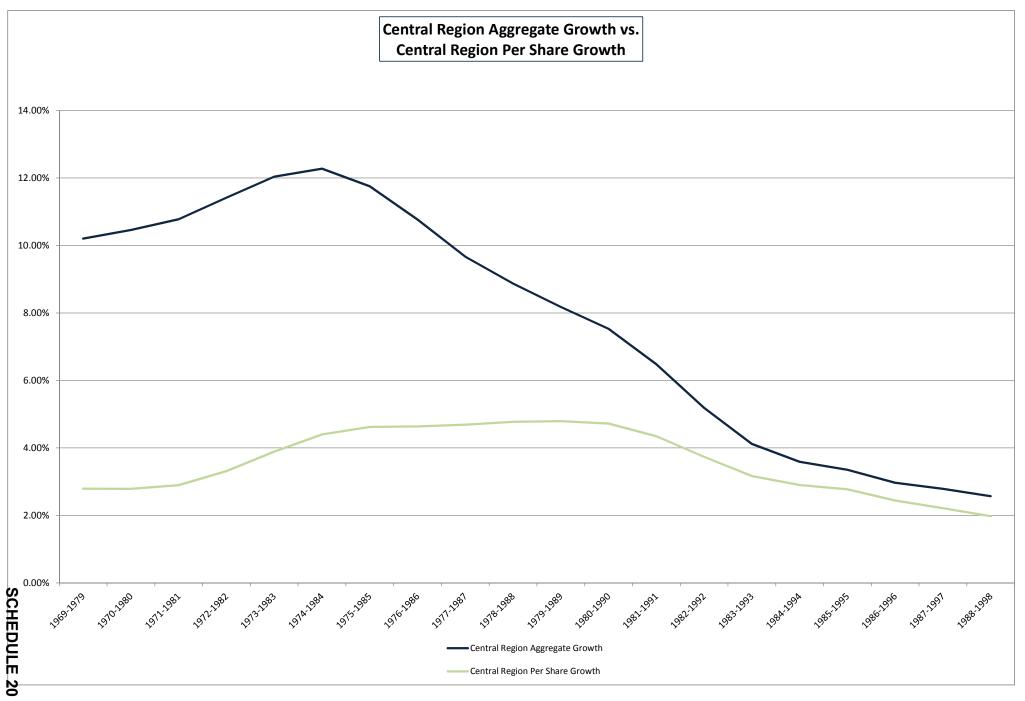






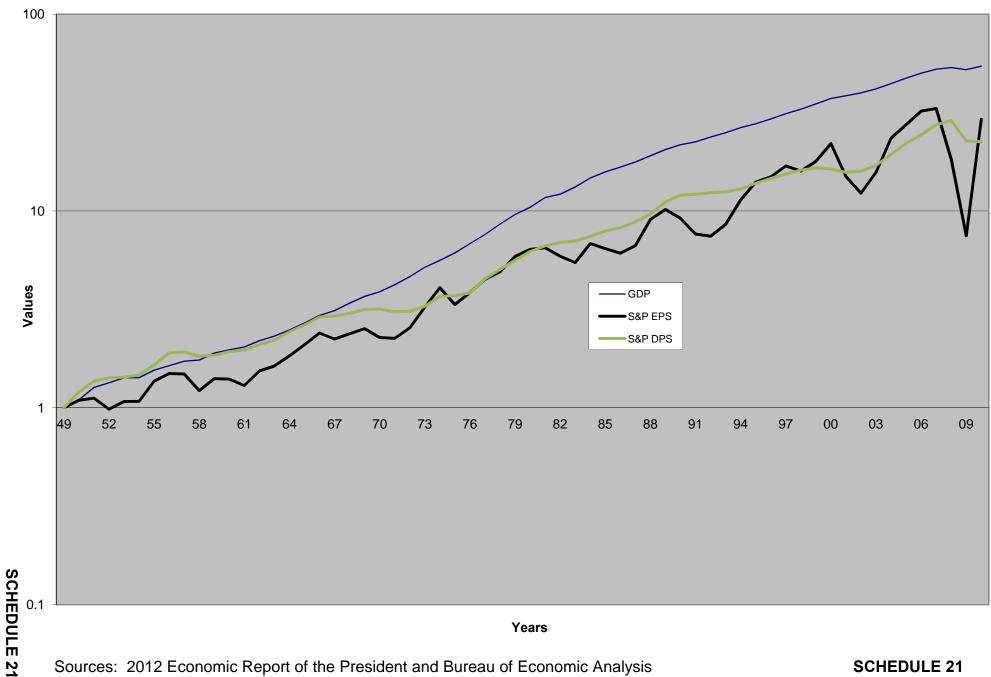


Sources: Bureau of Economic Analysis and Value Line



Source: Value Line

# Comparison of Nominal GDP to S&P 500 EPS and DPS



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

	(1)	(2)	(3)	(4)	(5)	(6)
			Arithmetic	Geometric	Arithmetic	Geometric
			Average	Average	CAPM	CAPM
			Market	Market	Cost of	Cost of
	Risk	Company's	Risk	Risk	Common	Common
	Free	Value Line	Premium	Premium	Equity	Equity
Company Name	Rate	Beta	(1926-2011)	(1926-2011)	(1926-2011)	(1926-2011)
Alliant Energy	3.13%	0.75	5.70%	4.10%	7.41%	6.21%
American Electric Power	3.13%	0.70	5.70%	4.10%	7.12%	6.00%
Cleco Corp.	3.13%	0.70	5.70%	4.10%	7.12%	6.00%
Great Plains Energy	3.13%	0.75	5.70%	4.10%	7.41%	6.21%
IDACORP, Inc.	3.13%	0.70	5.70%	4.10%	7.12%	6.00%
Pinnacle West Capital	3.13%	0.70	5.70%	4.10%	7.12%	6.00%
Southern Company	3.13%	0.55	5.70%	4.10%	6.27%	5.39%
Westar Energy, Inc.	3.13%	0.75	5.70%	4.10%	7.41%	6.21%
Wisconsin Energy	3.13%	0.65	5.70%	4.10%	6.84%	5.80%
Xcel Energy	3.13%	0.65	5.70%	4.10%	6.84%	5.80%
Average		0.69			7.06%	5.96%

- Column 1 = The appropriate yield is equal to the average 30-year U.S. Treasury Bond yield for March, April and May 2012 which was obtained from the St. Louis Federal Reserve website at http://research.stlouisfed.org/fred2/series/GS30/22.
- Column 2 = Beta is a measure of the movement and relative risk of an individual stock to the market as a whole as reported by the Value Line Investment Survey: Ratings & Reports, March 23, May 4, and May 25, 2012.
- Column 3 = The Market Risk Premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk free investment. The appropriate Market Risk Premium for the period 1926 2011 was determined to be 5.70% based on an arithmetic average as calculated in Ibbotson Associates, Inc.'s Stocks, Bonds, Bills, and Inflation: 2012 Yearbook.
- Column 4 = The Market Risk Premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk free investment. The appropriate Market Risk Premium for the period 1926 2011 was determined to be 4.1% based on a geometric average as calculated in Ibbotson Associates, Inc.'s Stocks, Bonds, Bills, and Inflation: 2012 Yearbook.

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

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

## Weighted Cost of Capital as of September 30, 2011 for Union Electric Company

Weighted Cost of Capital Using Common Equity Return of:

Percentage	Embedded			
of Capital	Cost	8.00%	8.50%	9.00%
53.02%		4.24%	4.51%	4.77%
1.04%	4.180%	0.04%	0.04%	0.04%
45.94%	5.885%	2.70%	2.70%	2.70%
100.00%		6.99%	7.25%	7.52%
	53.02% 1.04% 45.94%	53.02% 1.04% 4.180% 45.94% 5.885%	53.02%        4.24%         1.04%       4.180%       0.04%         45.94%       5.885%       2.70%	53.02%        4.24%       4.51%         1.04%       4.180%       0.04%       0.04%         45.94%       5.885%       2.70%       2.70%

Notes:

See Schedule 5 for the Capital Structure Ratios.

Union Electric Provided Embedded Cost of Long-Term Debt and Embedded Cost of Preferred Stock in Response to Staff Data Request