

## **RESUME OF ROGER A. MORIN**

**(Spring 2008)**

**NAME:** Roger A. Morin

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**DATE OF BIRTH:** 3/5/1945

**PRESENT EMPLOYER:** Georgia State University  
Robinson College of Business  
Atlanta, GA 30303

**RANK:** Emeritus Professor of Finance

**HONORS:** Professor of Finance for Regulated Industry  
Director Center for the Study of Regulated Industry,  
Robinson College of Business, Georgia State University.

### **EDUCATIONAL HISTORY**

- Bachelor of Electrical Engineering, McGill University,  
Montreal, Canada, 1967.
- Master of Business Administration, McGill University,  
Montreal, Canada, 1969.
- PhD in Finance & Econometrics, Wharton School of Finance,  
University of Pennsylvania, 1976.

## **EMPLOYMENT HISTORY**

- Lecturer, Wharton School of Finance, Univ. of Pennsylvania, 1972-3
- Assistant Professor, University of Montreal School of Business, 1973-1976.
- Associate Professor, University of Montreal School of Business, 1976-1979.
- Professor of Finance, Georgia State University, 1979-2008
- Professor of Finance for Regulated Industry and Director, Center for the Study of Regulated Industry, Robinson College of Business, Georgia State University, 1985-2008
- Visiting Professor of Finance, Amos Tuck School of Business, Dartmouth College, Hanover, N.H., 1986
- Emeritus Professor of Finance, Georgia State University, 2007-8

## **OTHER BUSINESS ASSOCIATIONS**

- Communications Engineer, Bell Canada, 1962-1967.
- Member of the Board of Directors, Financial Research Institute of Canada, 1974-1980.
- Co-founder and Director, Canadian Finance Research Foundation, 1977.
- Vice-President of Research, Garmaise-Thomson & Associates, Investment Management Consultants, 1980-1981.
- Executive Visions Inc., Board of Directors, Member.
- Board of External Advisors, College of Business, Georgia State University, Member 1987-1991.

**PROFESSIONAL CLIENTS**

AGL Resources  
AT & T Communications  
Alagasco - Energen  
Alaska Anchorage Municipal Light & Power  
Alberta Power Ltd.  
Allete  
Ameren  
American Water Works Company  
Ameritech  
Arkansas Western Gas  
Baltimore Gas & Electric – Constellation Energy  
Bangor Hydro-Electric  
B.C. Telephone  
B C GAS  
Bell Canada  
Bellcore  
Bell South Corp.  
Bruncor (New Brunswick Telephone)  
Burlington-Northern  
C & S Bank  
Cajun Electric  
Canadian Radio-Television & Telecomm. Commission  
Canadian Utilities  
Canadian Western Natural Gas  
Cascade Natural Gas  
Centel  
Centra Gas  
Central Illinois Light & Power Co  
Central Telephone  
Central & South West Corp.

Chattanooga Gas Company  
Cincinnati Gas & Electric  
Cinergy Corp.  
Citizens Utilities  
City Gas of Florida  
CN-CP Telecommunications  
Commonwealth Telephone Co.  
Columbia Gas System  
Consolidated Natural Gas  
Constellation Energy  
Delmarva Power & Light Co  
Deerpath Group  
DTE Energy  
Edison International  
Edmonton Power Company  
Elizabethtown Gas Co.  
Emera  
Energen  
Engraph Corporation  
Entergy Corp.  
Entergy Arkansas Inc.  
Entergy Gulf States, Inc.  
Entergy Louisiana, Inc.  
Entergy Mississippi Power  
Entergy New Orleans, Inc.  
First Energy  
Florida Water Association  
Fortis  
Garmaise-Thomson & Assoc., Investment Consultants  
Gaz Metropolitan  
General Public Utilities

Georgia Broadcasting Corp.  
Georgia Power Company  
GTE California - Verizon  
GTE Northwest Inc. - Verizon  
GTE Service Corp. - Verizon  
GTE Southwest Incorporated - Verizon  
Gulf Power Company  
Havasu Water Inc.  
Hawaiian Electric Company  
Hawaii Electric Light Company  
Heater Utilities – Aqua - America  
Hope Gas Inc.  
Hydro-Quebec  
ICG Utilities  
Illinois Commerce Commission  
Island Telephone  
Jersey Central Power & Light  
Kansas Power & Light  
KeySpan Energy  
Manitoba Hydro  
Maritime Telephone  
Maui Electric Company  
Metropolitan Edison Co.  
Minister of Natural Resources Province of Quebec  
Minnesota Power & Light  
Mississippi Power Company  
Missouri Gas Energy  
Mountain Bell  
National Grid  
Nevada Power Company  
New Brunswick Power

Newfoundland Power Inc. - Fortis Inc.  
New Market Hydro  
New Tel Enterprises Ltd.  
New York Telephone Co.  
Niagara Mohawk Power Corp  
Norfolk-Southern  
Northeast Utilities  
Northern Telephone Ltd.  
Northwestern Bell  
Northwestern Utilities Ltd.  
Nova Scotia Power  
Nova Scotia Utility and Review Board  
NUI Corp.  
NYNEX  
Oklahoma G & E  
Ontario Telephone Service Commission  
Orange & Rockland  
PNM Resources  
Pacific Northwest Bell  
People's Gas System Inc.  
People's Natural Gas  
Pennsylvania Electric Co.  
Pepco Holdings  
Potomac Electric Power Co.  
Price Waterhouse  
PSI Energy  
Public Service Electric & Gas  
Public Service of New Hampshire  
Public Service of New Mexico  
Puget Sound Electric Co.  
Quebec Telephone

Regie de l'Energie du Quebec  
Rochester Telephone  
San Diego Gas & Electric  
SaskPower  
Sierra Pacific Power Company  
Southern Bell  
Southern States Utilities  
Southern Union Gas  
South Central Bell  
Sun City Water Company  
TECO Energy  
The Southern Company  
Touche Ross and Company  
TransEnergie  
Trans-Quebec & Maritimes Pipeline  
TXU Corp  
US WEST Communications  
Union Heat Light & Power  
Utah Power & Light  
Vermont Gas Systems Inc.

**MANAGEMENT DEVELOPMENT AND PROFESSIONAL EXECUTIVE EDUCATION**

- Canadian Institute of Marketing, Corporate Finance, 1971-73
- Hydro-Quebec, "Capital Budgeting Under Uncertainty," 1974-75
- Institute of Certified Public Accountants, Mergers & Acquisitions, 1975-78
- Investment Dealers Association of Canada, 1977-78
- Financial Research Foundation, bi-annual seminar, 1975-79
- Advanced Management Research (AMR), faculty member, 1977-80
- Financial Analysts Federation, Educational chapter: "Financial Futures Contracts" seminar

- Exnet Inc. a.k.a. The Management Exchange Inc., faculty member 1981-2008.  
National Seminars:

*Risk and Return on Capital Projects*  
*Cost of Capital for Regulated Utilities*  
*Capital Allocation for Utilities*  
*Alternative Regulatory Frameworks*  
*Utility Directors' Workshop*  
*Shareholder Value Creation for Utilities*  
*Fundamentals of Utility Finance in a Restructured Environment*  
*Contemporary Issues in Utility Finance*

- Georgia State University College of Business, Management  
Development Program, faculty member, 1981-1994.

### **EXPERT TESTIMONY & UTILITY CONSULTING AREAS OF EXPERTISE**

Corporate Finance  
Rate of Return  
Capital Structure  
Generic Cost of Capital  
Costing Methodology  
Depreciation  
Flow-Through vs Normalization  
Revenue Requirements Methodology  
Utility Capital Expenditures Analysis  
Risk Analysis  
Capital Allocation  
Divisional Cost of Capital, Unbundling  
Incentive Regulation & Alternative Regulatory Plans  
Shareholder Value Creation  
Value-Based Management

### **REGULATORY BODIES**

Alabama Public Service Commission  
Alaska Public Utility Commission  
Alberta Public Service Board  
Arizona Corporation Commission

Arkansas Public Service Commission  
British Columbia Board of Public Utilities  
California Public Service Commission  
Canadian Radio-Television & Telecommunications Comm.  
Colorado Public Utilities Board  
Delaware Public Utility Commission  
District of Columbia Public Service Commission  
Federal Communications Commission  
Federal Energy Regulatory Commission  
Florida Public Service Commission  
Georgia Public Service Commission  
Georgia Senate Committee on Regulated Industries  
Hawaii Public Utilities Commission  
Illinois Commerce Commission  
Indiana Utility Regulatory Commission  
Iowa Board of Public Utilities  
Louisiana Public Service Commission  
Maine Public Service Commission  
Manitoba Board of Public Utilities  
Michigan Public Service Commission  
Minnesota Public Utilities Commission  
Mississippi Public Service Commission  
Missouri Public Service Commission  
Montana Public Service Commission  
National Energy Board of Canada  
Nevada Public Service Commission  
New Brunswick Board of Public Commissioners  
New Hampshire Public Utility Commission  
New Jersey Board of Public Utilities  
New Mexico Public Regulatory Commission  
New York Public Service Commission

Newfoundland Board of Commissioners of Public Utilities  
North Carolina Utilities Commission  
Ohio Public Utilities Commission  
Oklahoma State Board of Equalization  
Ontario Telephone Service Commission  
Ontario Energy Board  
Pennsylvania Public Service Commission  
Quebec Natural Gas Board  
Quebec Regie de l'Energie  
Quebec Telephone Service Commission  
South Carolina Public Service Commission  
Tennessee Regulatory Authority  
Texas Public Utility Commission  
Utah Public Service Commission  
Virginia Public Service Commission  
Washington Utilities & Transportation Commission  
West Virginia Public Service Commission

**SERVICE AS EXPERT WITNESS**

Southern Bell, So. Carolina PSC, Docket #81-201C  
Southern Bell, So. Carolina PSC, Docket #82-294C  
Southern Bell, North Carolina PSC, Docket #P-55-816  
Metropolitan Edison, Pennsylvania PUC, Docket #R-822249  
Pennsylvania Electric, Pennsylvania PUC, Docket #R-822250  
Georgia Power, Georgia PSC, Docket # 3270-U, 1981  
Georgia Power, Georgia PSC, Docket # 3397-U, 1983  
Georgia Power, Georgia PSC, Docket # 3673-U, 1987  
Georgia Power, F.E.R.C., Docket # ER 80-326, 80-327  
Georgia Power, F.E.R.C., Docket # ER 81-730, 80-731  
Georgia Power, F.E.R.C., Docket # ER 85-730, 85-731

Bell Canada, CRTC 1987  
Northern Telephone, Ontario PSC  
GTE-Quebec Telephone, Quebec PSC, Docket 84-052B  
Newtel., Nfld. Brd of Public Commission PU 11-87  
CN-CP Telecommunications, CRTC  
Quebec Northern Telephone, Quebec PSC  
Edmonton Power Company, Alberta Public Service Board  
Kansas Power & Light, F.E.R.C., Docket # ER 83-418  
NYNEX, FCC generic cost of capital Docket #84-800  
Bell South, FCC generic cost of capital Docket #84-800  
American Water Works - Tennessee, Docket #7226  
Burlington-Northern - Oklahoma State Board of Taxes  
Georgia Power, Georgia PSC, Docket # 3549-U  
GTE Service Corp., FCC Docket #84-200  
Mississippi Power Co., Miss. PSC, Docket U-4761  
Citizens Utilities, Ariz. Corp. Comm., D # U2334-86020  
Quebec Telephone, Quebec PSC, 1986, 1987, 1992  
Newfoundland L & P, Nfld. Brd. Publ Comm. 1987, 1991  
Northwestern Bell, Minnesota PSC, #P-421/CI-86-354  
GTE Service Corp., FCC Docket #87-463  
Anchorage Municipal Power & Light, Alaska PUC, 1988  
New Brunswick Telephone, N.B. PUC, 1988  
Trans-Quebec Maritime, Nat'l Energy Brd. of Cda, '88-92  
Gulf Power Co., Florida PSC, Docket #88-1167-EI  
Mountain States Bell, Montana PSC, #88-1.2  
Mountain States Bell, Arizona CC, #E-1051-88-146  
Georgia Power, Georgia PSC, Docket # 3840-U, 1989  
Rochester Telephone, New York PSC, Docket # 89-C-022  
Noverco - Gaz Metro, Quebec Natural Gas PSC, #R-3164-89  
GTE Northwest, Washington UTC, #U-89-3031  
Orange & Rockland, New York PSC, Case 89-E-175

Central Illinois Light Company, ICC, Case 90-0127  
Peoples Natural Gas, Pennsylvania PSC, Case  
Gulf Power, Florida PSC, Case # 891345-EI  
ICG Utilities, Manitoba BPU, Case 1989  
New Tel Enterprises, CRTC, Docket #90-15  
Peoples Gas Systems, Florida PSC  
Jersey Central Pwr & Light, N.J. PUB, Case ER 89110912J  
Alabama Gas Co., Alabama PSC, Case 890001  
Trans-Quebec Maritime Pipeline, Cdn. Nat'l Energy Board  
Mountain Bell, Utah PSC,  
Mountain Bell, Colorado PUB  
South Central Bell, Louisiana PS  
Hope Gas, West Virginia PSC  
Vermont Gas Systems, Vermont PSC  
Alberta Power Ltd., Alberta PUB  
Ohio Utilities Company, Ohio PSC  
Georgia Power Company, Georgia PSC  
Sun City Water Company  
Havasu Water Inc.  
Centra Gas (Manitoba) Co.  
Central Telephone Co. Nevada  
AGT Ltd., CRTC 1992  
BC GAS, BCPUB 1992  
California Water Association, California PUC 1992  
Maritime Telephone 1993  
BCE Enterprises, Bell Canada, 1993  
Citizens Utilities Arizona gas division 1993  
PSI Resources 1993-5  
CILCORP gas division 1994  
GTE Northwest Oregon 1993  
Stentor Group 1994-5

Bell Canada 1994-1995  
PSI Energy 1993, 1994, 1995, 1999  
Cincinnati Gas & Electric 1994, 1996, 1999, 2004  
Southern States Utilities, 1995  
CILCO 1995, 1999, 2001  
Commonwealth Telephone 1996  
Edison International 1996, 1998  
Citizens Utilities 1997  
Stentor Companies 1997  
Hydro-Quebec 1998  
Entergy Gulf States Louisiana 1998, 1999, 2001, 2002, 2003  
Detroit Edison, 1999, 2003  
Entergy Gulf States, Texas, 2000, 2004  
Hydro Quebec TransEnergie, 2001, 2004  
Sierra Pacific Company, 2000, 2001, 2002, 2007  
Nevada Power Company, 2001  
Mid American Energy, 2001, 2002  
Entergy Louisiana Inc. 2001, 2002, 2004  
Mississippi Power Company, 2001, 2002, 2007  
Oklahoma Gas & Electric Company, 2002 -2003  
Public Service Electric & Gas, 2001, 2002  
NUI Corp (Elizabethtown Gas Company), 2002  
Jersey Central Power & Light, 2002  
San Diego Gas & Electric, 2002  
New Brunswick Power, 2002  
Entergy New Orleans, 2002  
Hydro-Quebec Distribution 2002  
PSI Energy 2003  
Fortis – Newfoundland Power & Light 2002  
Emera – Nova Scotia Power 2004  
Hydro-Quebec TransEnergie 2004

Hawaiian Electric 2004  
Missouri Gas Energy 2004  
AGL Resources 2004  
Arkansas Western Gas 2004  
Public Service of New Hampshire 2005  
Hawaiian Electric Company 2005  
Delmarva Power & Light Company 2005  
Union Heat Power & Light 2005  
Puget Sound Electric Co 2006  
Cascade Natural Gas 2006  
Entergy Arkansas 2006-7  
Bangor Hydro 2006-7  
Delmarva 2006-7  
Potomac Electric Power Co. 2006, 2007  
Detroit Edison Co. 2007  
Nevada Power Co. 2007  
Hawaiian Electric Co. 2006-7  
Hawaii Electric Light Co. 2007  
Maui Electric Co. 2007  
Ameren Union Electric 2008  
Consolidated Edison of New York 2007-2008  
Orange & Rockland 2007  
Niagara Mohawk Power Corp 2008  
Allele (Minnesota Power) 2007-2008  
Sierra Pacific Power 2007-2008

**PROFESSIONAL AND LEARNED SOCIETIES**

- Engineering Institute of Canada, 1967-1972
- Canada Council Award, recipient 1971 and 1972
- Canadian Association Administrative Sciences, 1973-80

- American Association of Decision Sciences, 1974-1978
- American Finance Association, 1975-2002
- Financial Management Association, 1978-2002

### **ACTIVITIES IN PROFESSIONAL ASSOCIATIONS AND MEETINGS**

- Chairman of meeting on "New Developments in Utility Cost of Capital", Southern Finance Association, Atlanta, Nov. 1982
- Chairman of meeting on "Public Utility Rate of Return", Southeastern Public Utility Conference, Atlanta, Oct. 1982
- Chairman of meeting on "Current Issues in Regulatory Finance", Financial Management Association, Atlanta, Oct. 1983
- Chairman of meeting on "Utility Cost of Capital", Financial Management Association, Toronto, Canada, Oct. 1984.
- Committee on New Product Development, FMA, 1985
- Discussant, "Tobin's Q Ratio", paper presented at Financial Management Association, New York, N.Y., Oct. 1986
- Guest speaker, "Utility Capital Structure: New Developments", National Society of Rate of Return Analysts 18th Financial Forum, Wash., D.C. Oct. 1986
- Opening address, "Capital Expenditures Analysis: Methodology vs Mythology," Bellcore Economic Analysis Conference, Naples Fla., 1988.
- Guest speaker, "Mythodology in Regulatory Finance", Society of Utility Rate of Return Analysts (SURFA), Annual Conference, Wash., D.C. February 2007.

### **PAPERS PRESENTED:**

"An Empirical Study of Multi-Period Asset Pricing," annual meeting of Financial Management Assoc., Las Vegas Nevada, 1987.

"Utility Capital Expenditures Analysis: Net Present Value vs Revenue Requirements", annual meeting of Financial Management Assoc., Denver, Colorado, October 1985.

"Intervention Analysis and the Dynamics of Market Efficiency", annual meeting of Financial Management Assoc., San Francisco, Oct. 1982

"Intertemporal Market-Line Theory: An Empirical Study," annual meeting of Eastern Finance Assoc., Newport, R.I. 1981

"Option Writing for Financial Institutions: A Cost-Benefit Analysis", 1979 annual meeting Financial Research Foundation

"Free-lunch on the Toronto Stock Exchange", annual meeting of Financial Research Foundation of Canada, 1978.

"Simulation System Computer Software SIMFIN", HP International Business Computer Users Group, London, 1975.

"Inflation Accounting: Implications for Financial Analysis." Institute of Certified Public Accountants Symposium, 1979.

### **OFFICES IN PROFESSIONAL ASSOCIATIONS**

- President, International Hewlett-Packard Business Computers Users Group, 1977
  
- Chairman Program Committee, International HP Business Computers Users Group, London, England, 1975
  
- Program Coordinator, Canadian Assoc. of Administrative Sciences, 1976
  
- Member, New Product Development Committee, Financial Management Association, 1985-1986
  
- Reviewer: Journal of Financial Research
  - Financial Management
  - Financial Review
  - Journal of Finance

### **PUBLICATIONS**

"Risk Aversion Revisited", Journal of Finance, Sept. 1983

"Hedging Regulatory Lag with Financial Futures," Journal of Finance, May 1983. (with G. Gay, R. Kolb)

"The Effect of CWIP on Cost of Capital," Public Utilities Fortnightly, July 1986.

"The Effect of CWIP on Revenue Requirements" Public Utilities Fortnightly, August 1986.

"Intervention Analysis and the Dynamics of Market Efficiency," Time-Series Applications, New York: North Holland, 1983. (with K. El-Sheshai)

"Market-Line Theory and the Canadian Equity Market," Journal of Business Administration, Jan. 1982, M. Brennan, editor

"Efficiency of Canadian Equity Markets," International Management Review, Feb. 1978.

"Intertemporal Market-Line Theory: An Empirical Test," Financial Review, Proceedings of the Eastern Finance Association, 1981.

## **BOOKS**

Utilities' Cost of Capital, Public Utilities Reports Inc., Arlington, Va., 1984.

Regulatory Finance, Public Utilities Reports Inc., Arlington, Va., 2004

Driving Shareholder Value, McGraw-Hill, January 2001.

The New Regulatory Finance, Public Utilities Reports Inc., Arlington, Va., 2006.

## **MONOGRAPHS**

Determining Cost of Capital for Regulated Industries, Public Utilities Reports, Inc., and The Management Exchange Inc., 1982 - 1993. (with V.L. Andrews)

Alternative Regulatory Frameworks, Public Utilities Reports, Inc., and The Management Exchange Inc., 1993. (with V.L. Andrews)

Risk and Return in Capital Projects, The Management Exchange Inc., 1980. (with B. Deschamps)

Utility Capital Expenditure Analysis, The Management Exchange Inc., 1983.

Regulation of Cable Television: An Econometric Planning Model, Quebec Department of Communications, 1978.

"An Economic & Financial Profile of the Canadian Cablevision Industry," Canadian Radio-Television & Telecommunication Commission (CRTC), 1978.

Computer Users' Manual: Finance and Investment Programs, University of Montreal Press, 1974, revised 1978.

Fiber Optics Communications: Economic Characteristics, Quebec Department of Communications, 1978.

"Canadian Equity Market Inefficiencies", Capital Market Research Memorandum, Garmaise & Thomson Investment Consultants, 1979.

### **MISCELLANEOUS CONSULTING REPORTS**

"Operational Risk Analysis: California Water Utilities," Calif. Water Association, 1993.

"Cost of Capital Methodologies for Independent Telephone Systems", Ontario Telephone Service Commission, March 1989.

"The Effect of CWIP on Cost of Capital and Revenue Requirements", Georgia Power Company, 1985.

"Costing Methodology and the Effect of Alternate Depreciation and Costing Methods on Revenue Requirements and Utility Finances", Gaz Metropolitan Inc., 1985.

"Simulated Capital Structure of CN-CP Telecommunications: A Critique", CRTC, 1977.

"Telecommunications Cost Inquiry: Critique," CRTC, 1977.

"Social Rate of Discount in the Public Sector", CRTC Policy Statement, 1974.

"Technical Problems in Capital Projects Analysis", CRTC Policy Statement, 1974.

### **RESEARCH GRANTS**

"Econometric Planning Model of the Cablevision Industry", International Institute of Quantitative Economics, CRTC.

"Application of the Averch-Johnson Model to Telecommunications Utilities", Canadian Radio-Television Commission. (CRTC)

"Economics of the Fiber Optics Industry", Quebec Dept. of Communications.

"Intervention Analysis and the Dynamics of Market Efficiency", Georgia State Univ. College of Business, 1981.

"Firm Size and Beta Stability", Georgia State University College of Business, 1982.

"Risk Aversion and the Demand for Risky Assets", Georgia State University College of Business, 1981.

Chase Econometrics, Interactive Data Corp., Research Grant, \$50,000 per annum, 1986-1989.

**S&P ELECTRIC DISTRIBUTION UTILITIES  
BETA ESTIMATES**

Company Name	Beta
1 Amer. Elec. Power	0.85
2 Ameren Corp.	0.80
3 CH Energy Group	0.90
4 Consol. Edison	0.75
5 Energy East Corp.	0.75
6 Exelon Corp.	0.85
7 FirstEnergy Corp.	0.80
8 Northeast Utilities	0.75
9 NSTAR	0.75
10 Pepco Holdings	0.90
11 PPL Corp.	0.90
12 Public Serv. Enterprise	0.90
 <b>AVERAGE</b>	 <b>0.83</b>

Source: VLIA 07/2008

## MOODY'S ELECTRIC UTILITIES BETA ESTIMATES

Company Name	Beta
1 Amer. Elec. Power	0.85
2 CH Energy Group	0.90
3 Consol. Edison	0.75
4 Constellation Energy	0.90
5 DPL Inc.	0.75
6 DTE Energy	0.75
7 Dominion Resources	0.75
8 Duke Energy	
9 Energy East Corp.	0.75
10 Exelon Corp.	0.85
11 FirstEnergy Corp.	0.80
12 IDACORP Inc.	0.90
13 NiSource Inc.	0.90
14 OGE Energy	0.80
15 PPL Corp.	0.90
16 Progress Energy	0.80
17 Public Serv. Enterprise	0.90
18 Southern Co.	0.70
19 TECO Energy	0.85
20 Xcel Energy Inc.	0.75
<b>AVERAGE</b>	<b>0.82</b>

Source: VLIA 07/2008

**MOODY'S ELECTRIC UTILITIES  
BETA ESTIMATES**

Company Name	Beta
1 Amer. Elec. Power	0.85
2 CH Energy Group	0.90
3 Consol. Edison	0.75
4 DPL Inc.	0.75
5 DTE Energy	0.75
6 Duke Energy	
7 Energy East Corp.	0.75
8 Exelon Corp.	0.85
9 FirstEnergy Corp.	0.80
10 IDACORP Inc.	0.90
11 PPL Corp.	0.90
12 Progress Energy	0.80
13 Public Serv. Enterprise	0.90
14 Southern Co.	0.70
15 TECO Energy	0.85
16 Xcel Energy Inc.	0.75
	0.81

Updated Exhibit RAM-3 Electric Industry Historical Risk Premium

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
	Long-Term Government Bond Yield	20 year Maturity Bond Value	Gain/Loss	Interest	Bond Total Return	Moody's Electric Utility Stock Index	Dividend	Capital Gain/(Loss) % Growth	Yield	Stock Total Return	Equity Risk Premium Over Bond Returns	Equity Risk Premium Over Bond Yields	
Line No.	Year												
1	1931	4.07%	1,000.00				43.23						
2	1932	3.15%	1,135.75	135.75	40.70	17.64%	39.42	2.22	-8.81%	5.14%	-3.68%	-21.32%	-6.83%
3	1933	3.36%	969.60	-30.40	31.50	0.11%	28.73	1.75	-27.12%	4.44%	-22.68%	-22.79%	-26.04%
4	1934	2.93%	1,064.73	64.73	33.60	9.83%	21.06	1.42	-26.70%	4.94%	-21.75%	-31.59%	-24.68%
5	1935	2.76%	1,025.99	25.99	29.30	5.53%	36.06	1.33	71.23%	6.32%	77.54%	72.01%	74.78%
6	1936	2.55%	1,032.74	32.74	27.60	6.03%	41.60	1.78	15.36%	4.94%	20.30%	14.27%	17.75%
7	1937	2.73%	972.40	-27.60	25.50	-0.21%	24.24	1.68	-41.73%	4.04%	-37.69%	-37.48%	-40.42%
8	1938	2.52%	1,032.83	32.83	27.30	6.01%	27.55	1.45	13.66%	5.98%	19.64%	13.62%	17.12%
9	1939	2.26%	1,041.65	41.65	25.20	6.68%	28.85	1.51	4.72%	5.48%	10.20%	3.51%	7.94%
10	1940	1.94%	1,052.84	52.84	22.60	7.54%	22.22	1.57	-22.98%	5.44%	-17.54%	-25.08%	-19.48%
11	1941	2.04%	983.64	-16.36	19.40	0.30%	13.45	1.27	-39.47%	5.72%	-33.75%	-34.06%	-35.79%
12	1942	2.46%	933.97	-66.03	20.40	-4.56%	14.29	1.28	6.25%	9.52%	15.76%	20.33%	13.30%
13	1943	2.48%	996.86	-3.14	24.60	2.15%	21.01	1.46	47.03%	10.22%	57.24%	55.10%	54.76%
14	1944	2.46%	1,003.14	3.14	24.80	2.79%	21.09	1.35	0.38%	6.43%	6.81%	4.01%	4.35%
15	1945	1.99%	1,077.23	77.23	24.60	10.18%	31.14	1.37	47.65%	6.50%	54.15%	43.97%	52.16%
16	1946	2.12%	978.90	-21.10	19.90	-0.12%	32.71	1.48	5.04%	4.75%	9.79%	9.91%	7.67%
17	1947	2.43%	951.13	-48.87	21.20	-2.77%	25.60	1.58	-21.74%	4.83%	-16.91%	-14.14%	-19.34%
18	1948	2.37%	1,009.51	9.51	24.30	3.38%	26.20	1.63	2.34%	6.37%	8.71%	5.33%	6.34%
19	1949	2.09%	1,045.58	45.58	23.70	6.93%	30.57	1.68	16.68%	6.41%	23.09%	16.16%	21.00%
20	1950	2.24%	975.93	-24.07	20.90	-0.32%	30.81	1.85	0.79%	6.05%	6.84%	7.15%	4.60%
21	1951	2.69%	930.75	-69.25	22.40	-4.69%	33.85	1.90	9.87%	6.17%	16.03%	20.72%	13.34%
22	1952	2.79%	984.75	-15.25	26.90	1.17%	37.85	1.92	11.82%	5.67%	17.49%	16.32%	14.70%
23	1953	2.74%	1,007.66	7.66	27.90	3.56%	39.61	2.09	4.65%	5.52%	10.17%	6.62%	7.43%
24	1954	2.72%	1,003.07	3.07	27.40	3.05%	47.56	2.14	20.07%	5.40%	25.47%	22.43%	22.75%
25	1955	2.95%	965.44	-34.56	27.20	-0.74%	49.35	2.27	3.76%	4.77%	8.54%	9.27%	5.59%
26	1956	3.45%	928.19	-71.81	29.50	-4.23%	48.96	2.37	-0.79%	4.80%	4.01%	8.24%	0.56%
27	1957	3.23%	1,032.23	32.23	34.50	6.67%	50.30	2.46	2.74%	5.02%	7.76%	1.09%	4.53%
28	1958	3.82%	918.01	-81.99	32.30	-4.97%	66.37	2.57	31.95%	5.11%	37.06%	42.03%	33.24%
29	1959	4.47%	914.65	-85.35	38.20	-4.71%	65.77	2.64	-0.90%	3.98%	3.07%	7.79%	-1.40%
30	1960	3.80%	1,093.27	93.27	44.70	13.80%	76.82	2.74	16.80%	4.17%	20.97%	7.17%	17.17%
31	1961	4.15%	952.75	-47.25	38.00	-0.92%	99.32	2.86	29.29%	3.72%	33.01%	33.94%	28.86%
32	1962	3.95%	1,027.48	27.48	41.50	6.90%	96.49	3.07	-2.85%	3.09%	0.24%	-6.66%	-3.71%
33	1963	4.17%	970.35	-29.65	39.50	0.99%	102.31	3.33	6.03%	3.45%	9.48%	8.50%	5.31%
34	1964	4.23%	991.96	-8.04	41.70	3.37%	115.54	3.68	12.93%	3.60%	16.53%	13.16%	12.30%
35	1965	4.50%	964.64	-35.36	42.30	0.69%	114.86	4.02	-0.59%	3.48%	2.89%	2.20%	-1.61%
36	1966	4.55%	993.48	-6.52	45.00	3.85%	105.99	4.18	-7.72%	3.64%	-4.08%	-7.93%	-8.63%
37	1967	5.56%	879.01	-120.99	45.50	-7.55%	98.19	4.44	-7.36%	4.19%	-3.17%	4.38%	-8.73%
38	1968	5.98%	951.38	-48.62	55.60	0.70%	104.04	4.58	5.96%	4.66%	10.62%	9.92%	4.64%
39	1969	6.87%	904.00	-96.00	59.80	-3.62%	84.62	4.63	-18.67%	4.45%	-14.22%	-10.60%	-21.09%
40	1970	6.48%	1,043.38	43.38	68.70	11.21%	88.59	4.73	4.69%	5.59%	10.28%	-0.93%	3.80%
41	1971	5.97%	1,059.09	59.09	64.80	12.39%	85.56	4.81	-3.42%	5.43%	2.01%	-10.38%	-3.96%
42	1972	5.99%	997.69	-2.31	59.70	5.74%	83.61	4.92	-2.28%	5.75%	3.47%	-2.27%	-2.52%
43	1973	7.26%	867.09	-132.91	59.90	-7.30%	60.87	5.04	-27.20%	6.03%	-21.17%	-13.87%	-28.43%

Updated Exhibit RAM-3 Electric Industry Historical Risk Premium

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
	Long-Term Government Bond Yield	20 year Maturity Bond Value	Gain/Loss	Interest	Bond Total Return	Moody's Electric Utility Stock Index	Dividend	Capital Gain/(Loss) % Growth	Yield	Stock Total Return	Equity Risk Premium Over Bond Returns	Equity Risk Premium Over Bond Yields	
Line No.	Year	Yield	Value	Gain/Loss	Interest	Return	Index	% Growth	Yield	Return	Over Bond Returns	Over Bond Yields	
44	1974	7.60%	965.33	-34.67	72.60	3.79%	41.17	4.83	-32.36%	7.93%	-24.43%	-28.22%	-32.03%
45	1975	8.05%	955.63	-44.37	76.00	3.16%	55.66	4.99	35.20%	12.12%	47.32%	44.15%	39.27%
46	1976	7.21%	1,088.25	88.25	80.50	16.87%	66.29	5.25	19.10%	9.43%	28.53%	11.66%	21.32%
47	1977	8.03%	919.03	-80.97	72.10	-0.89%	68.19	5.68	2.87%	8.57%	11.43%	12.32%	3.40%
48	1978	8.98%	912.47	-87.53	80.30	-0.72%	59.75	5.98	-12.38%	8.77%	-3.61%	-2.88%	-12.59%
49	1979	10.12%	902.99	-97.01	89.80	-0.72%	56.41	6.34	-5.59%	10.61%	5.02%	5.74%	-5.10%
50	1980	11.99%	859.23	-140.77	101.20	-3.96%	54.42	6.67	-3.53%	11.82%	8.30%	12.25%	-3.69%
51	1981	13.34%	906.45	-93.55	119.90	2.63%	57.20	7.16	5.11%	13.16%	18.27%	15.63%	4.93%
52	1982	10.95%	1,192.38	192.38	133.40	32.58%	70.26	7.64	22.83%	13.36%	36.19%	3.61%	25.24%
53	1983	11.97%	923.12	-76.88	109.50	3.26%	72.03	8.00	2.52%	11.39%	13.91%	10.64%	1.94%
54	1984	11.70%	1,020.70	20.70	119.70	14.04%	80.16	8.37	11.29%	11.62%	22.91%	8.87%	11.21%
55	1985	9.56%	1,189.27	189.27	117.00	30.63%	94.98	8.71	18.49%	10.87%	29.35%	-1.27%	19.79%
56	1986	7.89%	1,166.63	166.63	95.60	26.22%	113.66	8.97	19.67%	9.44%	29.11%	2.89%	21.22%
57	1987	9.20%	881.17	-118.83	78.90	-3.99%	94.24	9.12	-17.09%	8.02%	-9.06%	-5.07%	-18.26%
58	1988	9.18%	1,001.82	1.82	92.00	9.38%	100.94	8.71	7.11%	9.24%	16.35%	6.97%	7.17%
59	1989	8.16%	1,099.75	99.75	91.80	19.16%	122.52	8.85	21.38%	8.77%	30.15%	10.99%	21.99%
60	1990	8.44%	973.17	-26.83	81.60	5.48%	117.77	8.76	-3.88%	7.15%	3.27%	-2.20%	-5.17%
61	1991	7.30%	1,118.94	118.94	84.40	20.33%	144.02	9.02	22.29%	7.66%	29.95%	9.61%	22.65%
62	1992	7.26%	1,004.19	4.19	73.00	7.72%	141.06	8.82	-2.06%	6.12%	4.07%	-3.65%	-3.19%
63	1993	6.54%	1,079.70	79.70	72.60	15.23%	146.70	9.04	4.00%	6.41%	10.41%	-4.82%	3.87%
64	1994	7.99%	856.40	-143.60	65.40	-7.82%	115.50	9.01	-21.27%	6.14%	-15.13%	-7.31%	-23.12%
65	1995	6.03%	1,225.98	225.98	79.90	30.59%	142.90	9.06	23.72%	7.84%	31.57%	0.98%	25.54%
66	1996	6.73%	923.67	-76.33	60.30	-1.60%	136.00	9.06	-4.83%	6.34%	1.51%	3.11%	-5.22%
67	1997	6.02%	1,081.92	81.92	67.30	14.92%	155.73	9.06	14.51%	6.66%	21.17%	6.25%	15.15%
68	1998	5.42%	1,072.71	72.71	60.20	13.29%	181.84	8.01	16.77%	5.14%	21.91%	8.62%	16.49%
69	1999	6.82%	848.41	-151.59	54.20	-9.74%	137.30	8.06	-24.49%	4.43%	-20.06%	-10.32%	-26.88%
70	2000	5.58%	1,148.30	148.30	68.20	21.65%	227.09	8.71	65.40%	6.34%	71.74%	50.09%	66.16%
71	2001	5.75%	979.95	-20.05	55.80	3.57%	200.50	8.95	-11.71%	3.94%	-7.77%	-11.34%	-13.52%
72	2002	4.84%	1,115.77	115.77	57.50	17.33%	169.50	8.83	-15.46%	4.40%	-11.06%	-28.38%	-15.90%
73	2003	5.11%	966.42	-33.58	48.40	1.48%	201.21	8.52	18.71%	5.03%	23.73%	22.25%	18.62%
74	2004	4.84%	1,034.35	34.35	51.10	8.54%	249.70	9.98	24.10%	4.96%	29.06%	20.51%	24.22%
75	2005	4.61%	1,029.84	29.84	48.40	7.82%	285.86	10.72	14.48%	4.29%	18.77%	10.95%	14.16%
76	2006	4.91%	962.06	-37.94	46.10	0.82%	326.19	11.31	14.11%	3.96%	18.06%	17.25%	13.15%
78	<b>Mean</b>											<b>5.7%</b>	<b>5.8%</b>

Source: Mergent Public Utility Manual December stock prices and dividends  
Dec. Bond yields from Ibbotson Associates 2007 Valuation Yearbook Table B-9 Long-Term Government Bonds Yields

Distribution Utility Companies		Parent	Distribution Utility Companies		Parent
1	Atlanta Gas Light Co	AGL Resources Inc	44	Narragansett Electric Co.	National Grid
2	Central Illinois Public Service Co.	Ameren	45	National Grid USA	National Grid USA
3	AEP Texas North Co	American Electric Power	46	Massachusetts Electric Co.	New England Electric Systems
4	AEP Texas Central Co.	American Electric Power	47	New Jersey Natural Gas Co	New Jersey Resources
5	Ohio Power Co	American Electric Power	48	Nicor Gas Co.	Nicor Inc
6	Columbus Southern Power Co.	American Electric Power	49	Nicor Inc	Nicor Inc
7	American States Water Co.	American Satates Water Company	50	Bay State Gas Co.	NiSource
8	Southern California Water Co.	American Satates Water Company	51	Yankee Gas Services Co.	Northeast Utilities
9	American Water Capital Corp	American Water Works Company Inc	52	Western Massachusetts Electric Co	Northeast Utilities System
10	Aqua Pennsylvania	Aqua America Inc	53	Connecticut Light & Power Co.	Northeast Utilities System
11	Aquarion Water Co. of Connecticut	Aquarion	54	Northwest Natural Gas Co.	Northwest Natural Gas Co.
12	California Water Service Co	California Water Service Group	55	NSTAR	NSTAR
13	Cascade Natural Gas Corp	Cascade Natural Gas Corp	56	Boston Edison Co.	NSTAR
14	CenterPoint Energy Houston Electric LLC	CenterPoint Energy	57	Commonwealth Electric Co	NSTAR
15	CenterPoint Energy Resources Corp.LLC	CenterPoint Energy	58	NSTAR Gas Co.	NSTAR
16	Central Hudson Gas & Electric Co.	CH Energy Group	59	Cambridge Electric Light Co.	NSTAR
17	Atlantic City Sewerage Co.	City of Atlantic City	60	ONEOK Inc.	ONEOK Inc.
18	Connecticut Water Co.	Connecticut Water Service Inc.	61	Rockland Electric Co	Orange and Rockland Utilities Inc.
19	Connecticut Water Service Inc.	Connecticut Water Service Inc.	62	Peoples Gas Light & Coke Co.	Peoples Energy
20	Consolidated Edison Inc.	Consolidated Edison	63	North Shore Gas Co.	Peoples Energy
21	Orange and Rockland Utilities Inc.	Consolidated Edison	64	Delmarva Power & Light Co	PEPCO Holdings
22	Consolidated Edison Co. of New York In	Consolidated Edison	65	Atlantic City Electric Co.	PEPCO Holdings
23	Baltimore Gas & Electric Co	Constellation Energy	66	Potomac Electric Power Co.	PEPCO Holdings
24	Duquesne Light Holdings Inc.	Duquesne Light Holdings Inc.	67	Piedmont Natural Gas Co. Inc.	Piedmont Natural Gas
25	Duquesne Light Co	Duquesne Light Holdings Inc.	68	PPL Electric Utilities Corp.	PPL Corp
26	Alabama Gas Corp.	Energen	69	Baton Rouge Water Works Co. (The)	Private
27	Central Maine Power Co.	Energy East Corporation	70	Public Service Electric & Gas Co	Public Service Enterprise Group
28	Connecticut Natural Gas Corp.	Energy East Corporation	71	Questar Gas Co	Questar
29	Southern Connecticut Gas Co.	Energy East Corporation	72	Public Service Co. of North Carolina Inc.	SCANA Corp.
30	Commonwealth Edison Co.	Exelon	73	Southern California Gas Co	Sempra Energy
31	PECO Energy Co.	Exelon	74	South Jersey Gas Co	South Jersey Industries
32	Jersey Central Power & Light Co.	FirstEnergy	75	Southern Union Co	Southern Union
33	Metropolitan Edison Co.	FirstEnergy	76	Southwest Gas Corp.	Southwest Gas
34	Pennsylvania Electric Co.	FirstEnergy	77	Elizabethtown Water Co	Thames Water Co
35	Aquarion Co.	Kelda Group Plc	78	TXU Gas Co.	TXU
36	KeySpan Energy Delivery Long Island	KeySpan	79	Oncor Electric Delivery Co.	TXU
37	KeySpan Energy Delivery New York	KeySpan	80	UGI Utilities Inc	UGI
38	Boston Gas CO	KeySpan	81	United Water New Jersey	United Water Resources
39	Colonial Gas Co.	KeySpan	82	United Waterworks	United Water Resources
40	Laclede Group Inc.	Laclede	83	Indiana Gas Co. Inc.	Vectren
41	Laclede Gas Co.	Laclede	84	WGL Holdings Inc.	WGL Holdings
42	Middlesex Water Co	Middlesex Water Co	85	Washington Gas Light Co.	WGL Holdings
43	Niagara Mohawk Power Corp.	National Grid	86	Wisconsin Gas Co.	Wisconsin Energy Corp
			87	York Water Co. (The)	York Water Co. (The)

	<b>Electricity Distribution Companies</b>	<b>Parent</b>
1	Central Illinois Public Service Co.	Ameren
2	AEP Texas North Co	American Electric Power
3	AEP Texas Central Co.	American Electric Power
4	Ohio Power Co	American Electric Power
5	Columbus Southem Power Co.	American Electric Power
6	CenterPoint Energy Houston Electric	CenterPoint Energy
7	CenterPoint Energy Resources Corp	CenterPoint Energy
8	Central Hudson Gas & Electric Co.	CH Energy Group
9	Consolidated Edison Inc.	Consolidated Edison
10	Orange and Rockland Utilities Inc.	Consolidated Edison
11	Consolidated Edison Co. of New York	Consolidated Edison
12	Baltimore Gas & Electric Co	Constellation Energy
13	Duquesne Light Holdings Inc.	Duquesne Light Holdings Inc.
14	Duquesne Light Co	Duquesne Light Holdings Inc.
15	Central Maine Power Co.	Energy East Corporation
16	Connecticut Natural Gas Corp.	Energy East Corporation
17	Southern Connecticut Gas Co.	Energy East Corporation
18	Commonwealth Edison Co.	Exelon
19	PECO Energy Co.	Exelon
20	Jersey Central Power & Light Co.	FirstEnergy
21	Metropolitan Edison Co	FirstEnergy
22	Pennsylvania Electric Co.	FirstEnergy
23	Western Massachusetts Electric Co	Northeast Utilities
24	Connecticut Light & Power Co.	Northeast Utilities
25	NSTAR	NSTAR
26	Boston Edison Co.	NSTAR
27	Commonwealth Electric Co	NSTAR
28	NSTAR Gas Co.	NSTAR
29	Cambridge Electric Light Co.	NSTAR
30	Delmarva Power & Light Co	PEPCO Holdings
31	Atlantic City Electric Co.	PEPCO Holdings
32	Potomac Electric Power Co.	PEPCO Holdings
33	PPL Electric Utilities Corp.	PPL Corp
34	Public Service Electric & Gas Co	Public Service Enterprise Group
35	Public Service Co. of North Carolina Inc.	SCANA Corp.
36	Oncor Electric Delivery Co.	TXU

Source: Standard & Poor's "New Business Profile Scores Assigned for U.S. Utility and Power Companies; Financial Guidelines Revised," June 2004

<b>Parent of Electricity Distribution Companies</b>	<b>% Elec Reg Rev</b>
1 Ameren	83
2 American Electric Power	89
3 CenterPoint Energy	17
4 CH Energy Group	48
5 Consolidated Edison	62
6 Constellation Energy	13
7 Duquesne Light Holdings Inc.	na
8 Energy East Corporation	56
9 Exelon	56
10 FirstEnergy	88
11 Northeast Utilities	84
12 NSTAR	78
13 PEPCO Holdings	56
14 PPL Corp	62
15 Public Service Enterprise Group	66
16 SCANA Corp.	42
17 TXU	na

Source: AUS Utility Reports June 2008

**Parent of Electricity Distribution Companies**

	% Elec Reg Rev
1 Ameren	83
2 American Electric Power	89
3 Consolidated Edison	62
4 Energy East Corporation	56
5 Exelon	56
6 FirstEnergy	88
7 Northeast Utilities	84
8 NSTAR	78
9 PEPCO Holdings	56
10 PPL Corp	62
11 Public Service Enterprise Group	66
 AVERAGE	 71

Companies < 50% Regul Rev:

Centerpoint, CH Energy, Constellation, SCANA.  
TXU, Duquesne n.a.

**S&P 's DISTRIBUTION ELECTRIC UTILITIES  
DCF ANALYSIS: VALUE LINE GROWTH PROJECTIONS**

Company	% Current Divid Yield (1)	Proj EPS Growth (2)	% Expected Divid Yield (3)	Cost of Equity (4)	ROE (5)
1 Amer. Elec. Power	3.8	6.0	4.0	10.0	10.2
2 Ameren Corp.	5.5	3.5	5.7	9.2	9.5
3 CH Energy Group	5.9	1.5	6.0	7.5	7.8
4 Consol. Edison	5.5	4.5	5.8	10.3	10.6
5 Energy East Corp.	5.3	0.5	5.3	5.8	6.1
6 Exelon Corp.	2.3	9.0	2.5	11.5	11.7
7 FirstEnergy Corp.	2.9	8.5	3.2	11.7	11.8
8 Northeast Utilities	3.1	15.0	3.5	18.5	18.7
9 NSTAR	4.4	7.5	4.7	12.2	12.4
10 Pepco Holdings	4.2	11.0	4.7	15.7	16.0
11 PPL Corp.	2.8	14.0	3.2	17.2	17.3
12 Public Serv. Enterprise	2.9	10.5	3.2	13.7	13.9
<b>AVERAGE</b>	<b>4.0</b>	<b>7.6</b>	<b>4.3</b>	<b>11.9</b>	<b>12.2</b>
<b>AVERAGE w/o Northeast Util</b>					<b>11.4</b>

## Notes:

Column 1, 2: Value Line Investment Analyzer, 07/2008

Column 3 = Column 1 times (1 + Column 2/100)

Column 4 = Column 3 + Column 2

Column 5 = (Column 3 /0.95) + Column 2

**DCF ANALYSIS**  
**ANALYSTS' GROWTH PROJECTIONS**

<b>Company</b>	<b>% Current Divid Yield</b>	<b>Proj EPS Growth</b>
	<b>(1)</b>	<b>(2)</b>
1 Amer. Elec. Power	3.8	5.4
2 Ameren Corp.	5.5	5.0
3 CH Energy Group	5.9	
4 Consol. Edison	5.5	3.2
5 Energy East Corp.	5.3	
6 Exelon Corp.	2.3	11.5
7 FirstEnergy Corp.	2.9	6.5
8 Northeast Utilities	3.1	10.0
9 NSTAR	4.4	6.2
10 Pepco Holdings	4.2	9.6
11 PPL Corp.	2.8	16.3
12 Public Serv. Enterprise	2.9	14.3

Notes:

Column 1: Value Line Investment Analyzer, 05/2008

Column 2: Zacks 06/2008

No growth projection available for CH Energy, Energy East.

**S&P'S DISTRIBUTION ELECTRIC UTILITIES  
DCF ANALYSIS: ANALYSTS' GROWTH FORECASTS**

Company	% Current Divid Yield (1)	Proj EPS Growth (2)	% Expected Divid Yield (3)	Cost of Equity (4)	ROE (5)
1 Amer. Elec. Power	3.8	5.4	4.0	9.4	9.6
2 Ameren Corp.	5.5	5.0	5.8	10.8	11.1
3 Consol. Edison	5.5	3.2	5.7	8.9	9.2
4 Exelon Corp.	2.3	11.5	2.6	14.1	14.2
5 FirstEnergy Corp.	2.9	6.5	3.1	9.6	9.8
6 Northeast Utilities	3.1	10.0	3.4	13.4	13.5
7 NSTAR	4.4	6.2	4.6	10.8	11.1
8 Pepco Holdings	4.2	9.6	4.6	14.2	14.5
9 PPL Corp.	2.8	16.3	3.2	19.5	19.6
10 Public Serv. Enterprise	2.9	14.3	3.3	17.7	17.8
<b>AVERAGE</b>	<b>3.7</b>	<b>8.8</b>	<b>4.0</b>	<b>12.8</b>	<b>13.0</b>
<b>MEDIAN w/o PPL</b>					<b>11.1</b>

## Notes:

Column 1: Value Line Investment Analyzer, 05/2008

Column 2: Zacks long-term earnings growth forecast, 06/2008

Column 3 = Column 1 times (1 + Column 2/100)

Column 4 = Column 3 + Column 2

Column 5 = (Column 3 /0.95) + Column 2

**MOODY'S ELECTRIC UTILITIES  
DCF ANALYSIS: VALUE LINE GROWTH PROJECTIONS**

Company	% Current Divid Yield (1)	Proj EPS Growth (2)
1 Amer. Elec. Power	3.8	6.0
2 CH Energy Group	5.9	1.5
3 Consol. Edison	5.5	4.5
4 Constellation Energy	2.3	13.5
5 DPL Inc.	3.9	11.0
6 DTE Energy	5.1	4.5
7 Dominion Resources	3.8	9.5
8 Duke Energy	4.9	[REDACTED]
9 Energy East Corp.	5.3	0.5
10 Exelon Corp.	2.3	9.0
11 FirstEnergy Corp.	2.9	8.5
12 IDACORP Inc.	3.7	3.0
13 NiSource Inc.	5.0	5.0
14 OGE Energy	4.2	4.5
15 PPL Corp.	2.8	14.0
16 Progress Energy	5.8	3.5
17 Public Serv. Enterprise	2.9	10.5
18 Southern Co.	4.6	5.5
19 TECO Energy	4.9	4.0
20 Xcel Energy Inc.	4.5	7.5

Notes:

Column 1, 2: Value Line Investment Analyzer, 5/2008

No growth forecast available for Duke Energy

**MOODY'S ELECTRIC UTILITIES**  
**DCF ANALYSIS: VALUE LINE GROWTH PROJECTIONS**

Company	% Current Divid Yield (1)	Proj EPS Growth (2)	% Expected Divid Yield (3)	Cost of Equity (4)	ROE (5)
1 Amer. Elec. Power	3.8	6.0	4.0	10.0	10.2
2 CH Energy Group	5.9	1.5	6.0	7.5	7.8
3 Consol. Edison	5.5	4.5	5.8	10.3	10.6
4 Constellation Energy	2.3	13.5	2.6	16.1	16.2
5 DPL Inc.	3.9	11.0	4.3	15.3	15.6
6 DTE Energy	5.1	4.5	5.3	9.8	10.1
7 Dominion Resources	3.8	9.5	4.1	13.6	13.8
8 Energy East Corp.	5.3	0.5	5.3	5.8	6.1
9 Exelon Corp.	2.3	9.0	2.5	11.5	11.7
10 FirstEnergy Corp.	2.9	8.5	3.2	11.7	11.8
11 IDACORP Inc.	3.7	3.0	3.8	6.8	7.0
12 NiSource Inc.	5.0	5.0	5.3	10.3	10.5
13 OGE Energy	4.2	4.5	4.4	8.9	9.2
14 PPL Corp.	2.8	14.0	3.2	17.2	17.3
15 Progress Energy	5.8	3.5	6.0	9.5	9.8
16 Public Serv. Enterprise	2.9	10.5	3.2	13.7	13.9
17 Southern Co.	4.6	5.5	4.8	10.3	10.6
18 TECO Energy	4.9	4.0	5.1	9.1	9.4
19 Xcel Energy Inc.	4.5	7.5	4.8	12.3	12.6
<b>AVERAGE</b>	<b>4.2</b>	<b>6.6</b>	<b>4.4</b>	<b>11.0</b>	<b>11.3</b>

## Notes:

Column 1, 2: Value Line Investment Analyzer, 5/2008

Column 3 = Column 1 times (1 + Column 2/100)

Column 4 = Column 3 + Column 2

Column 5 = (Column 3 /0.95) + Column 2

**MOODY'S ELECTRIC UTILITIES**  
**DCF ANALYSIS: VALUE LINE GROWTH PROJECTIONS**

Company	% Current Divid Yield (1)	Proj EPS Growth (2)	% Expected Divid Yield (3)	Cost of Equity (4)	ROE (5)
1 Amer. Elec. Power	3.8	6.0	4.0	10.0	10.2
2 CH Energy Group	5.9	1.5	6.0	7.5	7.8
3 Consol. Edison	5.5	4.5	5.8	10.3	10.6
4 DPL Inc.	3.9	11.0	4.3	15.3	15.6
5 DTE Energy	5.1	4.5	5.3	9.8	10.1
6 Energy East Corp.	5.3	0.5	5.3	5.8	6.1
7 Exelon Corp.	2.3	9.0	2.5	11.5	11.7
8 FirstEnergy Corp.	2.9	8.5	3.2	11.7	11.8
9 IDACORP Inc.	3.7	3.0	3.8	6.8	7.0
10 PPL Corp.	2.8	14.0	3.2	17.2	17.3
11 Progress Energy	5.8	3.5	6.0	9.5	9.8
12 Public Serv. Enterprise	2.9	10.5	3.2	13.7	13.9
13 Southern Co.	4.6	5.5	4.8	10.3	10.6
14 TECO Energy	4.9	4.0	5.1	9.1	9.4
15 Xcel Energy Inc.	4.5	7.5	4.8	12.3	12.6
<b>AVERAGE</b>	<b>4.3</b>	<b>6.2</b>	<b>4.5</b>	<b>10.7</b>	<b>11.0</b>

Notes:

Column 1, 2: Value Line Investment Analyzer, 5/2008

Column 3 = Column 1 times (1 + Column 2/100)

Column 4 = Column 3 + Column 2

Column 5 = (Column 3 /0.95) + Column 2

**MOODY'S ELECTRIC UTILITIES  
DCF ANALYSIS: ANALYSTS' GROWTH FORECASTS**

<b>Company</b>	<b>% Current Divid Yield (1)</b>	<b>Analysts' Growth Forecast (2)</b>
1 Amer. Elec. Power	3.8	5.4
2 CH Energy Group	5.9	
3 Consol. Edison	5.5	3.2
4 Constellation Energy	2.3	18.0
5 DPL Inc.	3.9	8.0
6 DTE Energy	5.1	6.3
7 Dominion Resources	3.8	10.3
8 Duke Energy	4.9	5.8
9 Energy East Corp.	5.3	
10 Exelon Corp.	2.3	11.5
11 FirstEnergy Corp.	2.9	6.5
12 IDACORP Inc.	3.7	6.0
13 NiSource Inc.	5.0	3.0
14 OGE Energy	4.2	4.0
15 PPL Corp.	2.8	16.3
16 Progress Energy	5.8	4.6
17 Public Serv. Enterprise	2.9	14.3
18 Southern Co.	4.6	4.7
19 TECO Energy	4.9	7.3
20 Xcel Energy Inc.	4.5	5.4

Notes:

Column 1: Value Line Investment Analyzer, 5/2008

Column 2: Zacks long-term earnings growth forecast, 06/2008

No growth forecast available for CH Energy Group, Energy East.

**MOODY'S ELECTRIC UTILITIES  
DCF ANALYSIS: ANALYSTS' GROWTH FORECASTS**

Company	% Current Divid Yield (1)	Analysts' Growth Forecast (2)	% Expected Divid Yield (3)	Cost of Equity (4)	ROE (5)
1 Amer. Elec. Power	3.8	5.4	4.0	9.4	9.6
2 Consol. Edison	5.5	3.2	5.7	8.9	9.2
3 Constellation Energy	2.3	18.0	2.7	20.7	20.9
4 DPL Inc.	3.9	8.0	4.2	12.2	12.4
5 DTE Energy	5.1	6.3	5.4	11.8	12.0
6 Dominion Resources	3.8	10.3	4.2	14.5	14.7
7 Duke Energy	4.9	5.8	5.2	11.0	11.3
8 Exelon Corp.	2.3	11.5	2.6	14.1	14.2
9 FirstEnergy Corp.	2.9	6.5	3.1	9.6	9.8
10 IDACORP Inc.	3.7	6.0	3.9	9.9	10.1
11 NiSource Inc.	5.0	3.0	5.2	8.2	8.4
12 OGE Energy	4.2	4.0	4.4	8.4	8.6
13 PPL Corp.	2.8	16.3	3.2	19.5	19.6
14 Progress Energy	5.8	4.6	6.0	10.6	10.9
15 Public Serv. Enterprise	2.9	14.3	3.3	17.7	17.8
16 Southern Co.	4.6	4.7	4.8	9.5	9.7
17 TECO Energy	4.9	7.3	5.2	12.6	12.9
18 Xcel Energy Inc.	4.5	5.4	4.8	10.2	10.4
<b>AVERAGE</b>	<b>4.0</b>	<b>7.8</b>	<b>4.3</b>	<b>12.1</b>	<b>12.4</b>

## Notes:

Column 1: Value Line Investment Analyzer, 5/2008

Column 2: Zacks long-term earnings growth forecast, 06/2008

Column 3 = Column 1 times (1 + Column 2/100)

Column 4 = Column 3 + Column 2

Column 5 = (Column 3 /0.95) + Column 2

**MOODY'S ELECTRIC UTILITIES  
DCF ANALYSIS: ANALYSTS' GROWTH FORECASTS**

Company	% Current Divid Yield (1)	Analysts' Growth Forecast (2)	% Expected Divid Yield (3)	Cost of Equity (4)	ROE (5)
1 Amer. Elec. Power	3.8	5.4	4.0	9.4	9.6
2 Consol. Edison	5.5	3.2	5.7	8.9	9.2
3 DPL Inc.	3.9	8.0	4.2	12.2	12.4
4 DTE Energy	5.1	6.3	5.4	11.8	12.0
5 Duke Energy	4.9	5.8	5.2	11.0	11.3
6 Exelon Corp.	2.3	11.5	2.6	14.1	14.2
7 FirstEnergy Corp.	2.9	6.5	3.1	9.6	9.8
8 IDACORP Inc.	3.7	6.0	3.9	9.9	10.1
9 PPL Corp.	2.8	16.3	3.2	19.5	19.6
10 Progress Energy	5.8	4.6	6.0	10.6	10.9
11 Public Serv. Enterprise	2.9	14.3	3.3	17.7	17.8
12 Southern Co.	4.6	4.7	4.8	9.5	9.7
13 TECO Energy	4.9	7.3	5.2	12.6	12.9
14 Xcel Energy Inc.	4.5	5.4	4.8	10.2	10.4
<b>AVERAGE</b>	<b>4.1</b>	<b>7.5</b>	<b>4.4</b>	<b>11.9</b>	<b>12.1</b>
<b>MEDIAN w/o PPL</b>					<b>10.9</b>

## Notes:

Column 1: Value Line Investment Analyzer, 5/2008

Column 2: Zacks long-term earnings growth forecast, 06/2008

Column 3 = Column 1 times (1 + Colu

Column 4 = Column 3 + Column 2

Column 5 = (Column 3 /0.95) + Colur