

Table 3 American Electric Power Co. Inc. Peer Comparison				
	-Average of past three fiscal years-			
	American Electric Power Co. Inc.	Clnergy Corp.	Dominion Resources Inc.	Southern Co.
Corporate credit rating	BBB/Stable/A-2	BBB+/Stable/A-2	BBB+/Negative/A-2	A/Stable/A-1
(Mil. \$)				
Sales	30,112.7	9,766.2	10,951.3	10,325.0
Net income from cont. oper.	515.3	428.0	951.7	1,285.3
Funds from oper. (FFO)	2,556.3	904.6	2,955.6	2,554.6
Capital expenditures	1,637.3	802.5	2,378.0	1,872.3
Total debt	14,671.0	5,259.4	15,984.6	12,523.9
Preferred stock	120.7	62.8	1,389.7	2,420.7
Common equity	7,722.3	3,311.9	9,706.3	8,780.7
Total capital	23,017.0	8,634.1	27,080.6	21,418.6
Ratios				
Adj. EBIT interest coverage (x)	2.4	3.0	2.3	3.4
Adj. FFO interest coverage (x)	3.4	3.9	3.3	4.2
Adj. FFO/avg. total debt (%)	15.5	17.9	16.6	20.4
Net cash flow/capital expenditures (%)	111.6	75.1	83.1	89.6
Adj. total debt/capital (%)	67.0	60.9	61.5	58.8
Return on common equity (%)	6.6	13.4	9.4	14.2
Common dividend payout (%)	141.7	71.2	78.7	75.4

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Table 4 American Electric Power Co. Inc. Financial Summary					
	-Fiscal year ended Dec. 31-				
	2003	2002	2001	2000	1999
Rating history	BBB/Stable/A-2	BBB+/Stable/A-2	A-/Stable/A-2	A-/Stable/A-2	A-/Positive/-
(Mil. \$)					
Sales	14,545	14,536	61,257	13,694	6,916
Net income from cont. oper.	522	21	1,003	302	520
Funds from oper. (FFO)	2,513	2,817	2,339	1,304	1,022
Capital expenditures	1,358	1,722	1,832	1,773	867
Cash and equivalents	1,182	1,213	333	437	333
Total debt	14,503	13,981	15,529	15,421	8,426
Preferred stock	61	145	156	161	164
Common equity	7,874	7,064	8,229	8,054	5,006
Total capital	22,438	21,949	24,664	23,636	13,596
Ratios					
Adj. EBIT interest coverage (x)	2.6	2.4	2.3	1.7	2.1
Adj. FFO interest coverage (x)	3.4	3.9	2.9	2.0	2.4
Adj. FFO/avg. total debt (%)	16.3	16.9	13.4	9.7	10.7
Net cash flow/capital expenditures (%)	139.5	117.5	85.2	28.1	64.4
Adj. total debt/capital (%)	67.3	66.6	67.0	67.9	66.6
Return on common equity (%)	7.0	0.3	12.3	4.6	10.6
Common dividend payout (%)	118.4	3,776.2	77.5	266.6	89.2

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Research:

Kentucky Utilities Co.

Publication date:
Primary Credit Analyst:

21-Mar-2005
Todd A Shipman, CFA, New York (1) 212-438-7676;
mailto:todd_shipman@standardandpoors.com

Corporate Credit Rating

BBB+/Stable/A-2

Business Profile

1 2 3 4 **5** 6 7 8 9 10

Financial Policy:

Moderate

Debt maturities:

(for LG&E Energy LLC)

2005 \$76 million

2006 \$186 million

2007 \$61 million

2008 \$150 million

Outstanding Rating(s)

Kentucky Utilities Co.

Sr unsecd debt

Local currency

A

CP

Local currency

A-2

Pfd stk

Local currency

BBB-

E.ON AG

Corporate Credit Rating

AA-/Negative/A-1+

Sr unsecd debt

AA-

CP

Local currency

A-1+

CP

Foreign currency

NR

E.ON International Finance B.V.

Sr unsecd debt

NR

Powergen Ltd.

Corporate Credit Rating

A-/Stable/A-2

Sr unsecd debt

Foreign currency

BBB+

E.ON U.K. PLC

Corporate Credit Rating

A-/Stable/A-2

Sr unsecd debt

A-

LG&E Energy LLC

Corporate Credit Rating

BBB+/Stable/--

Powergen U.S. Holdings Ltd.

Corporate Credit Rating

A-/Stable/A-2

Sr unsecd debt

Foreign currency

BBB+

Central Networks East PLC

Corporate Credit Rating

A-/Stable/A-2

LG&E Capital Corp.

Corporate Credit Rating

BBB+/Stable/NR

Sr unsecd debt

<i>Local currency</i>	BBB	KPSC CASE NO. 2005-00341 KIUC 1ST SET ITEM NO. 1 PAGE 52 OF 64
Louisville Gas & Electric Co.		
Corporate Credit Rating	BBB+/Stable/NR	
Sr secd debt		
<i>Local currency</i>	A-	
Pfd stk		
<i>Local currency</i>	BBB-	
Powergen (East Midlands) Investments		
Corporate Credit Rating	A-/Stable/—	
Sr unsecd debt	A-	
Powergen Retail Ltd.		
Corporate Credit Rating	A-/Stable/A-2	
Corporate Credit Rating History		
Dec. 6, 2000	BBB+/A-2	
Sept. 12, 2002	A-/A-2	
Aug. 4, 2003	BBB+/A-2	

Major Rating Factors

Strengths:

- Implicit credit support provided by ultimate parent E.ON AG; and
- *Stable electric utility operations (and associated cash flow) that benefit from supportive regulatory environment.*

Weaknesses:

- Dependent on overseas parent for capital infusions and liquidity;
- Environmental compliance, pension obligations, and capital expenditures require capital infusions; and
- Ill-timed, nonregulated investments at the parent that collectively contribute negative cash flow.

Rationale

The 'BBB+' ratings on Kentucky Utilities Co. (KU) are tied to the consolidated credit profile of immediate parent LG&E Energy LLC (LG&E; BBB+/Stable/—), which is based primarily on the business activities of its two operating utilities in Kentucky and the company's strategic focus on operating the fully integrated utilities. Implicit support for credit quality from LG&E's ultimate parent, E.ON AG (AA-/Stable/A-1+), is factored into the analysis. LG&E's own credit profile has improved to bring it closer to the 'BBB+' rating. However, the degree of E.ON support attributed by Standard & Poor's has not moved beyond that level. The net effect on ratings is neutral.

LG&E's average business profile is supported by low-risk, regulated, and financially sound gas distribution and electric operations, efficient generation facilities that allow for competitive rates, and a supportive regulatory environment. The company's electric operations benefit from a cost-of-fuel-adjustment mechanism and an environmental cost-recovery mechanism, while the company's smaller gas operations benefit from a weather normalization-adjustment clause and a cost-of-gas-adjustment mechanism. Together, these mechanisms reduce exposure to environmental legislation, weather, and potential volatility in natural gas prices, all of which normally concern Standard & Poor's.

The support from E.ON previously incorporated in the credit analysis was based on the expectation that LG&E played an important, long-term role in E.ON's worldwide strategy. However, E.ON currently appears not to envision any expansion of its U.S. presence. The company's financial picture is now more consistent with its current rating due to the roughly \$1 billion of acquisition debt at an intermediate holding company that matured in October 2004.

Liquidity

During the short term, Standard & Poor's expects consolidated capital expenditures to exceed cash

flow from operations due to significant environmental expenditures, gas turbine construction costs, and contributions for the company's underfunded pension and other postretirement benefits obligations. The steady internal cash flow generated by LG&E's regulated operations will not be enough to meet these obligations, thus creating a reliance on external financing. Such funding is expected to be concentrated at E.ON, which is also expected to provide support in the case of short-term liquidity needs. (A cross-default clause in E.ON's credit facility protects LG&E as long as it is a "material subsidiary".)

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LG&E's adequate liquidity is augmented by E.ON. An E.ON-related entity provides a \$150 million credit facility to LG&E to ensure funding availability for its money pool (about \$80 million was outstanding under this facility as of third-quarter 2004).

Some other favorable points include:

- Rate relief at LG&E's regulated entities should favorably affect cash flow, and
- Consolidated debt maturities through 2008 are a manageable 22% of LG&E's total debt.

Some unfavorable points include:

- LG&E has limited room for capital-expenditure reductions, as projected generation outlays are required to maintain reserve margins. Projected growth expenditures will require external funding, and
- Although the company operates various diversified businesses, Standard & Poor's believes any sales would generate little net cash.

Outlook

The stable outlook is based on continued support from E.ON and a corporate strategy that maintains a primarily low-risk, utility-based business profile. Unregulated operations (including asset-based energy marketing that expose the company to weakening power prices in its off-system sales program), a large industrial customer base, and coal-fired generation facilities that require large environmental expenditures detract from LG&E's business profile. A change in either ratings or the outlook on LG&E and its subsidiaries is unlikely, absent a change in how the company fits into E.ON's corporate strategy.

Accounting

The financial statements of LG&E are provided to Standard & Poor's, conform to U.S. GAAP, and are audited by PricewaterhouseCoopers LLC. The separate financial statements of the company's interests in three Argentine gas utilities are not part of that audit, but do not represent a material part of either the overall financial picture of LG&E or its credit profile. With U.S. business activity comprising mainly electric utility operations, most of the financials are subject to regulatory accounting under SFAS No. 71. The incentive to undertake any sustained effort to accelerate revenues or defer expenses to boost earnings is reduced with cost-of-service regulated businesses, as it would mainly serve to justify lower rates in the future. LG&E carries a small amount of regulatory assets on its balance sheet. However, goodwill constitutes a significant proportion (40%) of the total assets of the company as a result of E.ON's purchase of LG&E.

Table 1 Kentucky Utilities Co. – Financial Summary						
–Fiscal year ended Dec. 31–						
Rating history	Avg. of past three fiscal years	BBB+/Stable/A-2	A-/Stable/A-2	BBB+/Watch Pos/A-2	BBB+/Negative/A-2	A+/Stable/A-1
		2003	2002	2001	2000	1999
<i>(Mil. \$)</i>						
Sales	879.8	891.8	888.2	859.5	851.9	937.3
Net income from cont. oper.	93.7	91.4	93.4	96.3	95.5	106.6
Funds from oper. (FFO)	215.3	235.5	194.9	215.6	210.8	199.3
Capital expenditures	240.7	341.9	237.9	142.4	100.6	181.3
Cash and equivalents	4.5	4.9	5.4	3.3	0.3	6.8

Total debt	629.0	730.8	620.0	536.3	546.1	546.3
Preferred stock	40.0	40.0	40.0	40.0	40.0	40.0
Common equity	818.9	907.7	814.1	735.0	669.8	633.0
Total capital	1,488.0	1,678.5	1,474.1	1,311.3	1,255.9	1,223.3
Ratios						
Adj. EBIT interest coverage (x)	5.6	6.7	6.6	4.5	4.0	4.5
Adj. FFO interest coverage (x)	7.9	10.3	9.1	6.0	5.3	5.2
Adj. FFO/avg. total debt (%)	32.9	34.9	30.4	33.4	33.5	31.6
Net cash flow/capital expenditures (%)	84.3	68.2	81.0	128.3	113.4	68.5
Adj. total debt/capital (%)	43.9	43.5	42.1	46.1	47.0	48.1
Return on common equity (%)	11.7	10.4	11.8	13.4	14.3	16.8
Common dividend payout (%)	11.1	0.0	0.0	32.4	101.3	69.9

Table 2 Kentucky Utilities Co. – Market Segments					
	2003	2002	2001	2000	1999
Sales					
Total retail (GWh)	17,594	17,633	16,636	16,974	16,308
Residential (%)	34.1	35.1	34.1	33.7	33.4
Commercial (%)	23.9	23.6	24.0	23.3	23.1
Industrial (%)	33.1	32.6	33.0	34.2	34.7
Other (%)	8.8	8.7	8.9	8.8	8.8
Wholesale (GWh)	5,591	5,780	7,713	7,573	10,188
Total Sales (GWh)	23,185	23,413	24,349	24,547	26,496
Revenue					
Total retail (mil. \$)	739	708	643	619	639
Residential (%)	37.7	38.8	37.9	37.8	37.6
Commercial (%)	25.6	25.2	25.7	25.2	25.0
Industrial (%)	27.8	27.1	27.2	28.0	28.4
Other (%)	8.0	7.9	8.1	8.0	8.1
Wholesale (mil. \$)	138	144	203	198	287
Total revenue (mil. \$)	877	852	846	817	926
Annual sales growth(%)					
Residential	(3.2)	9.2	(0.6)	4.9	3.8
Commercial	1.2	4.3	0.9	5.1	3.2
Industrial	1.6	4.6	(5.5)	2.6	1.4
Total retail	(0.2)	6.0	(2.0)	4.1	2.6
Standard & Poor's retail average	18.3	35.3	23.0	19.0	19.2
Wholesale	(3.3)	(25.1)	1.8	(25.7)	41.0
Total sales growth	(1.0)	(3.8)	(0.8)	(7.4)	14.6
Retail customer growth	1.0	1.4	1.3	1.8	1.8
GWh – Gigawatt-hour.					

Table 3 Kentucky Utilities Co. -- Costs and Rates 2003 Peer Analysis									
\$ per MWh									
Company	Fuel	Variable Product	Prod NF	Purchased Power	Total Product	Total Power Supply	Residential Rates	Commercial Rates	Industrial Rates
AEP Generating Co.	12.16	12.5	9.3	0	21.46	21.47	N.A.	N.A.	N.A.
Appalachian Power Co.	13.25	14.05	3.05	22.04	16.3	18.83	54.3	48.51	35.56
Cincinnati Gas & Electric Co.	13.22	15.84	5.79	506.67	19.02	149.56	72.92	53.58	34.37
Cleveland Electric Illuminating Co.	6.83	12.66	29.11	37.34	35.94	36.82	73.4	84.95	59.42
Columbus Southern Power Co.	13.35	14.77	5.13	25.34	18.49	22.06	75.71	61.01	48.27
Detroit Edison Co.	13.12	14.65	7.57	41.73	20.69	24.01	86.21	78.03	49.14
Duquesne Light Co.	N.A.	N.A.	N.A.	38.13	N.A.	27.41	80.5	50.39	40.96
Indiana Michigan Power Co.	9.22	11.53	13.4	20.25	22.63	22.02	64.41	57	40.59
Indiana-Kentucky Electric Corp.	13.99	15.07	5.4	N.A.	19.39	19.39	N.A.	N.A.	N.A.
Indianapolis Power & Light Co.	10.99	11.98	5	64.88	15.98	16.8	61.17	65.37	45.61
Kentucky Power Co.	12.02	13.24	3.33	22.29	15.35	19.13	50.92	52.52	32.27
Kentucky Utilities Co.	15.98	16.63	3.22	18.18	19.2	18.93	46.4	44.92	35.18
Kingsport Power Co.	N.A.	N.A.	N.A.	29.44	N.A.	29.44	48.18	49.51	32.71
Louisville Gas & Electric Co.	12.39	13.38	4.98	20.4	17.37	18.02	58.26	53.84	37.99
Monongahela Power Co.	11.62	12.4	6.91	46.66	18.52	25.87	71.85	58.19	37.11
Northern Indiana Public Service Co.	15.19	16.36	5.84	31.07	21.03	23.35	94.44	80.97	42.37
Ohio Edison Co.	4.13	8.23	38.88	31.95	43.01	34.61	89.02	82.38	47.45
Ohio Power Co.	11.61	12.92	5.69	18.04	17.3	17.6	66.03	55.93	36.54
Ohio Valley Electric Corp.	12	13.09	5.1	29.45	17.1	23.56	N.A.	N.A.	356.88
PSI Energy Inc.	14.14	15.62	4.14	41.27	18.28	23.28	66.92	52.4	37.24
Pennsylvania Power Co.	4.09	8.29	21.04	31.96	25.13	28.52	90.04	76.75	53.79
Potomac Edison Co.	0	0	27.65	37.84	27.65	36.38	67.98	59.73	37.93
Southern Indiana Gas & Electric Co.	13.31	14.59	6.51	3.81	19.81	13.67	73.39	58.16	38.84
Toledo Edison Co.	6.9	14.57	54.29	32.24	61.19	42.11	90.21	87.19	41.61
Union Light Heat & Power Co.	N.A.	N.A.	N.A.	37.77	N.A.	37.77	64.88	58.8	50.49
West Penn Power Co.	N.A.	N.A.	N.A.	32.46	N.A.	32.54	62.57	52.96	39.54
Wheeling Power Co.	N.A.	N.A.	N.A.	26.91	N.A.	26.92	63.31	54.88	34.06
ECAR average	11.99	13.61	8.11	50.47	20.1	31.7	70.5	63.32	42.1
Standard & Poor's average	15.57	16.96	7.07	46.36	22.65	33.46	83.94	76.55	44.42

N.A. -- Not applicable or available. MWh -- Megawatt hour.

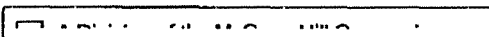
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Research:

Summary: Kentucky Utilities Co.

Publication date: 21-Mar-2005
 Primary Credit Analyst: Todd A Shlpman, CFA, New York (1) 212-438-7676;
mailto:todd_shlpman@standardandpoors.com

Credit Rating: BBB+/Stable/A-2

Rationale

The 'BBB+' ratings on Kentucky Utilities Co. (KU) are tied to the consolidated credit profile of immediate parent LG&E Energy LLC (LG&E; BBB+/Stable/-), which is based primarily on the business activities of its two operating utilities in Kentucky and the company's strategic focus on operating the fully integrated utilities. Implicit support for credit quality from LG&E's ultimate parent, E.ON AG (AA-/Stable/A-1+), is factored into the analysis. LG&E's own credit profile has improved to bring it closer to the 'BBB+' rating. However, the degree of E.ON support attributed by Standard & Poor's has not moved beyond that level. The net effect on ratings is neutral.

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Liquidity

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Some other favorable points include:

- Rate relief at LG&E's regulated entities should favorably affect cash flow, and
- Consolidated debt maturities through 2008 are a manageable 22% of LG&E's total debt.

Some unfavorable points include:

- LG&E has limited room for capital-expenditure reductions, as projected generation outlays are required to maintain reserve margins. Projected growth expenditures will require external

- funding, and
- Although the company operates various diversified businesses, Standard & Poor's believes any sales would generate little net cash.

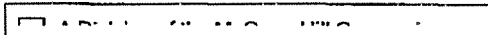
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Outlook

The stable outlook is based on continued support from E.ON and a corporate strategy that maintains a primarily low-risk, utility-based business profile. Unregulated operations (including asset-based energy marketing that expose the company to weakening power prices in its off-system sales program), a large industrial customer base, and coal-fired generation facilities that require large environmental expenditures detract from LG&E's business profile. A change in either ratings or the outlook on LG&E and its subsidiaries is unlikely, absent a change in how the company fits into E.ON's corporate strategy.

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Research:

Summary: Kentucky Power Co.

Publication date: 24-May-2005
 Primary Credit Analyst: Todd A Shipman, CFA, New York (1) 212-438-7676;
mailto:todd_shipman@standardandpoors.com

Credit Rating: BBB/Stable/--

Rationale

Kentucky Power Co. (KPCo), a subsidiary of American Electric Power Co. Inc. (AEP), is a public utility engaged in the generation, purchase, transmission, and distribution of electricity in a service territory covering eastern Kentucky. It participates in the AEP Power Pool, sharing the revenues and costs of pool sales to utilities and power marketers, and also sells directly at wholesale to municipalities. Operations are integrated with the AEP East system.

The ratings on KPCo are based on the consolidated credit profile of its parent, AEP. The ratings on AEP reflect the company's now-complete transition to a renewed focus on its core utility operations from a business model that emphasized unregulated activities. The electric utilities comprising the AEP system range from Texas to Ohio and beyond and operate as either low-risk "wires" businesses or fully integrated regulated utilities. Electric generation is housed in and out of utility rate bases, but a majority of the capacity is directly or virtually subject to stabilizing regulatory oversight. Trading operations once played a prominent role at AEP, but have ceased to be a strategic focus and exert only a small influence on the company's credit profile.

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A large and complex environmental compliance program looms as AEP's greatest credit-related issue. The company projects an environmental capital-expenditure program totaling \$3.5 billion through 2010 to meet stricter air-quality standards. AEP also intends to spend substantial amounts of capital on its transmission and distribution system to improve reliability. The elevated spending levels mean the company will experience negative cash flow for several years, and can be expected to lower utility returns to the point that AEP will need to request higher rates in many of its jurisdictions. Greater regulatory risk and less-competitive rates could affect AEP's business risk profile.

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sells accounts receivables to provide liquidity for the domestic electric subsidiaries.

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Liquidity is provided through a commercial paper program at the parent that lends to subsidiaries through intercompany notes. The commercial paper program is backed by \$2.75 billion in bank facilities that mature in 2005 (\$1 billion), 2006 (\$750 million), and 2007 (\$1 billion).

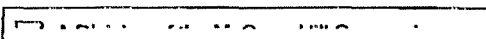
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Research:

Summary: Kentucky Power Co.

Publication date: 29-Aug-2005
 Primary Credit Analyst: Todd A Shipman, CFA, New York (1) 212-438-7676;
mailto:todd_shipman@standardandpoors.com

Credit Rating: BBB/Stable/—

Rationale

Kentucky Power Co. (KPCo), a subsidiary of American Electric Power Co. Inc. (AEP), is a public utility engaged in the generation, purchase, transmission, and distribution of electricity in a service territory covering eastern Kentucky. It participates in the AEP Power Pool, sharing the revenues and costs of pool sales to utilities and power marketers, and also sells directly at wholesale to municipalities. Operations are integrated with the AEP East system.

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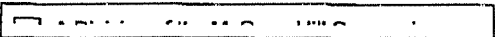
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[Return to Regular Format](#)

Research:

Summary: Kentucky Power Co.

Publication date: 13-Sep-2005
 Primary Credit Analyst: Todd A Shipman, CFA, New York (1) 212-438-7676;
mailto:todd_shipman@standardandpoors.com

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The ratings on KPCo are based on the consolidated credit profile of parent AEP. The company has a business profile of '6' (satisfactory) and its financial profile is considered adequate. (Utility business profiles are categorized from '1' (excellent) to '10' (vulnerable).) The ratings on AEP reflect the company's now-complete transition to a renewed focus on its core utility operations from a business model that emphasized unregulated activities. The electric utilities comprising the AEP system range from Texas to Ohio and beyond and operate as either low-risk "wires" businesses or fully integrated regulated utilities. Electric generation is housed in and out of utility rate bases, but a majority of the capacity is directly or virtually subject to stabilizing regulatory oversight. Trading operations once played a prominent role at AEP, but are no longer a strategic focus and exert only a small influence on the company's credit profile.

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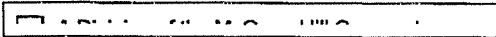
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Kentucky Power Company

REQUEST

Please provide copies of all securities analyst reports on American Electric Power from 2004 through 2005

RESPONSE

Please see the enclosed compact disk with the requested material.

WITNESS: Errol K Wagner

KENTUCKY POWER COMPANY
American Electric Power
FIRST SET OF DATA REQUESTS OF
KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.
Case No. 2005-00341

Question No. 3

Please provide copies of Mr. Moul's work papers. Please provide all spreadsheet analyses on CD-ROM with formulas intact.

Response

The requested workpapers are on the enclosed CD.

Witness: Paul R. Moul

**KENTUCKY POWER COMPANY
American Electric Power
FIRST SET OF DATA REQUESTS OF
KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.
Case No. 2005-00341**

Question No. 4

Please provide copies of all articles, treatises, publications and all other supporting documentation used by Mr. Moul in the preparation of his Direct Testimony. Please include copies of all articles cited by Mr. Moul in his Direct Testimony, Appendices, and Exhibits. Please provide all spreadsheet analyses on CD-ROM with formulas intact.

Response

Many of the supporting documentation involving Mr. Moul's testimony has been provided in response to data requests of other parties (e.g., the Commission Staff and AG). Other requested materials are attached.

Please see response to KIUC 1st Set, Item No. 3 for electronic copies.

WITNESS: Paul R Moul

**PENNSYLVANIA
PUBLIC UTILITY COMMISSION
Harrisburg, PA 17105-3265**

Public Meeting held January 10, 2002

Commissioners Present:

Glen R. Thomas, Chairman, Statement attached
Robert K. Bloom, Vice Chairman
Aaron Wilson, Jr.
Terrance J. Fitzpatrick

Pennsylvania Public Utility Commission,	R-00016339
Joan B. Kristoff	R-00016339C0001
AK Steel Corporation	R-00016339C0002
Irwin A. Popowsky, Consumer Advocate	R-00016339C0003
Jim Brothers	R-00016339C0004
Lawrence Boucher	R-00016339C0005
John Janiga	R-00016339C0006
Loretta Pryor	R-00016339C0007
Albert Barrera, Jr.	R-00016339C0008
Herbert N. Preble	R-00016339C0009
Mrs. Kenneth Rudat	R-00016339C0010
Werner H. Frank	R-00016339C0011
Samuel J. Pasquarelli	R-00016339C0012
Mr. & Mrs. Carmine Napolitano	R-00016339C0013
Susan A. Haines	R-00016339C0014
Erica O. LeClere	R-00016339C0015
Kenneth & Katherine Booth	R-00016339C0016
Andy Turriziani	R-00016339C0017
Donald Major	R-00016339C0018
Winifred H. Jennings	R-00016339C0019
Leo & Alice Samuels	R-00016339C0020
Edward R. Hoffman	R-00016339C0021
West Brownsville Borough	R-00016339C0022
James F. Curtin	R-00016339C0023
William Rakauskas	R-00016339C0024
James Maunder	R-00016339C0025
Francis J. Nawrocki	R-00016339C0026
Paul Walaski	R-00016339C0027

Office of Small Business Advocate	R-00016339C0028
Hill Neighborhood Association, Inc.	R-00016339C0029
City of Connellsville	R-00016339C0030
Donato Telesca	R-00016339C0031
Thomas E. Tompkins	R-00016339C0032
Bruce Bartko	R-00016339C0033
Elizabeth & Bernhard Iken	R-00016339C0034
Daniel Tischendorf	R-00016339C0035
Pennsylvania-American Water Large Users Group	R-00016339C0036
Mimma C. Constantine	R-00016339C0037
Morris Laundromation Services, Inc.	R-00016339C0038
Mr. D. Wintermyer	R-00016339C0039
Vincent Gallo	R-00016339C0040
Robert F. Heisinger	R-00016339C0041
Noelle C. Fluri	R-00016339C0042
Kim Davis	R-00016339C0043
William J. Becker	R-00016339C0044
A Pocono Country Place	R-00016339C0045
Douglas L. Hoover and Jacqueline A. Battista	R-00016339C0046
Susan Leigh DeSilva	R-00016339C0047
Ernest E. Campos	R-00016339C0048
Herbert Womack	R-00016339C0049
Precious Kitchen-Hogans	R-00016339C0050
Rose McGrath	R-00016339C0051

v.

Pennsylvania-American Water Company

OPINION AND ORDER

VI. RATE OF RETURN

It has been determined in this Commonwealth that a public utility is entitled to an opportunity to earn a fair rate of return on the value of its property which is dedicated to public service. (*Pennsylvania Gas & Water Company v. Pennsylvania Public Utility Commission*, 341 A.2d 239 (Pa. Cmwlth. 1975)). This is consistent with longstanding decisions by the United States Supreme Court, including *Bluefield Water Works and Improvement Company v. Public Service Commission of West Virginia*, 262 U.S. 679, 690-93 (1923), and *Federal Power Commission v. Hope Natural Gas Company*, 320 U.S. 591 (1944).

A utility's rate of return has been defined as follows:

[t]he *rate of return* is the amount of money a utility earns, over and above operating expenses, depreciation expense and taxes, expressed as a percentage of the legally established net valuation of utility property, the rate base. Included in the 'return' is interest on long-term debt, dividends on preferred stock, and earnings on common stock equity. In other words, the return is that money earned from operations which is available for distribution among the capital. In the case of common stockholders, part of their share may be retained as surplus. The rate-of-return concept merely converts the dollars earned on the rate base into a percentage figure, thus making the item more easily comparable with that in other companies or industries.

(P. Garfield and W. Lovejoy, *Public Utility Economics*, (1964), p. 116).

In determining what is a fair rate of return, we have traditionally considered the utility's capital structure in conjunction with its costs of debt, preferred stock, and common equity, as will be discussed below.

A. Capital Structure

The following is a summary of the Parties' positions regarding PAWC's capital structure:

<u>Capital Structure</u>	<u>PAWC(1)</u>	<u>OCA(2)</u>	<u>OTS(3)</u>
	%	%	%
Debt	56.15	56.15	56.15
Preferred Stock	1.23	1.23	1.23
Common Equity	<u>42.62</u>	<u>42.62</u>	<u>42.62</u>
	<u>100.00</u>	<u>100.00</u>	<u>100.0</u>

(1) PAWC Exh. 9-A, Sch.1

(2) OCA St. 3, Sch. JRW 1

(3) OTS St. 1, p. 8

PAWC's position is based on the use of a capital structure at the end of the future test year, December 31, 2001. PAWC chose the capitalization ratios tabulated above because these ratios are indicative of those that PAWC will maintain during the period that new rates will be in effect. No Party opposed the capital structure proposed by PAWC.

The ALJ, noting the consensus of the Parties, recommended the adoption of PAWC's anticipated capital structure at the end of the future test year.

Our review of the record evidence leads us to conclude that the capitalization ratios, consisting of 56.15 percent long-term debt, 1.23 percent preferred stock, and 42.62 percent common equity as of the end of the future test

year ending December 31, 2001, are reasonable and appropriate for purposes of this proceeding.

B. Cost of Debt

Regarding its cost of debt, PAWC's claimed cost of debt for this proceeding was originally 7.52 percent. (PRM Exh. No. 9-A, Schedule-1). The OCA accepted this cost of debt as appropriate for this proceeding. (OCA Stmt. 3, Sch. JRW 1). The OTS, however, recommended a 7.46 percent cost of debt. (OTS Exhibit No.1, Schedule 5). The embedded cost of debt was revised and later amended by PAWC on November 9, 2001. The revised figure is 7.26 percent. The ALJ asserted that the revised cost of debt is not disputed by the Parties. (R.D., p.47).

In our review of this matter, we note that none of the Parties in this proceeding has disputed PAWC's 7.26 percent revised cost of debt in their Exceptions. Therefore, we will adopt the ALJ's recommendation and adopt the 7.26 percent cost of debt as revised by PAWC.

C. Cost of Common Equity

The following table summarizes the cost of common equity claims made, and methodologies used, by the Parties in this proceeding:

<u>Methodology</u>	<u>PAWC(1)</u>	<u>OCA(2)</u>	<u>OTS(3)</u>
	%	%	%
Discounted Cash Flow (DCF)	10.93	9.0	9.25
Risk Premium Model (RPM)	12.50	9.1	
Capital Asset Pricing Model (CAPM)	12.67		
Comparable Earnings Method (CEM)	12.90		
Recommendation	<u>12.00</u>	<u>9.0</u>	<u>9.25</u>

- (1) PAWC St. No. 9, pp. 4-5
- (2) OCA St. No. 3, pp.19-24
- (3) OTS St. 1, pp. 22-23

1. Position of the Parties

PAWC, after applying four of the above cited and widely recognized market-based models to market data for its barometer group of water utilities, arrived at a 12.00 percent cost of common equity recommendation. PAWC's barometer group consists of four water utilities with actively traded common stock. These water utilities appear in Edition 9 of the *Value Line Investment Survey*. (PAWC Exhibit No. 9-A, Schedule 3, Page 3). PAWC argued that these models, used *in tandem*, are based on the premise that no one method or model of the cost of equity can be applied in an isolated manner.

According to PAWC, informed judgment must be used to take into consideration the relative risk traits of the firm. It is for this reason that PAWC uses more than one method to measure PAWC's cost of equity. (PAWC Statement No. 9, p.25). It should be noted that PAWC's DCF common equity cost rate recommendation of 10.93 percent, which is tabulated above, includes a 60

basis point upward adjustment to *reconcile* the divergence between the market and book value of the common stock. (R.D., p.48).

Specifically, PAWC calculated a recent six-month average dividend yield of its barometer group of 3.70 percent which it basically increased by $\frac{1}{2}$ the growth rate of 6.50 percent or $3.70 \text{ percent} * 1.0325 = 3.83 \text{ percent}$. The resultant $3.83 \text{ percent} + 6.50 \text{ percent} = 10.33 \text{ percent}$ DCF result is subsequently increased by 60 basis points to 10.93 percent as explained above.

The average of the three market based cost rates of common equity, excluding comparable earnings which is not market based, yields a 12.03 percent result and forms the essence of PAWC's recommended common equity cost rate of 12 percent. (PAWC Statement No. 9, p.4).

The OTS relied solely on the DCF method to arrive at its 9.25 percent recommended cost rate of common equity. The OTS applied the DCF method to both the market data of American Water Works (the parent of PAWC) and to its barometer group of water utilities whose stock is actively traded. The OTS' barometer group consists of six publicly traded water utilities that operate in the eastern United States, have at least two sources of analysts' forecasts of earnings growth, and are not the announced subject of an acquisition.

Specifically, the OTS averaged the spot dividend yield and the 52-week average dividend yield of his barometer group to reach a 3.55 percent composite dividend yield. The OTS then added its 5.25 percent growth rate recommendation to the 3.55 percent dividend yield to reach an 8.80 percent DCF recommendation for its barometer group.

Next, the OTS averaged the spot dividend yield and the 52-week average of American Water Works, the parent of PAWC, to reach a 3.28 percent composite dividend yield. The OTS then added its 6.25 percent growth rate recommendation to the 3.28 percent dividend yield to reach a 9.53 percent DCF recommendation for PAWC. The OTS proceeded to average the aforementioned 8.80 percent and 9.53 percent results to reach a 9.17 percent overall DCF recommendation which it rounded to 9.25 percent.

The OCA relied upon the DCF method and the Risk Premium method to produce common equity cost rates of 9.0 percent and 9.1 percent, respectively. The OCA then chose 9.0 percent as its common equity cost rate recommendation. Specifically, the OCA averaged the 12-month composite dividend yield of 3.8 percent and the latest one-month average dividend yield of 3.6 percent to develop the DCF dividend yield of 3.7 percent for its barometer group. Next, in order to account for dividend growth in the period in which rates will be in effect, the OCA adjusted the 3.7 percent dividend yield by one-half the expected dividend growth rate of 5.25 percent or 2.63 percent. The OCA's DCF result is thereby $3.7 \text{ percent} * 1.0263 + 5.25 \text{ percent} = 9.0 \text{ percent}$. (OCA Statement No. 3, p.19).

Next, the OCA used the risk-free Treasury securities over an 18-month period to arrive at a rate of 5.6 percent as the risk-free premium. The OCA then derived a risk premium range from data for his barometer group, which ranged from 3.0 percent to 4.4 percent. Using the average, the OCA concluded that the indicated rate of return was 9.1 percent. The OCA subsequently recommended a 9.0 percent equity return rate. (OCA Statement No. 3, p. 24).

2. ALJ Recommendation

After considering the arguments of the Parties regarding the cost of common equity, the ALJ recommended that we permit PAWC the opportunity to earn a rate of return on common equity of 10.0 percent. It is the ALJ's position that a 10.0 percent rate of return on common equity is amply supported by the record. The ALJ also noted that the events of September 11, 2001, have changed the perception of riskiness of the utility business. Specifically, the ALJ maintained that the aforementioned events have accentuated a slowdown in the economy with a resultant drop in the cost of borrowing money. (R.D., p. 50).

3. Exceptions

PAWC excepts to ALJ Nemeč's 10.0 percent common equity cost rate recommendation. PAWC submits that the ALJ's 10.0 percent recommendation falls nearly midway between PAWC's 10.93 percent DCF result and the 9.0 percent DCF calculation recommended by the OCA. Therefore, PAWC surmises that the ALJ relied extensively, and perhaps exclusively, on the DCF method. In its Exceptions, PAWC avers that the DCF method should not be relied upon exclusively, to the exclusion of other generally accepted methods, to form a cost of common equity recommendation. (PAWC Exc., pp. 5-6).

PAWC sets forth its position that the rate of return on common equity issue cannot be resolved solely on the analysis of technical and market-driven data. PAWC believes that resolution of this issue must also take into account the specific challenges confronting the water utility industry in general and PAWC in particular. PAWC infers that because it has made a substantial investment in utility plant to comply with the provisions of the Safe Drinking

Water Act, 42 USC §§300(f) et seq., and also to rehabilitate aging infrastructure, strict adherence to a mechanistic cost of common equity calculation is inappropriate. Moreover, PAWC argues that the tragic events of September 11, 2001, have underscored the risks that water suppliers face every day. PAWC, therefore, concludes that it is in this broader context that the evidence of record should be evaluated. (PAWC Exc., pp. 5-6)

PAWC further argues that extensive reliance on the DCF method is inappropriate because: (1) PAWC's stock is not publicly traded and, therefore, the DCF method provides no direct evidence as to PAWC's cost of equity capital; (2) because of the recent spate of mergers, the universe of comparable companies has shrunk to the point where the usefulness of any particular group must be questioned; (3) PAWC alleges that when the DCF results are applied to an original cost rate base, its cost of equity capital will be understated when the market prices of the stocks used in the analysis substantially exceed book values. PAWC alleges that it sought to correct the "mismatch" of market and book values by making a 60 basis adjustment to his raw DCF finding of 10.33 percent. (PAWC Exc., p.6).

In their Reply Exceptions, both the OTS and the OCA rejoin that the Commission has relied upon the DCF analysis and informed judgment as the appropriate means of measuring the cost of common equity. *See e.g., Pa. P.U.C. v. City of Lancaster*, 197 P.U.R.4th 156 (1999), *Pa. P.U.C. v. Consumers Pennsylvania Water Company-Roaring Creek Division (Roaring Creek)*, 87 Pa. P.U.C. 826 (1997), *Pa. P.U.C. PECO Energy Company*, 87 Pa. P.U.C. 184, 212-213 (1997). (OTS R.E., p.4). The OCA indicates that in *Roaring Creek, supra*, we concluded that little credence can be placed on the CAPM and risk premium methodologies. The OCA further argues that we have not used the aforementioned methodologies in recent years. (OCA Reply Exc., p.12).

Both the OTS and the OCA contend that PAWC's view that, because its stock is not publicly traded, the DCF method provides no direct evidence as to PAWC's cost of equity capital, is misguided. The OCA rejoins that PAWC made the exact same argument in its 1995 base rate case, and we still applied the DCF method. *Pa. P.U.C. v. Pennsylvania American Water Co.*, 85 Pa PUC 13, 40 (1995); *Pa. P.U.C. v. Pennsylvania American Water Co.*, Docket No. R-00943231, Recommended Decision at 54-55 (May 25, 1995). The OCA, therefore, concludes that PAWC has shown no reason to change in the instant case. (OCA Reply Exc., p. 14).

The OTS excepts to the ALJ's 10.00 percent common equity cost rate recommendation. The OTS alleges that the ALJ's choice of a 10.00 percent cost of common equity lacks both supporting facts and rationale. The OTS thereby concludes that absent any specific support, the ALJ's 10.00 percent common equity cost rate recommendation must be rejected as unsubstantiated by the record of this case. The OTS takes issue with the ALJ's contention that the events of September 11, 2001, have changed the perception of the risk inherent in the utility business. The OTS contends that the ALJ's contention is mere speculation and is unsubstantiated by the instant record.

The OTS also submits that the ALJ mischaracterizes the testimony of its rate of return witness. The OTS argues that, contrary to the ALJ's Recommended Decision which avers that its 9.25 percent cost of common equity recommendation is merely based upon the 9.43 to 9.63 percent range of DCF common equity cost rates of PAWC's parent, AWW, the OTS' 9.25 percent cost of common equity recommendation is also based upon the barometer group's 8.67 percent to 8.94 percent range of DCF common equity cost rates. (OTS Exc., p. 13).

In its Reply Exceptions, PAWC maintains that the OTS' contention that the ALJ mischaracterized its position by neglecting to mention its barometer group DCF results (8.67 percent to 8.94 percent) is misplaced. Accordingly, PAWC argues that the barometer group assembled by the OTS is not representative of PAWC because it includes a number of very small water companies whose growth prospects are extremely limited. As a result of their size, the *Value Line Investment Survey* does not even publish financial analyst growth forecasts for these companies. (PAWC R.E., pp.13-14).

The OCA excepts to the ALJ's recommended cost of common equity of 10 percent and, accordingly, submits that the common equity cost rate should be 9 percent. The OCA indicates that the primary discrepancy between the common equity cost rates cited above is that its barometer group more accurately reflects the financial profile of PAWC as opposed to the barometer groups which yielded the ALJ's composite recommendation. (OCA Exc., p. 19). Furthermore, the OCA contends that the lower interest and inflation rates as a result of the events associated with September 11, 2001, decreased PAWC's cost of common equity capital.

In its Reply Exceptions, PAWC maintains that the OCA's common equity cost rate recommendation of 9.0 Percent is confiscatory. Specifically, PAWC alleges that even if the OCA's barometer group is financially representative of PAWC, which it disputes, the barometer is actually earning a 10.6 percent equity return. (Company R.E., p.14).

4. Disposition

Historically, we have primarily relied on the DCF methodology in arriving at our determination of the proper cost of common equity. We have, in

many recent decisions, determined the cost of common equity primarily based upon the DCF method and informed judgment. (See *Pennsylvania Public Utility Commission v. Philadelphia Suburban Water Company*, 71 Pa. PUC 593, 623-632 (1989); *Pennsylvania Public Utility Commission v. Western Pennsylvania Water Company*, 67 Pa. PUC 529, 559-570 (1988); *Pennsylvania Public Utility Commission v. Roaring Creek Water Company*, 150 PUR4th 449, 483-488 (1994); *Pennsylvania Public Utility Commission v. York Water Company*, 75 Pa. PUC 134, 153-167 (1991); *Pennsylvania Public Utility Commission v. Equitable Gas Company*, 73 Pa. PUC 345-346 (1990)).

We find that the DCF method is the preferred method of analysis to determine a market based common equity cost rate. The Parties' DCF recommendations, excluding PAWC's "at risk" adjustment, range from 9.00 percent to 10.33 percent. Taking into account the increased perception of risk of the utility business as a result of the events of September 11, 2001, we find that the ALJ's rate of return on common equity recommendation of 10.00 percent is the most reasonable, as further adjusted below.

We note that, in *Lower Paxton Township v. Pennsylvania Public Utility Commission*, 317 A.2d 917 (Pa. Cmwlth. 1974) (*Lower Paxton Township*), the Commonwealth Court recognized that this Commission may consider such factors that affect the cost of capital such as the utility's financial structure, credit standing, dividends, risks, regulatory lag, wasting assets and any peculiar features of the utility involved.

We are persuaded by PAWC's "at risk" adjustment of 60 basis points. PAWC argues that a preliminary DCF calculation, which is computed using the market price of PAWC's common stock, should be adjusted to reconcile the divergence between market and book values. The indicated cost of common

equity of 10 percent, therefore, reflects the barometer group's average *market* capitalization, which includes a common equity ratio of 62 percent as opposed to our recommended common equity ratio of 42.62 percent which reflects significantly more financial risk.

PAWC further argues that, when investors value a Company's common stock, they employ actual market capitalization data and not book data although book capitalization is employed for ratemaking purposes. Accordingly, we find that, in order to place the computed DCF result on a consistent basis with the greater financial risk inherent in PAWC's book value-derived capital structure ratios, a 60 basis point financial risk adjustment above our 10.00 percent representative DCF common equity cost rate recommendation is warranted.

Based on our analysis of the record, we conclude that PAWC's cost of common equity of 10.60 percent is reasonable and appropriate under the circumstances in this proceeding.

5. Conclusion

The following table summarizes our determinations concerning PAWC's capital structure, cost of debt, cost of preferred stock, and cost of common equity, as well as the resulting weighted costs and overall rate of return:

<u>Capital Structure</u>	<u>Ratio</u>	<u>Cost Rate</u>	<u>Weighted Cost</u>
Debt	56.15%	7.26%	4.08%
Preferred Stock	1.23%	8.05%	.10%
Common Equity	<u>42.62%</u>	10.60%	<u>4.52%</u>
	<u>100.00%</u>		<u>8.70%</u>

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Public Meeting held July 18, 2002

Commissioners Present:

Glen R. Thomas, Chairman
Robert K. Bloom, Vice Chairman
Aaron Wilson, Jr., Statement attached
Terrance J. Fitzpatrick, Statement Concurring and Dissenting in part attached
Kim Pizzingrilli

Pennsylvania Public Utility Commission, *et al.*

R-00016750

R-00016750C0001-C0091

v.

Philadelphia Suburban Water Company.

OPINION AND ORDER

VIII. RATE OF RETURN

Commonwealth case law clearly states that a public utility is entitled to an opportunity to earn a fair rate of return on the value of its property which is dedicated to public service. *Pennsylvania Gas & Water Company v. Pennsylvania Public Utility Commission*, 341 A.2d 239 (Pa. Cmwlth. 1975). This is consistent with longstanding decisions by the United States Supreme Court, including *Bluefield Water Works and Improvement Company v. Public Service Commission of West Virginia*, 262 U.S. 679, 690-93 (1923), and *Federal Power Commission v. Hope Natural Gas Company*, 320 U.S. 591 (1944).

A utility's rate of return has been defined as follows:

[t]he *rate of return* is the amount of money a utility earns, over and above operating expenses, depreciation expense and taxes, expressed as a percentage of the legally established net valuation of utility property, the rate base. Included in the 'return' is interest on long-term debt, dividends on preferred stock, and earnings on common stock equity. In other words, the return is that money earned from operations which is available for distribution among the capital. In the case of common stockholders, part of their share may be retained as surplus. The rate-of-return concept merely converts the dollars earned on the rate base into a percentage figure, thus making the item more easily comparable with that in other companies or industries.

(P. Garfield and W. Lovejoy, *Public Utility Economics*, (1964), p. 116).

In determining what is a fair rate of return, we have traditionally considered the utility's capital structure in conjunction with its costs of debt, preferred stock, and common equity, as will be discussed below.

A. Capital Structure

The following is a summary of the Parties' positions regarding PSWC's capital structure:

<u>Capital Structure</u>	<u>PSWC(1)</u>	<u>OTS(2)</u>	<u>OCA(3)</u>
	%	%	%
Long-term Debt	52.26	52.26	46.3
Short-term Debt			9.00
Common Equity	<u>47.74</u>	<u>47.74</u>	<u>44.7</u>
Total Capital	<u>100.00</u>	<u>100.00</u>	<u>100.0</u>

(1) PSWC Main Brief, p. 42

(2) OTS Main Brief, p. 34

(3) OCA Main Brief, p. 77

1. Positions of the Parties

PSWC's position is based on the use of a capital structure at the end of the future test year, June 30, 2002. PSWC chose the capitalization ratios tabulated above because these ratios are indicative of those that PSWC will maintain to finance its claimed rate base during the period that new rates will be in effect. The OTS accepts the capital structure proposed by PSWC because, according to OTS, it protects the interests of all Parties to the instant proceeding and is, therefore, acceptable for ratemaking purposes.

The OCA alleges that PSWC's proposed capital structure does not accurately represent the source of its capital. Specifically, the OCA maintains that the evidence of the instant proceeding shows a consistent and ongoing pattern of short-term

debt usage by PSWC to finance projects other than construction work in progress (CWIP), so that short-term debt must comprise a portion of PSWC's capital structure. (R.D., p. 63).

2. The ALJ's Recommendation

The ALJ, noting that the Commission in numerous prior cases rejected the exact same arguments raised by the OCA, recommended the adoption of PSWC's proposed capital structure anticipated at the end of the future test year. Specifically, the ALJ indicated that, although PSWC utilizes short-term debt on an on-going basis, it has used, and will continue to use, short-term debt to support construction activities (CWIP as well as plant placed in service between rate cases), the acquisition of other water and wastewater systems, and other short-term borrowing needs (e.g., tax and interest payments). (R.D., p. 66).

3. Exceptions and Reply Exceptions

In its Exceptions the OCA states that it is well settled that if short-term debt primarily finances CWIP and non-CWIP short-term debt is insignificant, such short-term debt should not be included in rate base. *Pa. P.U.C. v. Philadelphia Suburban Water Co.*, 67 Pa. PUC 752, 96 PUR4th 158 (1988) (*PSWC 1988*). The OCA maintains, however, that it has demonstrated that an average of fifty percent and as much as 87.7 percent of all PSWC short-term debt funds are non-CWIP, and that short-term debt is a significant amount of PSW's non-CWIP funds. Moreover, the OCA argues that PSWC consistently carries short-term debt, without replacing it with permanent financing, evidencing that short-term debt contributes to financing PSWC's rate base. Therefore, the OCA concludes that under *PSWC 1988, supra*, the Commission should include short-term debt in PSWC's capital structure. (OCA Exc., pp. 21-22).

The OCA maintains that the ALJ erred in characterizing its short-term debt amount as far exceeding PSWC's credit lines. The OCA indicates that between December 1999 and February 2002, records show that that PSWC's short-term debt approximated the \$79 million of short-term debt that PSWC disputes. The OCA further maintains that the ALJ erred by disregarding the fact that PSWC has relied upon rating services, such as Standard and Poor's, including a short-term debt component to achieve its credit rating, while excluding that same short-term debt component for ratemaking purposes. Since PSWC's credit ratings reflect the inclusion of short-term debt in its capital structure, the OCA argues that it is erroneous to exclude the short-term debt component for ratemaking purposes. (OCA Exc., pp. 23-24).

PSWC argues that, contrary to the OCA's Exceptions, its ongoing short-term debt balance does not finance today's rate base nor support CWIP. PSWC maintains that it utilizes short-term debt to support plant placed in service between rate cases (plant that is no longer in CWIP but has yet to be included in rates), to finance the acquisition of other water and wastewater systems and to meet other short-term borrowing needs. Alternatively, PSWC maintains that, consistent with past practice, it will employ a combination of long-term debt and common equity to finance its proposed rate base. PSWC, therefore, concludes that we should deny the OCA's Exception that its short-term debt be included in its capital structure. (PSWC. R.Exc., pp. 12-13).

4. Disposition

We are persuaded that PSWC has properly shown that it uses its non-CWIP short-term debt for a number of purposes other than to finance its rate base, such as the support of plant placed in service between rate cases, to finance the acquisition of other water and wastewater systems and to meet other short-term borrowing needs. The record shows that PSWC has had anywhere from \$20 to \$40 million of short-term debt

outstanding related to acquisition activity alone. We, therefore, adopt the position of the ALJ set forth above and deny the Exceptions of the OCA regarding capital structure.

B. Cost of Debt

1. Positions of the Parties

Regarding its cost of debt, PSWC's claimed cost of debt for this proceeding is 7.01 percent. (PSWC Exh. No. 4-A, updated p. 14). No Party contested this cost rate. (OTS M.B., p. 17; OCA M.B., p. 83).

2. The ALJ's Recommendation

The ALJ recommended adoption of a cost rate for long-term debt of 7.01%. (R.D., p. 67).

3. Exceptions and Reply Exceptions

No parties filed Exceptions on this issue.

4. Disposition

Since no Party excepts to the ALJ's recommendation on this issue, and finding that recommendation to be otherwise reasonable and in accord with record evidence, it is adopted.

C. Cost of Common Equity

The following table summarizes the cost of common equity claims made, and methodologies used, by the Parties in this proceeding:

<u>Methodology</u>	<u>PSWC(1)</u> %	<u>OTS(2)</u> %	<u>OCA(3)</u> %
Discounted Cash Flow Range (DCF)	10.29-13.16	9.92-10.37	8.9
Risk Premium Model (RPM)	12.50-13.00		8.84
Capital Asset Pricing Model (CAPM)	11.64-12.06		
Comparable Earnings Method (CEM)	13.55		
Recommendation	<u>11.75</u>	<u>9.90</u>	<u>9.00</u>

(1) PSWC St. No. 4, p. 49

(2) OTS St. 1-SR, p. 8

(3) OCA St. 2, p. 26

1. Positions of the Parties

PSWC, after applying four of the above cited and widely recognized market-based models to market data for its barometer group of water utilities, arrived at an 11.75 percent cost of common equity recommendation. Because all of PSWC's common stock is owned by its parent PSC and, therefore, is not publicly traded, it analyzed data for PSC as well as a barometer group consisting of four water utilities with actively traded common stock. These water utilities appear in the *Water Utility Industry Category* of the *Value Line Investment Survey*. (PSWC Exhibit No. 4-A, Schedule 3, Page 5). PSWC also employed a barometer group of eleven natural gas local distribution companies. PSWC argued that it is essential that a variety of techniques are employed to measure its cost of equity because of the limitations/infirmities that are inherent in each method.

According to PSWC, informed judgment must be used to take into consideration the relative risk traits of the firm. It is for this reason that PSWC uses more than one method to measure its cost of equity. (PSWC Statement No. 4, p. 24). It should be noted that PSWC's DCF computed range of common equity cost rates (9.82-12.15 percent) has been increased to 10.29-13.16 percent, which is tabulated above, in order to adjust for the financial risk associated with the book value of the capitalization. (PSWC Statement 4, pp. 35-36).

Specifically, PSWC calculated a recent six-month average dividend yield of 2.48 percent for PSC, 3.46 percent for the Water Company Group, and 4.72 percent for the LDC Group which it basically increased to reflect the prospective nature of dividend payments to include higher expected dividends for the future. The adjusted dividend yields that are calculated in Appendix E of Statement No. 4 are 2.58 percent for PSC, 3.57 percent for the Water Group, and 4.90 percent for the LDC Group.

PSWC utilizes an 8.00 percent growth rate for PSC, a 6.25 percent growth rate for the Water Group and a 7.25 Percent growth rate for the LDC Group. These growth rates are based on its opinion that a blend of historical performance and published forecasts are appropriate to estimate the DCF growth rates listed above. Thus, PSWC proposes a DCF result of 10.58 percent (2.58 percent plus 8.00 percent) for PSC, 9.82 percent (3.57 percent plus 6.25 percent) for the Water Group, and 12.15 percent (4.90 percent plus 7.25 percent) for the LDC Group, before making its aforementioned financial risk adjustment which raises its proposed DCF results to 11.69 percent, 10.29 percent, and 13.16 percent, respectively.

Although PSWC utilized four other cost of common equity estimating techniques enumerated above, the ALJ emphasized that the RP, CAPM, and Comparable Earnings methods of analysis are inappropriate for use in rate-making because they are

based on historic data, and do not measure the current rate of return on common equity. (R.D., p. 71). In any case, PSWC chose 11.75 percent as representative of the four cost rates of common equity results enumerated above. Moreover, according to PSWC, it is entitled to an 11.75 percent rate of return on common equity so that it can compete in the capital markets and maintain a reasonable credit quality. (PSWC Statement 4, p. 49).

The OTS relied solely on the DCF method to arrive at its 9.90 percent recommended cost rate of common equity. The OTS applied the DCF method to both the market data of PSC and to its barometer group of water utilities' stock which is actively traded. The OTS' barometer group consists of five publicly traded water utilities that have at least two sources of analysts' forecasts of earnings growth, and are not the announced subject of an acquisition.

Specifically, the OTS averaged the spot dividend yield and the 52-week average dividend yield of its barometer group to reach a 3.68 percent composite dividend yield. The OTS then added its 5.90 percent growth rate recommendation to the 3.68 percent dividend yield to reach a 9.58 percent DCF recommendation for its barometer group.

Next, the OTS averaged the spot dividend yield and the 52-week average dividend yield of PSC to reach a 2.41 percent composite dividend yield. The OTS then added its 7.80 percent growth rate recommendation to the 2.41 percent dividend yield to reach a 10.21 percent DCF recommendation for PSWC. The OTS proceeded to average the aforementioned 9.58 percent and 10.21 percent results to reach a 9.90 percent overall DCF recommendation which became OTS' updated common equity cost rate recommendation. (OTS Exhibit No. 1-S, Schedule 2).

The OCA relied primarily upon the DCF method to produce a common equity cost rate of 8.9 percent. The OCA afforded lesser weight to its RP result of

8.84 percent. The OCA then chose 9.0 percent as its common equity cost rate recommendation.

In its DCF analysis, the OCA averaged the 12-month composite dividend yield of 3.6 percent and the latest one-month average dividend yield of 3.5 percent to develop the DCF dividend yield of 3.55 percent for its barometer group. The OCA proceeded to employ the midpoint of its range of prospective Comparison Group growth rates of 5.00 percent to 5.50 percent. The resultant 5.25 percent is chosen by the OCA as a representative DCF growth rate. Next, in order to account for dividend growth in the period in which rates will be in effect, the OCA adjusted the 3.55 percent dividend yield by one-half the expected dividend growth rate of 5.25 percent or 2.63 percent. The OCA's DCF result is thereby 8.9 percent ($3.55 \text{ percent} \times 1.0263 + 5.25 \text{ percent}$). (OCA Statement No. 2, p. 21).

In its RP analysis, the OCA used the risk-free Treasury securities over a 24-month period to arrive at a rate of 5.5 percent as the risk-free rate. The OCA then derived a risk premium range from data for its barometer group, which ranged from 2.8 percent to 4.4 percent. Using the average of 3.34 percent, the OCA concluded that the indicated rate of return was 8.84 percent ($5.50\% + 3.34\%$).

The OCA subsequently recommended a 9.0 percent common equity rate of return based primarily upon the DCF method and, to a lesser extent, the RP method.

2. The ALJ's Recommendation

After considering the arguments of the Parties regarding the cost of common equity, the ALJ recommended that we permit PSWC the opportunity to earn a rate of return on common equity of 9.9 percent as recommended by the OTS. It is the ALJ's position that a 9.9 percent rate of return on common equity is amply supported by

the record. Moreover, the ALJ maintains that the OTS' DCF analysis was conducted in accordance with Commission precedent and appears reasonable. As such, the ALJ finds that in numerous cases we have recognized that while investors use many analytic methodologies such as RP, CAPM and CE, these types of analyses are inappropriate for use in rate-making because they are based on historic data, and do not directly measure the current rate of return on common equity. (R.D., p. 71).

Finally, the ALJ rejected PSWC's use of a leverage adjustment of 111 basis points for its DCF PSC analysis and 47 basis points for its DCF Water Group analysis. The ALJ reasoned that, although we accepted a 60 basis point adjustment in *Pa P.U.C. v. Pennsylvania-American Water Co.*, Docket No. R-00016339 (Opinion and Order entered January 25, 2002) (*PAWC 2002*), pp. 71-72, high financial risk is not a factor in this case. Moreover, the ALJ submitted that the financial risk adjustment of 60 basis points that we made in *PAWC 2002, supra* was far smaller than the 111 and 47 basis point adjustments that PSWC made for PSC and the Water Group, respectively. (R.D., p. 72).

3. Exceptions and Reply Exceptions

PSWC excepts to the ALJ's 9.9 percent common equity cost rate recommendation arguing that it falls midway between the 9.58 percent to 10.21 percent range of unadjusted DCF values developed by the OTS. In its Exceptions, PSWC avers that the DCF method should not be relied upon exclusively, to the exclusion of other generally accepted methods, to form a cost of common equity recommendation. PSWC argues that no one cost of equity model is so inherently precise that it can be relied upon to the exclusion of all other methods. PSWC supports the utilization of several common equity cost rate methodologies in rate case proceedings by reminding us that the Commission reviews the results of more than one method in evaluating the quarterly earnings reports submitted by Pennsylvania's jurisdictional utilities and in establishing

the cost of equity for Distribution System Improvement (DSIC) purposes. (Co. Exc., pp. 3-4).

PSWC further argues that extensive reliance on the DCF method is inappropriate because: (1) PSWC's stock is not publicly traded and, therefore, the DCF method provides no direct evidence as to PSWC's cost of equity capital; (2) due to the recent spate of mergers, the universe of comparable companies has shrunk to the point where the usefulness of any particular group must be questioned; and (3) PSWC alleges that when the DCF results are applied to an original cost rate base, its cost of equity capital will be understated when the market prices of the stocks used in the analysis substantially exceed book values.

PSWC notes that, in *PAWC 2002*, we adopted a financial risk adjustment virtually identical to the adjustment made in the instant proceeding. PSWC, therefore, excepts to the ALJ's rejection of the financial risk adjustment that it made in this rate case. PSWC alleges that it sought to correct the "mismatch" of market and book values by making a 47 basis point adjustment for its barometer group and a 111 basis point adjustment for PSC. PSWC indicates that the midpoint of this range (47 to 111 basis points) approximates 80 basis points that when added to the ALJ's unadjusted DCF findings of 9.9 percent would suggest an equity allowance of 10.7 percent. In *PAWC 2002, supra*, PSWC indicates that we adopted a 60 basis point financial risk adjustment to reconcile the greater financial risk inherent in PAWC's book value-derived capital structure ratios. (PSWC Exc., p. 6).

In their Reply Exceptions, both the OTS and the OCA rejoin that the Commission has relied upon the DCF analysis and informed judgment as the appropriate means of measuring the cost of common equity. *See, e.g., PAWC 2002; Pa. P.U.C. v. City of Lancaster*, 197 P.U.R.4th 156 (1999); *Pa. P.U.C. v. Consumers Pennsylvania Water Company-Roaring Creek Division (Roaring Creek)*, 87 Pa. P.U.C. 826 (1997);

Pa. P.U.C. PECO Energy Company, 87 Pa. P.U.C. 184, 212-213 (1997). (OTS R.Exc., pp. 15-16). The OTS indicates that PSWC's Exception stating that because the Commission reviews the results of more than one method in establishing the cost of equity for the DSIC, it is, therefore, necessary in a base rate case to do the same thing, is entirely without merit. It is the OTS' position that rate of return analysis in DSIC reports was never intended to be used as a substitute for the rate of return analysis in a base rate proceeding. According to the OTS, rate of return analysis in DSIC reports was developed to facilitate interim rate of return allowances on infrastructure improvements up to 5% of net plant between base rate proceedings. (OTS R.Exc., p. 16; OTS St. 1-SR, pp. 3-4).

In their Reply Exceptions, both the OTS and the OCA rejoin that the ALJ correctly rejected any proposed risk adjustment to PSWC's Cost of Common Equity. The OCA argues that PSWC's reliance on a single case, *PAWC 2002*, that is inapplicable to this issue, is unjustified. The OCA reasons that any inequity between market and book values is not necessarily significant. It is the OCA's position that a company with market value that exceeds book value and results in a market/book ratio of over 1.0, such as the case of PSWC, simply means that such a company is earning a return on equity in excess of its cost of equity. The OCA explains that a market/book ratio of 1.0 indicates that investors return requirements are being met. A market/book ratio greater than one, as is the case with PSC and its barometer group, indicates that PSWC's returns are more than sufficient to meet its investors' requirements. (OTS R.Exc., pp.17-18; OCA R.Exc., pp. 12-14.).

Therefore, the OTS and the OCA conclude that, not only should the DCF method be relied upon exclusively in the current base rate case, but also that no financial risk adjustment is necessary based on the market/book ratio of both PSC and its barometer group being greater than 1.0. The OTS and the OCA recommend that the associated Exceptions of PSWC be denied.

4. Disposition

Historically, we have primarily relied on the DCF methodology in arriving at our determination of the proper cost of common equity. We have, in many recent decisions, determined the cost of common equity primarily based upon the DCF method and informed judgment. See *Pa. PUC v. Philadelphia Suburban Water Co.*, 71 Pa. PUC 593, 623-32 (1989); *Pa. PUC v. Western Water Co.*, 67 Pa. PUC 529, 559-70 (1988); *Pa. PUC v. Roaring Creek Water Co.*, 150 PUR4th 449, 483-88 (1994); *Pa. PUC v. York Water Co.*, 75 Pa. PUC 134, 153-67 (1991); *Pa. PUC v. Equitable Gas Co.*, 73 Pa. PUC 345-46 (1990); *PAWC 2002*, p. 70. After a thorough examination of the record in this proceeding, we continue to find that the DCF method is the preferred method of analysis to determine a market based common equity cost rate.

We note that, in *Lower Paxton Township v. Pennsylvania Public Utility Commission*, 317 A.2d 917 (Pa. Cmwlth. 1974) (*Lower Paxton Township*), the Commonwealth Court recognized that this Commission may consider such factors that affect the cost of capital such as the utility's financial structure, credit standing, dividends, risks, regulatory lag, wasting assets and any peculiar features of the utility involved.

PSWC argues that a preliminary DCF calculation, which is computed using the market price of PSC's common stock and the average of the barometer group's market prices, should be adjusted to reconcile the divergence between market and book values. The indicated cost of common equity of 9.90 percent recommended by the ALJ, therefore, reflects the barometer group's average *market* capitalization, which includes a common equity ratio of 69.74 percent as opposed to its common equity ratio of 52.85 percent which reflects the group's book capitalization and significantly more financial risk. The corresponding common equity figures for PSC were 72.89 percent market and 46.95 percent book. PSWC properly determined that a financial risk