EXHIBIT

Exhibit No.:
Issue(s):

Witness/Type of Exhibit: Sponsoring Party:

Case No.:

Rate of Return Ailen/Rebuttal Public Counsel GR-2004-0209

REBUTTAL TESTIMONY

OF

TRAVIS ALLEN

FILED²

JUL 1 3 2004

Submitted on Behalf of the Office of the Public Counsel

Missouri Public Service Commission

MISSOURI GAS ENERGY

Case No. GR-2004-0209

May 24, 2004

BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

to implement a general rate increase for natural gas service.) Case No. GR-2004-0209
AFFIDAVIT OF T	RAVIS ALLEN
STATE OF MISSOURI)	
COUNTY OF COLE) ss	
Travis Allen, of lawful age and being first dul	y sworn, deposes and states:
1. My name is Travis Allen. I am a I Counsel.	Financial Analyst for the Office of the Public
2. Attached hereto and made a part her consisting of pages 1 through 25 and Revised Schedule TA-13 and Rebuttal Schedules TA-1 through	
3. I hereby swear and affirm that my startrue and correct to the best of my knowledge and be	tements contained in the attached testimony are lief.
T	ravis Allen
Subscribed and sworn to me this 24 th day of May 2	2004.
My Commission Evoluse Ian 31 2006	athleen Harrison otary Public

My commission expires January 31, 2006.

1	REBUTTAL TESTIMON	NY	
2	OF		
3	TRAVIS ALLEN		
4			
5	MISSOURI GAS EVERO	GY	
6	A DIVISION OF SOUTHERN UNIO	N COMPANY	
7	CASE NO. GR-2004-020)9	
8			•
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1		REBUTTAL TESTIMONY
2		OF
3		TRAVIS ALLEN
4		
5		MISSOURI GAS ENERGY
6		A DIVISION OF SOUTHERN UNION COMPANY
7		CASE NO. GR-2004-0209
8		
9		
10		INTRODUCTION
10		INTRODUCTION
11	Q.	PLEASE STATE YOUR NAME AND BUSINESS ADDRESS
12	A.	Travis Allen, 200 Madison St., P.O. Box 2230, Jefferson City Mo., 65102.
13 14	Q.	ARE YOU THE SAME TRAVIS ALLEN WHO FILED DIRECT TESTIMONY IN THIS PROCEEDING?
15	A.	Yes, I am.
16	Q.	WHAT IS THE PURPOSE OF THIS TESTIMONY?
17	A.	I will respond to the direct testimony of Missouri Gas Energy (MGE) witness John C.
18		Dunn, Staff witness David Murray, and make corrections to my direct testimony.
19		
20		Corrections to Allen Direct
21	Q.	PLEASE EXPLAIN THE CORRECTIONS TO YOUR DIRECT TESTIMONY AT
22		THIS TIME.
23	A.	I would like to make a correction to my recommended level of short-term debt to be
24		included in the capital structure of MGE. In my direct testimony, I inadvertently
25		subtracted MGE's end of the month construction work in progress values over the last
26		twelve months from Southern Union's corresponding average monthly short-term debt

- balance. What I meant to do was subtract Southern Union's end of the month
- 2 construction work in progress values over the last **thirteen** months from Southern
- 3 Union's corresponding average monthly short-term debt balance. The corrected short-
- 4 term debt balance included in my capital structure is \$254,198,507, which corresponds
- 5 to 7.01% of the capital structure.
- 6 Q. WHY IS IT APPROPRIATE TO USE THIRTEEN MONTHS?
- 7 A. In order to take into account all activity within a one-year period, you must look at the
- levels on the first day of the year (12/31/2002), the last day of the year (12/31/2003),
- 9 and all activity in between 01/31/2003 and 11/30/2003.
- 10 Q. DID CHANGING THE LEVEL OF SHORT-TERM DEBT HAVE ANY EFFECT ON
- 11 YOUR OVERALL RATE OF RETURN RECOMMENDATION?
- 12 A. Yes, it raised the low end of my recommended range by three basis points from 7.29%
- to 7.32% and raised the high end of my recommended range by three basis points from
- 7.38% to 7.41%.
- 15 Q. DID CHANGING THE LEVEL OF SHORT-TERM DEBT HAVE ANY OTHER
- 16 EFFECT ON YOUR ANALYSIS?
- 17 A. No it did not.
- 18 Q. HAVE YOU INCLUDED UPDATED COPIES OF THE SCHEDULES AFFECTED
- 19 BY THIS CHANGE?
- 20 A. Yes, I have attached the following schedules to this testimony: Revised Schedule TA-1,
- 21 Revised Schedule TA-4, and Revised Schedule TA-13.
- 22 Q. ARE THERE ANY OTHER CORRECTIONS TO YOUR DIRECT TESTIMONY
- 23 THAT YOU WOULD LIKE TO MAKE AT THIS TIME?
- 24 A. Yes, there is one more correction that I would like to make.
- 25 Q. WHAT IS THAT CORRECTION?
- 26 A. On page six of my direct testimony I incorrectly stated the DCF model as:

1 k = D/P + g. 2 I intended to state the model as follows: $k = D_1/P_0 + g.$ WHAT IS DI? Q. 5 D1 is defined as the expected dividend. Q. WHAT IS Po? 7 Po is defined as the current stock price. 8 DOES CHANGING THE STATED MODEL ON PAGE SIX OF YOUR DIRECT Q. 9 TESTIMONY HAVE ANY EFFECT ON YOUR ANALYSIS? 10 No, it does not. My analysis is consistent with the methodology defined by the correctly 11 stated DCF model. 12 Rebuttal of Dunn Direct 13 Q. WHAT ARE YOUR COMMENTS CONCERNING MR. DUNN'S DIRECT 14 **TESTIMONY?** 15 I will primarily comment on Mr. Dunn's proposed proxy group of companies, DCF 16 growth rate, capital structure, flotation cost adjustment, Missouri regulation adjustment, 17 and performance adjustment. 18 Proxy Group 19 Q WHAT ARE YOUR COMMENTS ON MR. DUNN'S PROPOSED PROXY GROUP 20 OF COMPANIES? 21 Α Mr. Dunn's proxy group consists of several companies that in actuality are not overly 22 comparable to MGE. 23 Q. WHICH COMPANIES IN MR. DUNN'S PROPOSED PROXY GROUP ARE NOT 24 OVERLY COMPARABLE TO MGE AND WHY?

1	A.	New Jersey Resources and UGI Corporation are not comparable to MGE due to the fac
2		that as of the time that Mr. Dunn filed his direct testimony in November, as well as
3		currently, these two companies had a substantial portion of their revenues coming from
4		non-natural gas operations. According to C.A. Turner's November 2003 Utility
5		Reports, New Jersey Resources had only 30% of its total revenue coming from natura
6		gas operations while UGI Corporation had only 24% of its total revenue coming from
7		natural gas operations.

- Q. ARE THERE ANY MORE COMPANIES THAT SHOULD BE EXCLUDED FROM
 MR. DUNN'S PROXY GROUP? IF YES, WHY SHOULD THEY BE EXCLUDED?
- 10 A. Yes, Laclede Group Incorporated and Atmos Energy Corporation should be excluded
 11 from Mr. Dunn's proxy companies. These two companies should be excluded because
 12 they both have Missouri-regulated operations which creates the issue of circularity.
- 13 Q PLEASE EXPLAIN THE CIRCULARITY ISSUE THAT YOU REFERED TO.
- 14 The rate of return that MGE is allowed to earn is determined by the Missouri Public 15 Service Commission. The Commissioners will make their decisions based on the 16 analysis of financial analysts. If the analysts use a company with Missouri-regulated 17 operations in their analysis, for example Company Y, the Commissioners will be 18 making their decisions on an analysis that includes financial data from Company Y. 19 Consequently, the Commissioners decision on MGE's rate of return is partly dependent 20 on an analysis of Company Y whose rate of return is dependent on the same 21 Commissioners that determine MGE's rate of return.
- Q. WHAT ARE YOUR COMMENTS ON MR. DUNN'S STATISTICAL ANALYSIS OF
 MGE's RISK LEVEL VERSUS THAT OF HIS PROXY GROUP?
- 24 A. Please see the rebuttal testimony of OPC's chief utility economist Barb Meisenheimer.
- Q. WHAT ARE YOUR COMMENTS REGARDING MR. DUNN'S GROWTH RATECALCULATION?

1	Α.	Mr	Dunn's	recommend	growth	rate	range	of	6%-7%	overstates	the	growth	rate
•	4	1711.	Dunn 3	I COOLILII TITOITA	EIO W (II	1 alc	101120	O1	U /U- / /U	Oversiones	1110	ZIOWIII	1410

- 2 expected by investors for his proxy group. On page 43 of his direct testimony, Mr.
- 3 Dunn calculated the Thomson Financial average expected growth rate in earnings for
- 4 his proxy group to be 4.9%. However, he completely disregards this growth rate and
- 5 states that he believes the expected growth rate for his proxy group should be in the 6%-
- 6 7% range.
- 7 Q. IS IT APPARENT FROM HIS TESTIMONY WHY MR. DUNN EXCLUDED THE
- 8 THOMSON FINANCIAL AVERAGE EXPECTED GROWTH RATE IN EARNINGS
- 9 FROM HIS DCF GROWTH RATE ANALYSIS?
- 10 A. No. In fact, it seems that his exclusion of this measure of investor-expected growth
- directly conflicts with statements made in his direct testimony. On page 34 of his
- testimony, witness Dunn states, "...growth in dividends and particularly regular
- increases in dividends will be replaced by overall growth in earnings as a significant
- component of the DCF calculation. This means that the best measure of future growth is
- not the pure growth in dividends, but rather the growth in the company overall,
- 16 particularly earnings."
- 17 Q. WHAT WOULD USING THE THOMSON FINANCIAL AVERAGE EXPECTED
- GROWTH RATE OF 4.9% DO TO THE DCF RETURN ON EQUITY
- 19 CALCULATION THAT MR. DUNN CALCULATED ON PAGE 50 OF HIS DIRECT
- 20 TESTIMONY?
- 21 A. It would result in the following expected return:
- 22 Expected Return = Dividend Yield + Growth
- Expected Return = 4.6% (dividend yield without flotation cost adjustment) + 4.9%
- Expected Return = 9.5%
- 25 Q. HOW DOES THOMSON FINANCIAL DEVELOP ITS EXPECTED GROWTH
- 26 RATES?

- 1 A. Thomson Financial develops its expected growth rates by contacting multiple analysts
- 2 that follow a company and getting their estimate of earnings growth over the next five
- 3 years. Then, Thomson Financial averages all of the different analyst's opinions to come
- 4 up with their reported expected future growth rate for that company.
- 5 Q. DID MR. DUNN GIVE ANY EXPLAINATION AS TO WHY HE SELECTED A
- 6 GROWTH RATE RANGE THAT WAS 110 TO 210 BASIS POINTS HIGHER THAN
- 7 THE AVERAGE THOMSON FINANCIAL EXPECTED GROWTH RATE
- 8 ILLUSTRATED ON PAGE 43 OF HIS DIRECT TESTIMONY?
- 9 A. No, he did not. This high growth range is simply Mr. Dunn's subjective opinion. Mr.
- Dunn simply discards the growth rate estimates provided by financial analysts that
- 11 cover these companies for a living and recommends a growth rate that is not supported
- by his own analysis.
- 13 Q. HOW DOES THE GROWTH RATE RANGE THAT YOU RECOMMENDED IN
- 14 YOUR DIRECT TESTIMONY COMPARE WITH THE THOMSON FINANCIAL
- 15 AVERAGE EXPECTED GROWTH RATE IN EARNINGS FOR HIS PROXY
- 16 GROUP?
- 17 A. My recommended growth rate range of 4.62% 4.94% is consistent with the Thomson
- Financial average shown on page 43 of Mr. Dunn's direct testimony.
- 19 Q. DID YOU DO AN EXPECTED GROWTH RATE ANALYSIS ON MR. DUNN'S
- 20 PROXY GROUP?
- 21 A. Yes, I did.
- 22 Q. PLEASE EXPLAIN YOUR ANALYSIS.
- 23 A. I analyzed the 09-19-2003 Value Line data that Mr. Dunn supplied the Office of the
- Public Counsel (OPC), in response to OPC data request 2022. Consistent with the
- 25 methodology in my direct testimony, I calculated the average historic "br+sv" growth
- rate, the average historic compound growth rate for earnings-per-share, dividends-per-

share, and book-value-per-share, as well as Value Line's average historic growth rate in earnings-per-share, dividends-per-share, and book-value-per-share. Each company's reported historic growth rate in earnings-per-share, dividends-per-share, and book-value-per-share was estimated by averaging Value Line's five and ten year estimates when both were available.

I also calculated the average projected "br+sv" growth rate and the average projected earnings-per-share growth rate, dividends-per-share growth rate, and book-value-per share growth rate. Each company's projected growth rate in earnings-per-share was calculated by averaging the Value Line estimate with the Thomson Financial estimate. Each company's projected growth rate in dividends-per-share and book-value-per-share was simply taken from Value Line's estimate.

- 12 Q. DO YOUR GROWTH RATE CALCULATIONS ENCOMPASS VIRTUALLY ALL
 13 OF THE GROWTH RATE MEASURES TYPICALLY ANALYZED BY COST OF
 14 CAPITAL WITNESSES?
- 15 A. Yes, my growth rate analysis (both historic and projected) was very thorough.
- 16 Q. DID YOU ATTACH A COPY OF YOUR ANALYSIS TO THIS TESTIMONY?
- 17 A. Yes, the analysis is attached and is labeled Rebuttal Schedule TA-1.
- 18 Q. WHAT DOES YOUR ANALYSIS SHOW?

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- A. After eliminating New Jersey Resources, UGI Corporation, Laclede Group, and Atmos
 Energy Corporation from Mr. Dunn's sample, for reasons discussed earlier, none of the
 average growth rates that I calculated even come close to supporting Mr. Dunn's 6%7% range. In fact, the overall average projected growth rate is merely 4.18%.
- 23 Q. WHAT ARE UTILITY FUND MANAGERS EXPECTING GROWTH TO BE?
- A. In the May 10, 2004 publishing of Electric Utility Week Bill Tilles, portfolio manager for The Kinetic Utility Funds, had the following to say;

1 2 3 4 5 6 7	Q.	"The current trend to "basics" business plans is a signal companies over-reached for growth rates of 8% using unregulated ventures
8		THE DATA THAT MR. DUNN PROVIDED THE OPC IN OPC DATA REQUEST
9		2022?
10	A.	Yes, after developing the projected "br+sv" growth rate, I followed the methodology I
11		developed in my direct testimony to determine what I would have estimated the cost of
12		equity to be if I had performed my analysis at the same time that Mr. Dunn performed
13		his.
14	Q.	WHAT WERE THE RESULTS OF YOUR ANALYSIS?
15	A.	I determined the low DCF cost of equity estimate to be 8.51% and the projected
16		"br+sv" cost of equity estimate to be 10.21%.
17	Q.	DID YOU ATTACH A COPY OF THIS ANALYSIS?
18	A.	Yes, I did. It is labeled Rebuttal Schedule TA-2.
19		Capital Structure
20	Q.	WHAT IS MR. DUNN'S PROPOSED CAPITAL STRUCTURE?
21	A.	In his Direct Testimony, Mr. Dunn proposes the use of a capital structure consisting of
22		46.13% long-term debt, 10.53% preferred equity, and 43.34% common equity.
23	Q.	HOW DID MR. DUNN DERIVE HIS RECOMMENDED CAPITAL STRUCTURE?
24	A.	Mr. Dunn derived his recommended capital structure from the pro-forma June 30, 2003
25		Southern Union (SUG), capital structure exclusive of the debt related to Panhandle
26		Eastern Pipeline Company (PEPL).
27	Q.	WHAT IS PANHANDLE EASTERN PIPLINE COMPANY?
28	A.	PEPL is an interstate pipeline company that Southern Union acquired on June 11, 2003.

- 1 Q. DID MR. DUNN GIVE ANY EXPLAINATION AS TO WHY HE EXCLUDED THE
- 2 PEPL DEBT FROM HIS CAPITAL STRUCTURE RECOMMENDATION?
- 3 A. In his direct testimony Mr. Dunn states, "Panhandle operates a line of business separate
- 4 from the distribution operations of Southern Union, in the form of a separate
- 5 corporation with separately issued and rated debt securities. Therefore, it would not be
- 6 appropriate to include Panhandle in developing a cost of capital for MGE."
- 7 Q. DO YOU AGREE WITH MR. DUNN'S EXCLUSION OF SHORT-TERM DEBT
- 8 FROM THE CAPITAL STRUCTURE?
- 9 A. No, I do not. I believe that short-term debt should be excluded from capital structure
- only if it represents less than 2% of the capital structure after construction work in
- progress has been subtracted. As shown in Revised Schedule TA-1 of my direct
- testimony, Southern Union's short-term debt, less construction work in progress,
- represents 7.01% of its capital structure. Therefore, I feel it should be included into the
- 14 capital structure.
- 15 Q. ARE THE ASSEST OF PEPL WHOLLY OWNED BY SUG?
- 16 A. Yes.
- 17 O. ARE A PORTION OF THOSE ASSETS FINANCED WITH CAPITAL ISSUED
- 18 DIRECTLY BY SUG?
- 19 A. Yes.
- 20 Q. DOES PANHANDLE EASTERN HAVE ITS OWN SEPARATELY PREPARED
- 21 FINANCIAL STATEMENTS?
- 22 A. Yes.
- 23 Q. WHAT IS THE LEVEL OF DEBT AND EQUITY SHOWN ON PEPL'S BALANCE
- 24 SHEET?
- 25 A. The September 30, 2003 capitalization of PEPL includes long-term debt of
- \$1,210,859,000 (including the current portion of long-term debt) and \$620,512,000 of

1		equity that represents the ownership of PEPL by SUG. This results in an equity-to-
2		capital ratio of 33.9% and a debt ratio of 66.1%.
3	Q.	DOES PEPL HAVE A HIGH LEVEL OF DEBT RELATIVE TO ITS TOTAL
4		CAPITAL?
5	A.	Yes. According to a prospectus issued by the Company on January 26, 2004 ¹ , PEPL has
6		substantial debt. According to the Company:
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29		 We have a significant amount of debt outstanding. We had total consolidated senior indebtedness of approximately \$1.211 billion outstanding as of September 23, 2003 compared to total capitalization (total debt plus owner's equity) of \$1.832 billionOur substantial debt could have important consequences to you. For example, it could: Limit our ability to borrow additional funds, including those needed to finance the LNG expansion we must complete to recover our investment and meet our contractual obligations; Increase the cost of any future debt that we incur; Reduce the cash flow from operations available for working capital, capital expenditures and other corporate purposes; Limit our flexibility in planning for, or reacting to, changes in our business and the industries in which we operate; Place us at a competitive disadvantage compared to our competitors that are less leveraged; Result in a downgrade of our ratings; or Increase our vulnerability to general adverse economic and industry conditions. Some of our debt obligations contain financial covenants related to debt-to-capital ratios and interest coverage ratios. Our failure to comply with any of these covenants could result in a default which, if not cured or waived, could result in the acceleration of our outstanding debt obligations or the inability to borrow under certain credit agreements.
30	Q.	DOES MR. DUNN SUGGEST IN HIS DIRECT TESTIMONY THAT A
31		HYPOTHETICAL CAPITAL STRUCTURE MAY BE APPROPRIATE FOR USE IN
32		THIS PROCEEDING?
33	A.	Yes, he suggests this on pages 28-29 of his direct testimony.
34	Q.	DO YOU BELIEVE THAT IF DONE APPROPRIATELY, A HYPOTHETICAL
35		CAPITAL STRUCTURE COULD PRODUCE JUST AND REASONABLE RATES?
36	A.	Yes, I do.

^{1.} Régistration Number 333-111178

1	Q.	HAS THE COMMISSION EVER AUTHORIZED THE USE OF A HYPOTHETICAL
2		CAPITAL STRUCTURE IN PREVIOUS RATE CASES?
3	A.	Yes, it has in case number ER-93-41. In re: St. Joesph Light and Power Company, the
4		Commission had the following to say:
5 6 7 8 9 10 11 12 13 14 15		"By adopting a hypothetical capital structure for SJLPC, the Commission is not indicating a preference for hypothetical capital structures in establishing revenue requirements for a company. The Commission, in other cases, has utilized the actual capital structure whenever the debt equity ratio has not been shown to be outside a zone of reasonableness. However, when as in this case, the actual capital structure is so entirely out of line with what the Commission considers to be a reasonable range, a hypothetical capital structure must be adopted to balance properly the interests of the shareholders and ratepayers. The Commission, therefore, determines that the hypothetical capital structure as proposed by Public Counsel should be adopted in this proceeding."
16	Q.	HAVE YOU DEVELOPED AN APPROPRIATE HYPOTHETICAL CAPITAL
17		STRUCTURE FOR MGE?
18	A.	Yes, I have. Although I firmly believe that the appropriate capital structure to be used in
19		this proceeding is Southern Union's consolidated capital structure, I decided to provide
20		the Commission with another option by calculating an appropriate hypothetical capital
21		structure.
22	Q.	PLEASE EXPLAIN HOW YOU DEVELOPED YOUR HYPOTHETICAL CAPITAL
23		STRUCTURE.
24	A.	In an effort to limit contention with the Company, I used Mr. Dunn's entire proxy group
25		sample of 15 companies and the September 19, 2003 Value Line data that he provided
26		the OPC in OPC data request 2022. I then calculated the average five-year common
27		equity ratio for each of the 15 companies. This left me with a column of 15 five-year
28		average common equity ratios. The mean of this column was then calculated and the
29		standard deviation of this column was added and subtracted from the mean to establish
30		a "zone of reasonableness" for common equity.
31	Q.	WHAT IS THE "ZONE OF REASONABLENESS" FOR COMMON EQUITY?

- 1 A. The "zone of reasonableness" is 37.60%-58.20%.
- 2 Q. PLEASE EXPLAIN THE SIGNIFICANCE OF THE RANGE THAT FALLS WITHIN
- 3 PLUS OR MINUS ONE STANDARD DEVIATION OF THE MEAN.
- A. The standard deviation of a set of (n) measurements can be defined as the square root of
- 5 the population variance which, in turn, is defined as the average of the squares of the
- deviations of the individual measurements about their mean. By definition,
- approximately 68 percent of the measurements in a data set fall within plus or minus
- 8 one standard deviation of the mean. Consequently, this range incorporates the majority
- 9 of the data points while still excluding the outliers or "unusual" data points included in
- the sample.
- 11 Q. WHAT COMMON EQUITY RATIO DID YOU SELECT FOR USE?
- 12 A. I selected the very bottom of the range, 37.60%.
- 13 Q. PLEASE EXPLAIN WHY YOU SELECTED THE VERY BOTTOM OF YOUR
- 14 COMMON EQUITY RANGE.
- 15 A. As I have stated before, I believe that the appropriate level of common equity to be used
- in this proceeding is Southern Union's consolidated level of common equity (i.e.
- 17 \$946,502,000.00, or 26.10%). Consequently, I feel that the very bottom of my
- hypothetical common equity range of 37.60% is more than accommodating to MGE.
- Additionally, if the Commission believes a hypothetical capital structure is appropriate
- for setting rates in this case, there is no justification for setting the equity levels higher
- 21 than the lower end of the zone of reasonableness. The Commission should recognize
- that adjusting the actual equity levels to the lower end of the zone of reasonableness
- will raise the overall revenue requirement. Adjusting the equity levels higher than the
- lower end will simply serve to increase the overall revenue requirement and even
- 25 greater amount.

26

Q. WHAT WAS THE NEXT STEP IN YOUR ANALYSIS?

ì	A.	I added the percentage of preferred stock as calculated on Revised Schedule TA-1 (i.e.
2		6.17%), to the percentage of common equity to determine what percentage of the total
3		capital structure was left.
4	Q.	HOW DID YOU DETERMINE THE LEVEL OF LONG-TERM DEBT?
5	A.	The unallocated portion was assigned to long-term debt (100% less $37.6\% +6.17\% =$
6		56.23%).
7	Q.	WAS THAT THE END OF YOUR ANALYSIS?
8	A.	No it was not. I then had to add back the percentage of short-term debt calculated on
9		Revised Schedule TA-1, (i.e. 7.01%).
10	Q.	HOW DID YOU DO THIS?
11	A.	I included the existing short-term debt of SUG (less CWIP) and then made pro rata
12		reductions to the other capital structure components.
13	Q.	PLEASE SUMMARIZE YOUR RECOMMENDED HYPOTHETICAL CAPITAL
14		STRUCTURE.
15	A.	My hypothetical capital structure is as follows:
16		Common Equity 34.96%
17		Preferred Equity 5.74%
18		Long-Term Debt 52.29%
19		Short-Term Debt 7.01%
20		100.00%.
21	Q.	HOW DOES THIS HYPOTHETICAL CAPITAL STRUCTURE COMPARE TO MR.
22		DUNN'S COMPARATIVE COMPANY PROFILE?
23	A.	As shown on Schedule JCD-2 of his direct testimony, the percentage of long-term debt
24		that I have calculated, 52.29%, is marginally smaller than the figure that he calculated,
25		52.80%. As a result, the level of financial risk associated with long-term debt is similar
26		when comparing Mr. Dunn's capital structure and my hypothetical capital structure.

- 1 With respect to common equity, Mr. Dunn's recommendation of 43.34% is 838 basis
- 2 points higher than that suggested by my hypothetical capital structure.
- 3 Q. DO YOU BELIEVE THAT USING THE HYPOTHETICAL CAPITAL STRUCTURE
- 4 THAT YOU HAVE CALCULATED WOULD PRODUCE JUST AND
- 5 REASONABLE RATES?
- 6 A. Yes, I do. However, I once again want to reiterate that I firmly believe the most
- 7 appropriate capital structure to use in this case is Southern Union's consolidated capital
- 8 structure. However, if the Commission decides not to use Southern Union's
- 9 consolidated capital structure, this hypothetical capital structure is much more
- reasonable than the capital structure employed by Mr. Dunn in his direct testimony.

11 <u>Cost Calculations</u>

- 12 Q. WHAT WOULD THE OVERALL RATE OF RETURN BE IF YOUR
- 13 CALCULATED HYPOTHETICAL CAPITAL STRUCTURE WAS USED ALONG
- 14 WITH THE PREFERRED EQUITY, AND LONG-TERM DEBT COST RATES
- 15 THAT MR. DUNN ILLUSTRATES ON SCHEDULE JCD-11 OF HIS DIRECT
- 16 TESTIMONY, THE SHORT-TERM DEBT COST RATE THAT YOU ILLUSTRATE
- 17 ON YOUR REVISED SCHEDULE TA-4, AND THE RETURN ON EQUITY
- 18 ILLUSTRATED ON PAGE 5, LINE 24 OF THIS DOCUMENT?
- 19 A. The rate of return would be as follow:
- $\|20\|$ ROR = (.3496*9.5%) + (.0574*7.863%) + (.5229*7.348%) + (.0701*1.93%)
- ROR = 7.75%
- 22 Q. WHAT WOULD THE RATE OF RETURN BE IF YOUR CALCULATED
- 23 HYPOTHETICAL CAPITAL STRUCTURE WAS USED ALONG WITH THE COST
- 24 RATES THAT YOU SHOW ON REVISED SCHEDULE TA-13?
- 25 A. The rate of return would be as follows:

26

```
1
           ROE = 9.01\%:
2
                  ROR = (.3496*9.01\%) + (.0574*7.758\%) + (.5229*7.17\%) + (.0701*1.93\%)
3
                  ROR = 7.49\%
            ROE = 9.34\%:
5
                  ROR = (.3496*9.34\%) + (.0574*7.758\%) + (.5229*7.17\%) + (.0701*1.93\%)
6
                  ROR = 7.61\%
7
            WHAT WOULD THE RATE OF RETURN BE IF YOUR CALCULATED
     Q.
8
            HYPOTHETICAL CAPITAL STRUCTURE WAS USED ALONG WITH THE COST
9
            RATES FOR PREFERRED EQUITY, LONG-TERM DEBT, AND SHORT-TERM
10
            DEBT THAT YOU SHOW ON REVISED SCHEDULE TA-13 AND THE RETURN
11
            ON EQUITY RANGE THAT YOU REFERRED TO ON PAGE 8, LINES 15 & 16 OF
12
            THIS DOCUMENT?
13
            The rate of return would be as follows:
14
            \underline{ROE} = 8.51\%:
15
                   ROR = (.3496*8.51\%) + (.0574*7.758\%) + (.5229*7.17\%) + (.0701*1.93\%)
16
                   ROR = 7.32\%
17
18
            ROE = 10.21\%:
19
                   ROR = (.3496*10.21\%) + (.0574*7.758\%) + (.5229*7.17\%) + (.0701*1.93\%)
20
                   ROR = 7.91\%
21
                                       Flotation Costs
            WHAT ARE YOUR COMMENTS REGARDING MR. DUNN'S FLOTATION COST
22
     Q.
23
            ADJUSTMENT?
24
            I do not believe a flotation cost adjustment is necessary. A flotation cost adjustment
     A.
25
            does nothing more than needlessly inflate Mr. Dunn's cost of equity estimate.
```

Q.	PLEASE EXPLAIN WHY YOU BELIEVE A FLOTATION COST ADJUSTMENT IS
	NOT NECESSARY.

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A.

The majority of issuance "costs" incurred in any public offering of common stock can be classified as either underwriters' fees or miscellaneous out-of-pocket expenses such as legal, printing, and postage charges. While underwriters' fees, by far, make up the largest part of total issuance "costs" they are not an actual out-of-pocket expense for a company. On a per share basis, they represent the difference between the price the underwriter receives from the public and the price the utility receives from the underwriter.

A common, but misguided, argument promulgated by many rate of return analysts who support the flotation cost adjustment, is that underwriters' fees should be recovered by a utility because the utility is obligated to investors for the gross proceeds, but only receive the net proceeds.

This, however, is a curious argument that directly conflicts with both capital market efficiency and basic common sense. The purchasers of a new stock issuance are quite aware of the transaction costs involved in the sale of that stock. That is, they are aware that a certain portion of the sale price goes to the underwriter, not the utility. If the stock price, which includes underwrites' fees, did not meet the investors' risk/return requirements, they simply would not purchase it. This, in turn, would drive the stock price downward to the point where the expected return equaled the required return. Therefore, when a new stock is sold, any incremental risk/return expectations resulting from underwriters' fees are inherently included in the stock price employed in a market-based equity return estimate. Consequently, no additional allowance for their recovery is necessary.

ARE THERE ANY OTHER MISGUIDED ARGUMENTS COMMONLY PUT FORTH BY ANALYST IN SUPPORT OF FLOTATION COSTS ADJUSTMENTS

Yes, it is often argued that a flotation cost adjustment is necessary to prevent a reduction in stockholder wealth that would result if additional shares were issued at a price below book value. However, Southern Union Company's share price is well above book value, (MGE is a division of SUG). According to the April 2004 C.A. Turner Utility Reports, SUG has a market-to-book value ratio of 1.11x. Consequently, current shareholders would realize an increase in the per share book value of their investment, not a dilution. As such, there is no need to compensate for a hypothetical dilution of book value that would result from issuing additional shares at a price below book value, making a flotation cost adjustment unnecessary.

Risk Adjustments

- 11 Q. WHAT ARE YOUR COMMENTS REGARDING MR. DUNN'S ASSERTION THAT

 12 SINCE MGE IS REGULATED IN THE STATE OF MISSOURI, IT IS EXPOSED TO

 13 MORE RISK THAN HIS COMPARABLE COMPANIES?
- A. Mr. Dunn claims that the rates authorized for MGE by the Missouri Public Service
 Commission have not enabled it a fair opportunity to achieve its authorized rate of
 return. Therefore, he claims that MGE is riskier than his comparable companies and
 makes an upward adjustment to his calculated return on equity to compensate MGE for
- 19 Q. DO YOU AGREE WITH THIS UPWARD ADJUSTMENT?

this elevated level of risk.

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- A. No, I do not. An upward adjustment to Mr. Dunn's calculated return on equity is not necessary.
- 22 Q. WHY IS THIS UPWARD ADJUSTMENT NOT NECESSARY?
- A. The reason that this upward adjustment is not necessary is because many of the companies in Mr. Dunn's proxy group have not earned their authorized rates of return over various periods as well. Consequently, that risk (the risk of earned return volatility around the authorized return) is already embedded in the DCF calculation for the proxy

]	l	companies.	The upward	adjustment	proposed b	y Mr.]	Dunn '	would do:	nothing mo	ore than

- 2 fictitiously inflate his return on equity recommendation.
- 3 Q. WHAT ARE YOUR COMMENTS REGARDING MR. DUNN'S ASSERTION THAT
- 4 SINCE MGE HAS LOWER DEPRECIATION RATES ON AVERAGE THAN HIS
- 5 COMPARATIVE COMPANIES, IT WILL BE LESS LIKELY TO HAVE A
- 6 REASONABLE OPPORTUNITY TO REALIZE A FULL RETURN OF CAPITAL?
- 7 A. This statement is false. Missouri public utility regulation is designed to allow a
- 8 company the opportunity to recover all of its capital investment that is attributable to
- 9 Missouri ratepayers. Whether or not a utility has a higher or lower average depreciation
- rate is irrelevant. Rates are set so that the utility is still being provided the opportunity
- to recover all reasonable and prudent capital investment.
- 12 Q. IF MR. DUNN'S ASSERTION ABOUT MGE'S DEPRECIATION RATES BEING
- 13 LOWER ON AVERAGE THAN THE COMPANIES USED IN HIS PROXY GROUP
- 14 IS CORRECT, WHAT EFFECT WOULD THAT HAVE ON MGE'S RATE OF
- 15 RETURN?
- 16 A. MGE will simply have a higher net plant value built into its rate base and will therefore
- have larger earnings in absolute dollars due to this larger rate base.
- 18 Q. WHAT ARE YOUR COMMENTS REGARDING MR. DUNN'S ASSERTION THAT
- 19 SMALL FIRMS ARE RISKIER THAN LARGE FIRMS AND THUS REQUIRE A
- 20 HIGHER RETURN ON EQUITY?
- A. The total capitalization of Southern Union is not materially different from Mr. Dunn's
- proxy group. In fact, only one of his proxy companies has a total market capitalization
- greater than Southern Union's. However, if there were a material difference in the size
- Mr. Dunn's proxy companies as opposed to Southern Union, it still would not warrant
- any upward adjustment to required return. This is because the risk associated with

- 1 company size is already embedded into the stock prices of Mr. Dunn's proxy companies
 2 and is therefore already embedded into the required return.
- Q. DO YOU AGREE WITH MR. DUNN'S ASSERTION THAT ALL THE RISK OF A
 COMPANY SHORT OF EXTREME JEOPARDY IS BORN BY EQUITY
- 5 INVESTORS?
- 6 A. No, I do not. An increase in the risk profile of a company directly impacts the price of a
- 7 company's publicly-traded and private debt. To the extent that the risk of financial
- 8 hardship increases, investors will place a lower value on the company's debt issuances
- 9 and the price of that debt will decline. Consequently, current debt holders will incur a
- decline in the market value of their holdings. This is absolutely a risk for debt investors.
- 11 Q. DO YOU AGREE WITH MR. DUNN'S ASSERTION THAT QUESTIONABLE
- 12 ENERGY TRADING PRACTICES AND UNSUCCESSFUL DIVERSIFICATION
- 13 INTO NON-REGULATED ACTIVITES BY SOME UTILITY COMPANIES HAS
- 14 INCREASED THE OVERALL INDUSTRY RISK PROFLIE AND THUS HAS
- 15 INCREASED SOUTHERN UNION'S RISK PROFILE?
- 16 A. No I do not. On page 19 of his direct testimony, Mr. Dunn states that Southern Union
- has not been involved in either questionable energy trading practices or unsuccessful
- diversification into non-regulated activities. Consequently, Mr. Dunn must think that
- investors can not distinguish between companies that are engaged in these risk
- 20 increasing activities and those that are not and thus require a higher return from all
- utilities as a result of the risk increasing actions of a few. This is simply not the case.
- Consequently, an increased equity return due to this fictitious increase in Southern
- Union's risk profile is not merited.
- 24 Q. DO YOU AGREE WITH MR. DUNN'S ASSERTION THAT MGE'S RATE OF
- 25 RETURN SHOULD BE INCREASED BY 25 BASIS POINTS IN ORDER TO
- 26 REWARD MANAGEMENT EFFICIENCY?

- 1 A. No, I do not. Public Counsel witness Kim Bolin documents in her rebuttal testimony
- why MGE should not be given a 25 basis point management efficiency increase in its
- 3 rate of return.
- 4 Q. DID THE MISSOURI PUBLIC SERVICE COMMISSION APPROVE AN
- 5 INFRASTRUCTURE SYSTEM REPLACEMENT SURCHARE (ISRS) FOR MGE?
- 6 A. Yes, it did.
- 7 Q. DOES MR. DUNN'S ANALYSIS CAPTURE THE EFFECT THAT THE
- 8 COMMISSION APPROVED ISRS HAS ON MGE'S RISK LEVEL?
- 9 A. No it does not.
- 10 Q. DOES YOUR ANALYSIS CAPTURE THE EFFECT THAT THE COMMISSION
- 11 APPROVED ISRS HAS ON MGE'S RISK LEVEL?
- 12 A. No it does not.
- 13 Q. WHY DON'T YOUR RESPECTIVE ANALYSES CAPTURE THE EFFECT THAT
- THE COMMISSION APPROVED ISRS HAS ON MGE'S RISK LEVEL?
- 15 A. The reason that they do not capture MGE's ISRS risk reduction is because none of the
- companies in either Mr. Dunn's or my proxy groups have an ISRS. In fact, MGE is
- currently the only natural gas company that has an ISRS.
- 18 Q. DOES THIS MEAN THAT MR. DUNN'S RETURN ON EQUITY
- 19 RECOMMENDATION AND YOUR RETURN ON EQUITY RECOMMENDATION
- 20 IS OVERSTATED?
- 21 A. Not necessarily. Although I do believe that Mr. Dunn's return on equity and rate of
- return recommendations are greatly exaggerated, for reasons discussed above, I don't
- think that it is because of the ISRS. The reason for this is that both Mr. Dunn and I have
- 24 included companies in our proxy groups that, unlike MGE, have some form of weather
- 25 mitigation that reduces their risk. Consequently, this has an offsetting effect on the
- inability to capture the risk-reducing ISRS effect.

1	Q.	IS MGE ASKING FOR A WEATHER MITIGATION RATE DESIGN?
2	A.	Yes.
3	Q.	IF THE COMMISSION AUTHORIZES A WEATHER MITIGATION RATE
4		DESIGN FOR MGE, WHAT WOULD THAT DO TO MR. DUNN'S AND YOUR
5		RETURN ON EQUITY AND RATE OF RETURN RECOMMENDATIONS?
6	A.	If the Commission decides to authorize a weather mitigation rate design for MGE, then
7		a downward adjustment to both Mr. Dunn's and my return on equity and rate of return
8		recommendations would be merited.
9	Q.	AS OF NOW ARE YOU STILL RECOMMENDING A RATE OF RETURN IN THE
10		RANGE OF 7.32%-7.41%?
11	A.	Yes I am. However, I am most comfortable with the lower end of this range.
12		Conflict of Interest
13	Q.	DOES MR. DUNN HAVE MORE THAN JUST A PROFESSIONAL INTEREST IN
14		SOUTHERN UNION'S RETURN ON EQUITY?
15	A.	Yes, he does. Mr. Dunn disclosed in his May 6, 2004 deposition that he owns 1000
16		shares of Southern Union stock. This, in my opinion, is a major conflict of interest that
17		leads me to question the objectivity of his analysis.
18	Q.	WHAT DOES MR. DUNN'S INVESTMENT IN SOUTHERN UNION SAY ABOUT
19		THE COMPANY'S ARGUMENT THAT THEIR EQUITY IS UNATTRACTIVE TO
20		INVESTORS?
21	A.	On page 58 of his direct testimony, Mr. Dunn refers to Michael R. Noack's direct
22		testimony concerning MGE's inability to meet its authorized rate of return. The
23		argument that the Company has put forth is that its inability to achieve its authorized
24		rate of return has made the Company look unattractive to investors (i.e. its risk/return
25		trade-off is unattractive). If this were really the case, why would an educated investo

1		like Mr. Dunn invest in Southern Union when he could get a more attractive risk/return
2		relationship in some other investment?
3		Rebuttal of Murray Direct
4	Q.	WHAT ARE YOUR COMMENTS CONCERNING MR. MURRAY'S DIRECT
5.		TESTIMONY?
6	A.	I will comment on two issues, embedded cost of long-term debt and the level of short-
7		term debt.
8		Long-Term Debt
9	Q.	HOW DID MR. MURRAY CALCULATE SOUTHERN UNION'S EMBEDDED
10		COST OF LONG-TERM DEBT?
11	A.	In Schedule 10 of his direct testimony, Mr. Murray illustrates how he calculated his
12		recommended 6.383% embedded cost rate for Southern Union's long-term debt. This
13		cost rate is inclusive of not only Southern Union Company's long-term debt issues, but
14		also Panhandle Eastern Pipe Line Company's non-recourse long-term debt issues.
15	Q.	PLEASE EXPLAIN WHAT NON-RECOUSE DEBT IS.
16	A.	Non-recourse debt is debt that has restrictions on the assets that the holders of the debt
17		can seize in the case of default. In Panhandle's case, the non-recourse nature of the debt
18		prevents Panhandle debt holders from seizing Southern Union's assets in the event of
19		default on the debt.
20	Q.	DO YOU AGREE WITH MR. MURRAY'S CALCULATED COST RATE?
21	A.	No. I do not think that Mr. Murray should have included the PEPL cost of debt into his
22		calculation.
23	Q	WHAT ARE YOUR COMMENTS ON MR. MURRAY'S RECOMMENDED
24		CAPITAL STRUCTURE?
25	A.	As shown on Schedule 9 of his direct testimony, Mr. Murray calculated the level of
26		preferred stock, long-term debt, and short-term debt as of December 31, 2003.

- However, although Mr. Murray claims that he calculated the common stock equity as of
 December 31, 2003, in actuality, his calculated common stock equity of \$920,418,000
 corresponds to Southern Union's June 30, 2003 consolidated statement of
 capitalization. Southern Union's actual level of common stock equity as of December
 31, 2003 is \$946,502,000. This is a fundamental mismatch that artificially decreases
 Mr. Murray's rate of return recommendation.
- Q. IS MR. MURRAY AWARE OF THE FACT THAT HE USED THE LEVEL OF
 COMMON STOCK EQUITY THAT CORRESPONDS TO SOUTHERN UNION'S
 JUNE 30, 2003 CONSOLIDATED STATEMENT OF CAPITALIZATION?
- 10 A. Yes, he is. In his May 4, 2004 deposition, Mr. Murray indicated that he was aware of
 11 the mismatch and planned on correcting his common equity estimate (i.e. using the
 12 \$946,502,000 December 31, 2003 value) in his rebuttal testimony.

13 Short-Term Debt

- 14 Q. DO YOU AGREE WITH THE WAY THAT MR. MURRAY CALCULATED THE
 15 LEVEL OF SHORT-TERM DEBT HE USED IN HIS ANALYSIS?
- 16 A. No, Mr. Murray simply subtracted Southern Union's construction work in progress as 17 of December 31, 2003 from the average amount of short-term debt that Southern Union 18 had outstanding in December of 2003. I do not feel that this snapshot of debt levels at a 19 specific point in time provides an accurate account of how Southern Union consistently 20 utilizes short-term debt. While Mr. Murray's level of short-term debt does not differ 21 drastically from mine in this case, I think that it is important to explain why 22 theoretically my approach to calculating the level of short-term debt is more 23 appropriate.
- Q. WHY DO YOU BELIEVE YOUR APPROACH IS MORE APPROPRIATE?
- As illustrated on Revised Schedule TA-4 of my direct testimony, I believe that a better way of calculating the level of short-term debt is to take Southern Union's average

1	monthly short-term debt balance over the last thirteen months and subtract from that
2	Southern Union's corresponding end of month balances for construction work in
3	progress. The resulting values are then summed up and divided by thirteen to obtain the
4	average level of short-term debt less construction work in progress over the past year. I
5	feel that this approach, as opposed to Mr. Murray's snapshot approach, gives a much
6	better picture of how a company utilizes short-term debt. If the Commission were to
7	adopt this snapshot approach as the correct way of calculating the level of short-term
8	debt, we would likely see companies specifically manipulating the use of short-term
9	debt and test year recommendations in order to keep short-term debt out of the capital
0	structure calculations.

- 11 Q. DOES THIS CONCLUDE YOUR TESTIMONY?
- 12 A. Yes, it does.

13

Capital Structure - December 31, 2003

	<u>Amount</u>	<u>Percent</u>
Common Stock Equity	\$ 946,502,000.00	26.10%
Preferred Stock	\$ 223,828,509.00	6.17%
Long Term Debt	\$ 2,201,221,491.00	60.71%
Short Term Debt	\$ 254,198,507.00	<u>7.01%</u>
	\$ 3,625,750,507.00	100.00%

Sources: Company response to OPC DR2001 and DR2005

Short Term Debt as of December 31, 2003

	Wtd. Avg. Effective Interest Rate		S.T. Debt EOM Balance	<u>CWIP</u>	Balance Less CWIP	<u>Weight</u>	Weighted <u>Cost</u>
12/31/2002	2.34%	\$	288,600,000.00	\$ 26,756,976.00	\$ 261,843,024.00	7.92%	0.185%
1/31/2003	2.08%	\$	272,950,000.00	\$ 16,974,665.00	\$ 255,975,335.00	7.75%	0.161%
2/28/2003	1.89%	\$	255,179,030.00	\$ 19,744,941.00	\$ 235,434,089.00	7.12%	0.135%
3/31/2003	2.01%	\$	232,129,030.00	\$ 20,702,031.00	\$ 211,426,999.00	6.40%	0.129%
4/30/2003	1.91%	\$	217,550,000.00	\$ 23,348,626.00	\$ 194,201,374.00	5.88%	0.112%
5/31/2003	2.00%	\$	260,150,000.00	\$ 26,350,395.00	\$ 233,799,605.00	7.08%	0.142%
6/30/2003	1.95%	\$	273,250,000.00	\$ 14,848,253.00	\$ 258,401,747.00	7.82%	0.152%
7/31/2003	1.97%	\$	282,750,000.00	\$ 11,066,371.00	\$ 271,683,629.00	8.22%	0.162%
8/31/2003	2.29%	\$	314,250,000.00	\$ 13,997,674.00	\$ 300,252,326.00	9.09%	0.208%
9/30/2003	1.92%	\$	319,150,000.00	\$ 16,430,578.00	\$ 302,719,422.00	9.16%	0.176%
10/31/2003	1.34%	\$	273,950,000.00	\$ 21,244,462.00	\$ 252,705,538.00	7.65%	0.102%
11/30/2003	1.64%	\$	283,825,000.00	\$ 24,287,098.00	\$ 259,537,902.00	7.85%	. 0.129%
12/31/2003	1.71%	\$	295,175,000.00	\$ 28,575,399.00	\$ 266,599,601.00	<u>8.07%</u>	<u>0.138%</u>
		- \$	3,568,908,060.00		\$ 3,304,580,591.00	100.00%	1.93%

Average Monthly Level less CWIP:

\$ 254,198.507.00

Weighted Average Interest Rate:

1.93%

Company Response to OPC DR2005

Weighted Average Cost of Capital

eighted st Rate
1% ROE
2.35%
0.48%
1.35%
).14% .32%
eighted est Rate 4% ROE
2.44%
2.44% 0.48%

<u>7.01%</u> 100.00%

\$ 254,198,507.00 \$ 3,625,750,507.00

Pre-Tax Interest Coverage

Short Term Debt

Tax Factor = 1.6136

	Weighted <u>Cost</u>	Pre-Tax Weighted <u>Cost</u>		Weighted <u>Cost</u>	Pre-Tax Weighted <u>Cost</u>
Common Stock Equity			Common Stock Equity		
(Based on 9.01% ROE)	2.35%	3.79%	(Based on 9.34% ROE)	2.44%	3.94%
Preferred Stock	0.48%	0.77%	Preferred Stock	0.48%	0.77%
Long Term Debt	4.35%	7.02%	Long Term Debt	4.35%	7.02%
Short Term Debt	0.14%	0.23%	Short Term Debt	0.14%	0.23%
Total	7.32%	11.81%	Total	7.41%	11.96%
Pre-Tax Weighted Cost	11.81%		Pre-Tax Weighted Cost	11.96%	
Cost of Debt	4.49%		Cost of Debt	4.49%	
Pre-Tax Interest Coverage	2.63)	Pre-Tax Interest Coverage	2.66	

0.14% 7.41%

1.930%

Summary - Discounted Cash Flow Growth for Comparable Companies

Historic Growth		Retention	Cor	mpound Grov	vth	Value Line			
	Company	<u>br+sv</u>	<u>EPS</u>	<u>DPS</u>	<u>BVPS</u>	EP\$	<u>DPS</u>	<u>BVPS</u>	
	AGL Resources	3.37%	2.52%	0.37%	2.72%	3.25%	0.50%	2.50%	
	Cascade Nat'l Gas	3.30%	13,48%	1.76%	1.38%	8.25%	1.25%	1.75%	
	Keyspan Corp.	10.54%	1.90%	4.57%	2.74%	3.00%	4.00%	3.25%	
	NUI Corp.	2.22%	1.60%	1.42%	3.81%	2.25%	-1.50%	3.75%	
	Nicor, Inc.	5.86%	4.97%	5.63%	2.04%	4.75%	4.75%	3.25%	
	N.W. Nat'l Gas	3.93%	-0.19%	0.88%	3.80%	5.50%	1.00%	4.00%	
	Peoples Energy	3.73%	2.81%	2.13%	2.98%	3.25%	2.00%	3.00%	
	Piedmont Nat'l	4.26%	3.56%	5.74%	5.61%	4.50%	5.75%	5.75%	
	South Jersey Inds.	4.46%	6.34%	0.59%	2.56%	5.75%	0.50%	2.25%	
	Southwest Gas	3.47%	25.74%	0.00%	3.95%	10.00%	-4.00%	2.00%	
	WGL Holdings	4.25%	-1.36%	1.91%	4.37%	0.75%	2.00%	4.50%	
	Comparables Average	4.49%	5.58%	2.27%	3.27%	4.66%	1.48%	3.27%	
Projected Growth		Retention		Value Line					
	Company	<u>br+sv</u>	<u>EPS</u>	DPS	<u>BVPS</u>				
	AGL Resources	6.10%	6.75%	0%	6%				
	Cascade Nat'l Gas	6.16%	4.25%	0.50%	5.00%				
	Keyspan Corp.	5.19%	6.75%	0.50%	5.00%				
	NUI Corp.	5.34%	4.50%	0.50%	0.00%				
	Nicor, Inc.	6.16%	3.75%	3.50%	4.00%				
	N.W. Nat'i Gas	4.87%	5.00%	1.00%	4.00%				
	Peoples Energy	3.47%	4.50%	1.50%	6.50%				
	Piedmont Nat'l	5.32%	6.25%	4.00%	5.50%				
•	South Jersey Inds.	6.61%	4.75%	1.50%	7.00%				
	Southwest Gas	5.63%	7.50%	0.00%	4.50%				
•	WGL Holdings	5.13%	5.50%	1.00%	3.00%	Average F	Projected G	cowth	
	Average	5.45%	5.41%	1.27%	4.59%	Average	4.18%	ovicii	
		Overall			Hi/Low				
	Company	Average	Low	High	Average	Median			
	AGL Resources	3.10%	0.00%	6.75%	0.03375	2.72%			
	. Cascade Nat'l Gas	4.28%	0.50%	13.48%	0.0699	3.30%			
	Keyspan Corp.	4.31%	0.50%	10.54%	0.0552	4.00%			
	NUI Corp.	2.17%	0.00%	5.34%	0.0267	2.22%			
	Nicor, Inc.	4.42%	2.04%	6.16%	0.041	4.75%			
	N.W. Nat'l Gas	3.07%	0.00%	5.50%	0.0275	3.93%			
	Peoples Energy		1.50%	6.50%	0.0213	3.00%			
	Piedmont Nat'l		3.56%	6.25%	0.04905	5.50%			
	South Jersey Inds.		0.50%	7.00%	0.0375	4.46%			
	Southwest Gas		0.00%	25.74%	0.0373	3.95%			
	WGL Holdings		0.00%	5.50%	0.0275	3.00%			
	Average	3.80%	0.78%	8.98%	0.0488	3.71%			

Note: Negative growth rates are not included in averages and are excluded from determination of "Low"

Source: Value Line Investment Survey; February 2004 C.A. Turner Utility Reports; Thomson Financial

Discounted Cash Flow Growth Parameters AGL RESOURCES

	Historic Growth	Compound	Growth			Retention Growth	<u>.</u>			
1	Historic Data 1995	<u>EPS</u> 1.33	DPS 1.04	<u>BVPS</u> 10.12	Rentention Ratio (b) 0.226	Equity Return {r} 12.50%	Growth {b*r} 2.83%			
2	1996	1.37	1.06	10.56	0.212	12.10%	2.56%			
3	1997	1.37	1.08	10.99	0.234	11.30%	2.64%	56.6		
4	1998	1.41	1.08	11.42	-0.187	12.30%	-2.30%			
5	1999	0.91	1.08	11.59	· 0.163	7.90%	1.29%			
6	2000	1.29	1.08	11.5	0.280	11.50%	3.22%			
7	2001	1.5	1.08	12.19	0.407	12.30%	5.00%			
8	2002	1.82	1.08	12.52	0.407	14.50%	5.90%	56.7		
9										
10	95-97 Average	1.36	1.06	10.56		Avg. Internal				
11	00-02 Average	1.54	1.08	12.07		Growth (b*r):	3.35%			
12	J -					,			s	v
13						ADD: External			0.04%	0.5192
14						Growth (sv):	0.0183%			
15	Compound Growth	2.52%	0.37%	2.72%						
16						Historic				
17						"br+sv" Growth	3.37%			
18										
19										
20	Value Line	EPS	DPS	BVPS						
21	Historic Growth	3.25%	0.50%	2.50%						
22	(Avg. of 5 and 10 yr. I			2.0070						
23	(Avg. or 5 and 10 yr. 1	DOUTBIGE	valiable)							-
24	Projected Growth				•					
25	Retention Growth Cal	leulation			Retention	Equity	Growth			
26	Value Line	EPS	DPS	BVPS	Ratio (b)	Return {r}	{b*t}			
27	2003 est'd	\$2.00	\$1.11	\$14.55	0.445	13.50%	6.01%	63.5		
28	2003 est d	\$2.10	\$1.12	\$15.90	0.467	13.00%	6.07%	00.0		
30	2004 est d	\$2.25	\$1.12	\$19.50	0.4791	11.50%	5.51%	65		
31	2000-2000 63(0	ФZ.ZJ	φ1.12	\$13.50	0.4191	11.5070	0.0176	0.5		
31	Analyst's Estimates					Projected				
33	Value Line	8.00%	0.00%	6.00%		Growth (br)	5.86%	5.86%		
	value tille	a.uu /6	0.0076	0.00%		GIOWITIDIT	3.0070	5.0076		
34	Thomas	5.50%	-/-	n/n		ADD: External			s	v
35	Thomson	5.50%	n/a	n/a			0.24%		0.47%	0.5192
36	A					Growth (sv)	U.2470		U.4776	0.5192
37	Average	0.759/	0.000/	C 008/		Projected				
38	Proj'd Growth	<u>6.75%</u>	<u>0.00%</u>	<u>6.00%</u>			c 409/			
						"br+sv" Growth	<u>6.10%</u>			

Discounted Cash Flow Growth Parameters CASCADE NAT'L GAS

	Historic Growth	Compound (Growth			Retention Growth		·			
	-	CONTROCUTOR	GIOWIII			retention Crown					
	Historic Data	EPS	DPS	BVPS	Rentention Ratio (b)	Equity Return (r)	Growth {b*r}				
1	1995	0.8	0.96	9.76	-0.200	8.10%	-1.62%				
2	1996	0.39	0.72	10.09	-0.846	3.50%	-2.96%				
3	1997	0.93	0.96	10.16	-0.032	9.10%	-0.29%	10.97			
4	1998	0.84	0.96	10.07	-0.143	8.30%	-1.19%				
5	1999	1.24	0.96	10.36	0.226	12.00%	2.71%				
6	2000	1.39	0.96	10.79	0.309	12.90%	3.99%				
7	2001	1.47	0.96	11.01	0.347	13.30%	4.61%				
8	2002	1.13	0.96	10.34	0.150	10.90%	1.64%	11.05			
9											
10	95-97 Average	0.71	0.88	10.00		Avg. Internal					
11	00-02 Average	1.33	0.96	10.71		Growth (b*r):	3.24%				
12									S	V	
13					•	ADD: External			0.15%	0.4220	
14						Growth (sv):	0.0614%				
15	Compound Growth	13.48%	<u>1.76%</u>	<u>1.38%</u>							
16						Historic					
17						"br+sv" Growth	<u>3.30%</u>				
18											
19											
20	Value Line	EPS	DPS	BVPS							
21	Historic Growth	<u>8.25%</u>	<u>1.25%</u>	<u>1.75%</u>		•					
22	(Avg. of 5 and 10 yr. I	t both are av	vailable)								
23	B 1 4 1 B 44										
24	Projected Growth	L. L.P			hata-ti	E its .	Conside				
25	Retention Growth Cal			D) IDO	Retention	Equity	Growth				
26	Value Line	<u>EPS</u>	DPS	BVPS	Ratio {b}	Return (r)	<u>{b*r}</u> -0.97%	11.1			
27	2003 est'd	\$0.85	\$0.96	\$11.25	-0.1294 0.2889	7.50% 10.50%	-0.97% 3.03%	11.1			
28	2004 est'd	\$1.35	\$0.96	\$12.10 \$14.50	0.2889	12,50%	5.50%	12			
30	2006-2008 est'd	\$1.75	\$0.98	\$14.50	0.4400	12,50%	5,50%	12			
31 32	Analyst's Estimates					Projected					
	Value Line	4.50%	0.50%	5.00%		Growth (br)	5.50%	4.27%			
33 34	A Suge Fille	4.50%	0.30 %	3.00%		GIOMILION	3.50%	4.21 10			
35	Thomson	4.00%	n/a	n/a		ADD: External			s	v	
36	Homson	7.0070	100	144		Growth (sv)	0.66%		1.57%	0.4220	
36 37	Average					Cionti (34)	0.0076		1.01 /6	J.7220	
38	Proj'd Growth	4.25%	0.50%	5.00%		Projected					
30	r roja Growni	7.2076	<u>0.3076</u>	<u>5.5070</u>		"br+sv" Growth	6.16%				
						3. 3. 3.000	<u> </u>				

Discounted Cash Flow Growth Parameters KEYSPAN CORP.

	Historic Growth	Compound	<u>Growth</u>			Retention Growth	<u>l</u>			
	<u>Historic Data</u>	<u>EPS</u>	DPS	<u>BVPS</u>	Rentention Ratio (b)	Equity Return (r)	Growth {b*r}			
1	1995	1.9	1.39	16.94	0.268	11.10%	2.98%			
2	1996	1.96	1.42	18.17	0.276	10.70%	2.95%			
3	1997	2.12	1.46	19.09	0.311	10.90%	3.39%	50.77		
4	1998	-1.34	1.5	23.18	2.119	0.00%	0.00%			
5	1999	1.62	1.78	20.28	-0.099	8.20%	-0.81%			
6	2000	2.1	1.78	20.65	0.152	10.00%	1.52%			
7	2001	1.72	1.78	20.73	-0.035	8.20%	-0.29%			
8	2002	2.75	1.78	20.67	0.353	13.30%	4.69%	142.42		
9										
10	95-97 Average	1.99	1.42	18.07		Avg. internal				
11	00-02 Average	2.19	1.78	20.68		Growth (b*r):	3.11%			
12									\$	V
13						ADD: External			22.91%	0.3243
14						Growth (sv):	7.4302%			
15	Compound Growth	<u>1.90%</u>	4.57%	<u>2.74%</u>						
16						Historic				
17						"br+sv" Growth	<u>10.54%</u>			
18										
19										
20	Value Line	EPS	DPS	BVPS						
21	Historic Growth	3.00%	<u>4,00%</u>	<u>3.25%</u>						
22	(Avg. of 5 and 10 yr. I	f both are a	vailable)							
23										
24	Projected Growth									
25	Retention Growth Cal				Retention	Equity	Growth			
26	<u>Value Line</u>	<u>EPS</u>	<u>DPS</u>	<u>BVPS</u>	Ratio (b)	Return (r)	{b*t}			
27	2003 est'd	\$2.35	\$1.78	\$22.65	0.2426	10.50%	2.55%	159		
28	2004 est'd	\$2.65	\$1.78	\$23.55	0.3283	11.00%	3.61%			
30	2006-2008 est'd	\$3.35	\$1.90	\$27.65	0.4328	. 12.00%	5.19%	159		
31										
32	Analyst's Estimates					Projected				
33	Value Line	7.50%	1.00%	5.00%		Growth (br)	5.19%	4.40%		
34										
35	Thomson	6.00%	n/a	n/a		ADD: External			S	٧
36						Growth (sv)	0.00%		0.00%	0.3243
37	Average									
38	Proj'd Growth	<u>6.75%</u>	0.50%	<u>5.00%</u>		Projected				
						"br+sv" Growth	<u>5.19%</u>			

Discounted Cash Flow Growth Parameters NUI CORP.

	Historic Growth	Compound	<u>Growth</u>			Retention Growth	L			
	Historic Data	<u>EPS</u>	DPS	BVPS	Rentention Ratio (b)	Equity Return (r)	Growth {b*r}			
1	1995	1.21	0.9	15.31	0.256	7.90%	2.02%			
2	1996	1.52	0.9	16.16	0.408	8.30%	3.39%			
3	1997	1.75	0.94	17.56	0.463	9.00%	4.17%	12,43		
4	1998	1.45	0.98	17.59	0.324	8.20%	2.66%			
5	1999	1.75	0.98	18.61	0.440	9.40%	4.14%			
6	2000	2.07	0.98	19.79	0.527	10.40%	5.48%			
7	2001	1.7	0.98	21.29	0.424	7.80%	3.30%			
8	2002	1.08	0.98	18.03	0.093	5.60%	0.52%	15.99		
g										
10	95-97 Average	1.49	0.91	16.34		Avg. Internal				
11	00-02 Average	1.62	0.98	19.70		Growth (b*r):	3.21%			
12	-					` ,			s	v
13						ADD: External			5.17%	-0.1905
14						Growth (sv):	-0.9841%			
15	Compound Growth	<u>1.60%</u>	<u>1.42%</u>	3.81%						
16						Historic				
17						"br+sv" Growth	2.22%			
18										
19										
20	Value Line	EPS	DPS	BVPS						
21	Historic Growth	<u>2.25%</u>	<u>-1.50%</u>	3.75%						
22	(Avg. of 5 and 10 yr. I	f both are a	vailable)							
23										
24	Projected Growth									
25	Retention Growth Ca				Retention	Equity	Growth			
26	Value Line	<u>EPS</u>	DPS	BVPS	Ratio (b)	Return (r)	{p_t}			
27	2003 est'd	\$1.10	\$0.98	\$15.15	0.1091	7.50%	0.82%	16.5		
28	2004 est'd	\$1.25	\$0.98	\$15.45	0.2160	8.00%	1.73%			
30	2006-2008 est'd	\$2.05	\$1.00	\$18.50	0.5122	11.50%	5.89%	19		
31										
32	Analyst's Estimates		0.500			Projected				
33	Value Line	7.00%	0.50%	n/a		Growth (br)	5.89%	2.81%		
34										
35	Thomson	2.00%	n/a	n/a		ADD: External			S	V
36						Growth (sv)	-0.55%		2.86%	-0.1905
37	Average									
38	Proi'd Growth	<u>4.50%</u>	0.50%	<u>n/a</u>		Projected				
						"br+sv" Growth	<u>5.34%</u>			

Discounted Cash Flow Growth Parameters NICOR, INC.

	Historic Growth	Compound	<u>Growth</u>			Retention Growth	L			
	Historic Data	EPS	DPS	BVP\$	Rentention Ratio (b)	Equity Return (r)	Growth {b*r}		•	
1	1995	1.96	1.28	13.67	0.347	14.40%	5.00%			
2	1996	2.42	1.32	14.74	0.455	16.60%	7,55%			
3	1997	2.55	1.4	15.43	0.451	16.70%	7.53%	48.22		
4	1998	2.31	1.48	15.97	0.359	14.60%	5.25%			
5	1999	2.57	1.54	16.8	0.401	15.40%	6.17%			
6	2000	2.94	1.66	15.56	0.435	19.20%	8.36%			
7	2001	3.01	1.76	16.39	0.415	18.70%	7.77%			
8	2002	2.88	1.84	16.55	0.361	17.50%	6.32%	44.01		
9										
10	95-97 Average	2.31	1.33	14.61		Avg. Internal				
11	00-02 Average	2.94	1.75	16.17		Growth (b*r):	6.74%			
12									S	V
13						ADD: External			-1.81%	0.4872
14						Growth (sv):	-0.8821%			
15	Compound Growth	<u>4.97%</u>	<u>5.63%</u>	<u>2.04%</u>						
16						Historic				
17						"br+sv" Growth	· <u>5.86%</u>			
18										
19	Malana Alina	EPS	550	0)/00						
20	Value Line	_	DPS	BVPS						
21 22	Historic Growth (Avg. of 5 and 10 yr. I	4.75%	4.75%	<u>3.25%</u>						
23	(Avg. or 5 and 10 yr. i	ii boin are a	valiable)							
24	Projected Growth									
25	Retention Growth Cal	lculation			Retention	Equity	Growth			
26	Value Line	EPS	DPS	BVPS	Ratio {b}	Return (r)	(b*r)			
27	2003 est'd	\$2.40	\$1.86	\$17.45	0.2250	13.50%	3.04%	44.1		
28	2004 est'd	\$2.50	\$1.94	\$18.25	0,2240	14.00%	3.14%	77.1		
30	2006-2008 est'd	\$3.50	\$2.18	\$20.60	0.3771	17.00%	6.41%	43		
31	2000 2000 0000	40.50	4 20	Ψ20.00	0.0111	17.0070	0.4176			
32	Analyst's Estimates					Projected				
33	Value Line	3.00%	3.50%	4.00%		Growth (br)	6.41%	4.19%		
34						<u> </u>	0.4176	11.070		
35	Thomson	4.50%	n/a	n/a		ADD: External			s	v
36						Growth (sv)	-0.25%		-0.50%	0.4872
37	Average					5,5,10,1071	0.20.0		0.0070	J10, E
38	Proi'd Growth	3.75%	3.50%	4.00%		Projected	-			
						"or+sv" Growth	6.16%			

Discounted Cash Flow Growth Parameters N.W. NAT'L GAS

	Historic Growth	Compound !	Growth			Retention Growth								
	·													
	Historic Data	<u>EPS</u>	<u>DPS</u>	<u>BVPS</u>	Rentention Ratio (b)									
1	1995	1.61	1.18	14.55	0.267	10.90%	2.91%							
2	1996	1.97	1.2	15.37	0.391	12.70%	4.96%							
3	1997	1.76	1.21	16.02	0.313	11.00%	3.44%	22.86						
4	1998	1.02	1.22	16.59	-0.196	6.00%	-1.18%							
5	1999	1.7	1.23	17.12	0.276	9.90%	2.74%							
6	2000	1.79	1.24	17.93	0.307	10.00%	3.07%							
7	2001	1.88	1.25	18.56	0.335	10.20%	3.42%							
8	2002	1.62	1.26	18.88	0.222	8.50%	1.89%	25.59						
9														
10	95-97 Average	1.78	1.20	15.31		Avg. Internal								
11	00-02 Average	1.76	1.25	18.46		Growth (b*r):	3.20%							
12									S	V				
13						ADD: External			2.28%	0.3197				
14				_		Growth (sv):	0.7295%							
15	Compound Growth	<u>-0.19%</u>	<u>0.88%</u>	<u>3.80%</u>			•							
16						Historic								
17						"br+sv" Growth	<u>3.93%</u>							
18														
19														
20	Value Line	EPS	DP\$	BVPS		•								
21	Historic Growth	<u>5.50%</u>	<u>1.00%</u>	<u>4.00%</u>										
22	(Avg. of 5 and 10 yr. I	f both are a	vailable)											
23														
24	Projected Growth													
25	Retention Growth Cal				Retention	Equity	Growth							
26	Value Line	<u>EPS</u>	DPS	BVPS	Ratio (b)	Return (r)	<u>{b*r}</u>							
27	2003 est'd	\$1.70	\$1.27	\$19.20	0.2529	9.00%	2.28%	25.8						
28	2004 est d	\$1.85	\$1.28	\$20.50	0.3081	9.00%	2.77%							
30	2006-2008 est'd	\$2.35	\$1.33	\$23.20	0.4340	10.00%	4.34%	28						
31														
32	Analyst's Estimates					Projected	4.0.404	0.4001						
33	Value Line	5.00%	1.00%	4.00%		Growth {br}	4.34%	3.13%						
34														
35	Thomson	5.00%	n/a	n/a		ADD: External			\$	V				
36						Growth (sv)	0.53%		1.65%	0.3197				
37	Average					D 1								
38	Proj'd Growth	<u>5.00%</u>	<u>1.00%</u>	<u>4.00%</u>		Projected	4.070/							
						"br+sv" Growth	<u>4.87%</u>							

Discounted Cash Flow Growth Parameters PEOPLES ENERGY

	Historic Growth									
		Compound (<u>Growth</u>			Retention Growth	_			
	Historic Data	EPS	<u>DPS</u>	BVPS	Rentention Ratio (b)	Equity Return (r)	Growth {b*r}			
1	1995	1.78	1.8	18.38	-0.011	9.70%	-0.11%			
2	1996	2.96	1.82	19.49	0.385	15.20%	5.85%			
3	1997	2.81	1.87	20.43	0.335	13.70%	4.58%	35.07		
4	1998	2.25	1.91	21.03	0.151	10.70%	1.62%			•
5	1999	2.39	1.95	21.66	0.184	11.00%	2.03%			
6	2000	2.71	2	22.02	0.262	12.40%	3.25%			
7	2001	3.16	2.03	22.76	0.358	13.90%	4.97%			
8	2002	2.8	2.07	22.74 .	0.261	12.30%	3.21%	35.46		
9										
10	95-97 Average	2.52	1.83	19.43		Avg. Internal				
11	00-02 Average	2.89	2.03	22.51		Growth (b*r):	3.64%			
12									s	٧
13						ADD: External			0.22%	0.3902
14						Growth (sv):	0.0864%			
15	Compound Growth	<u>2.81%</u>	<u>2.13%</u>	<u>2.98%</u>						
16						Historic				
17						"br+sv" Growth	<u>3.73%</u>			
18										
19										
20	Value Line	EPS	DPS	BVPS						
21	Historic Growth	3.25%	<u>2.00%</u>	<u>3.00%</u>						
22	(Avg. of 5 and 10 yr. I	If both are a	vailable)							
23										
24	Projected Growth						_			
25	Retention Growth Cal				Retention	Equity	Growth			
26	Value Line	EPS	<u>DPS</u>	<u>BVPS</u>	Ratio (b)	Return (r)	{p*t}			
27	2003 est'd	\$2.90	\$2.12	\$23.55	0.2690	12.00%	3.23%	36.75		
28	2004 est'd	\$2.85	\$2.16	\$25.55	0.2421	11.00%	2.66%			
30	2006-2008 est'd	\$3.70	\$2.24	\$32.50	0.3946	11.50%	4.54%	32		
31					•					
32	Analyst's Estimates					Projected				
33	Value Line	4.00%	1.50%	6.50%		Growth {br}	4.54%	3.48%		
34										
35	Thomson	5.00%	n/a	n/a		ADD: External			\$	V
36						Growth (sv)	-1.07%		-2.73%	0.3902
37	Average		1							
38	Proj'd Growth	<u>4.50%</u>	1.50%	6.50%		Projected	0.4704			
						"br+sv" Growth	<u>3.47%</u>			

Discounted Cash Flow Growth Parameters PIEDMONT NAT'L.

	Historic Growth	Compound (Growth_			Retention Growth	L								
				*	5 5 . 4										
	Historic Data	<u>EPS</u>	<u>DPS</u>	<u>BVPS</u>	Rentention Ratio (b)	Equity Return (r)									
1	1995	1.45	1.09	12.31	0.248	11.40%	2.83%								
2	1996	1.67	1.15	13.07	0.311	12.60%	3.92%	30.19							
3	1997	1.85	1.21	13.9	0.346	13.10%	4.53%	30.19							
4	1998	1.96	1.28	14.91	0.347	13.20%	4.58%								
5	1999	1.86	1.36	15.71 16.52	0.269	11.80% 12.10%	3.17% 3.43%								
6	2000	2.01	1.44		0.284										
7	2001	2.02	1.52	17.26	0.248 0.153	11.70%	2.90% 1.63%	33.09							
8	2002	1.89	1.6	17.82	0.153	10.60%	1.63%	33.09							
9	95-97 Average	1.66	1.15	13.09		Avg. Internal									
10 11	00-02 Average	1.97	1.15	17.20		Growth (b*r):	3.37%								
12	00-02 Average	1.87	1.52	17.20		Giowai (D 1).	3.37 /6		s	v					
13						ADD: External			1.85%	0.4792					
14						Growth (sv):	0.8872%		1,0076	0.4752					
15	Compound Growth	3.56%	5.74%	5.61%		Citowai (54).	0.007276								
16	Compound Crown	<u>5.5076</u>	3.1476	3.0170		Historic									
17						"br+sv" Growth	4.26%								
18						DI SV GIDWIII	422079								
19															
20	Value Line	EPS	DPS	BVPS											
21	Historic Growth	4.50%	5.75%	5.75%											
22	(Avg. of 5 and 10 yr. I			9.7070											
23	(rivg. or o and to ji. i	· botti pio a	vandoic,												
24	Projected Growth														
25	Retention Growth Cal	culation			Retention	Equity	Growth								
26	Value Line	EPS	DPS	BVPS	Ratio (b)	Return (r)	{b*r}								
27	2003 est'd	\$2.15	\$1.66	\$19.85	0.2279	10.50%	2.39%	33.5							
28	2004 est'd	\$2.30	\$1.72	\$20.75	0.2522	11.50%	2.90%	55.5							
30	2006-2008 est'd	\$3.05	\$1,90	\$23.45	0.3770	13.00%	4.90%	35							
31	2000 2000 0002	+0.00	•	V 2 V 110	0.0110	, , , , , ,	1	•••							
32	Analyst's Estimates					Projected									
33	Value Line	7.50%	4.00%	5.50%		Growth (br)	4.90%	3.40%							
34															
35	Thomson	5.00%	n/a	n/a		ADD: External			s	٧					
36	•		***			Growth (sv)	0.42%		0.88%	0.4792					
37	Average														
38	Proj'd Growth	6.25%	4.00%	5.50%		Projected									
						"br+sv" Growth	<u>5.32%</u>								

Discounted Cash Flow Growth Parameters SOUTH JERSEY INDS.

	Historic Growth					Retention Growth				
		Compound	<u>Growth</u>							
	Historic Data	<u>EPS</u>	DPS	<u>BVPS</u>	Rentention Ratio (b)	Equity Return (r)	Growth {b*r}			
1	1995	1.65	1.44	14.67	0.127	11.20%	1.43%			
2	1996	1.7	1.44	16.06	0.153	10.60%	1.62%			
3	1997	1.71	1.44	12.86	0.158	13.30%	2.10%	10.77		
4	1998	1.28	1.44	12.45	-0.125	10.30%	-1.29%			
5	1999	2.01	1.44	13.48	0.284	14.60%	4.14%			
6	2000	2.16	1.46	14.5	0.324	14.80%	4.80%			
7	2001	2.29	1.48	15.62	0.354	12.80%	4.53%			
В	2002	2.43	1.51	19.34	0.379	12.50%	4.73%	12.21		
9										
10	95-97 Average	1.69	1.44	14.53		Avg. Internal				
11	00-02 Average	2.29	1.48	16.49		Growth (b*r):	3.33%			
12									\$	٧
13						ADD: External			2.54%	0.4444
14						Growth (sv):	1.1295%			
15	Compound Growth	6.34%	0.59%	<u>2.56%</u>						
16	•					Historic				
17						"br+sv" Growth	4.46%			
18										
19										
20	Value Line	EPS	DPS	BVPS						
21	Historic Growth	<u>5.75%</u>	<u>0.50%</u>	<u>2.25%</u>						
22	(Avg. of 5 and 10 yr. I	If both are a	vailable)							
23										
24	Projected Growth									
25	Retention Growth Cal				Retention	Equity	Growth			
26	<u>Value Line</u>	<u>EPS</u>	<u>DPS</u>	<u>BVPS</u>	Ratio (b)	Return {r}	$\{b^*r\}$			
27	2003 est'd	\$2.65	\$1,54	\$20.95	0.4189	12.50%	5.24%	12.5		
28	2004 est'd	\$2.80	\$1.58	\$22.45	0.4357	12.50%	5.45%			
30	2006-2008 est'd	\$3.30	\$1.60	\$28.75	0.5152	11.50%	5.92%	13.5		
31										
32	Analyst's Estimates					Projected				
33	Value Line	5.50%	1.50%	7.00%		Growth (br)	5.92%	5.54%		
34										
35	Thomson	4.00%	n/a	n/a		ADD: External			\$	V
- 36						<u>Growth (sv)</u>	0.69%		1.55%	0.4444
37	Average									
38	Proj'd Growth	<u>4.75%</u>	<u>1.50%</u>	<u>7.00%</u>		Projected				
						"br+sv" Growth	<u>6.61%</u>			

Discounted Cash Flow Growth Parameters SOUTHWEST GAS

	Historic Growth	Compound (Growth			Retention Growth				
		O O T T D O O T T O	<u> </u>			1,2=1,2=1,2=1,2=1,2=1,2=1,2=1,2=1,2=1,2=	-			
	Historic Data	EPS	DPS	BVPS	Rentention Ratio (b)	Equity Return (r)	Growth {b*r}			
1	1995	0.1	0.82	14.55	-7.200	0.70%	-5.04%			
2	1996	0.25	0.82	14.2	-2.280	1.70%	-3.88%			
3	1997	0.77	0.82	14.09	-0.065	5.40%	-0.35%	27.39		
4	1998	1.65	0.82	15.67	0.503	10.00%	5.03%			
5	1999	1.27	0.82	16.31	0.354	7.80%	2.76%			
6	2000	1.21	0.82	16.82	0.322	7.20%	2.32%			
7	2001	1.15	0.82	17.27	0.287	6.60%	1.89%			
8	2002	1.16	0.82	17.91	0.293	6.50%	1.91%	33.29		
9										
10	95-97 Average	0.37	0.82	14.28		Avg. Internal				
11	00-02 Average	1,17	0.82	17.33		Growth (b*r):	2.78%			
12	•								S	٧
13						ADD: External			3.98%	0.1736
14						Growth (sv):	0.6907%			
15	Compound Growth	25.74%	<u>0.00%</u>	3.95%						
16						Historic				
17						"br+sv" Growth	<u>3.47%</u>			
18										
19										
20	Value Line	EPS	DPS	BVPS						
21	Historic Growth	10.00%	<u>-4.00%</u>	<u>2.00%</u>						
22	(Avg. of 5 and 10 yr. I	f both are a	vailable)							
23										
24	Projected Growth					.				
25	Retention Growth Cal				Retention	Equity	Growth			
26	Value Line	<u>EPS</u>	<u>DPS</u>	<u>BVPS</u>	Ratio (b)	Return (r)	{b^r}			
27	2003 est'd	\$1.35	\$0.82	\$18.80	0.3926	7.00%	2.75%	33.75		
28	2004 est'd	\$1.55	\$0.82	\$19.70	0.4710	8.00%	3.77%			
30	2006-2008 est'd	\$2.05	\$0.82	\$22.55	0.6000	9.00%	5.40%	36		
31										
32	Analyst's Estimates		+			Projected	* = +==/	0.0=0/		
33	Value Line	9.50%	0.00%	4.50%		Growth (br)	5.40%	3.97%		
34										
35	Thomson	5.50%	n/a	n/a		ADD: External			\$	٧
36						Growth (sv)	0.23%		1.30%	0.1736
37	Average									
38	Proj'd Growth	<u>7.50%</u>	<u>0.00%</u>	<u>4.50%</u>		Projected				
						"br+sv" Growth	<u>5.63%</u>			

Discounted Cash Flow Growth Parameters WGL HOLDINGS

	Historic Growth					Retention Growth				
		Compound	<u>Growth</u>							
	Historic Data	<u>EPS</u>	DPS	<u>BVPS</u>	Rentention Ratio (b)	Equity Return (r)	Growth {b*r}			
1	1995	1.45	1.12	11.95	0.228	12.00%	2.73%			
2	1996	1.85	1.14	12.79	0.384	14.40%	5.53%			
3	1997	1.85	1.17	13.48	0.368	13.70%	5.04%	43.7		
4	1998	1.54	1.2	13.86	0.221	11.10%	2.45%			
5	1999	1.47	1.22	14.72	0.170	9.90%	1.68%			
6	2000	1.79	1.24	15.31	0.307	11.70%	3.59%			
7	2001	1.88	1.26	16.24	0.330	11.20%	3.69%			
8	2002	1.14	1.27	15.78	-0.114	7.20%	-0.82%	48.56		
9										
10	95-97 Average	1.72	1.14	12.74		Avg. internal				
11	00-02 Average	1.60	1.26	15.78		Growth (b*r):	3.53%			
12									S	V
13						ADD: External			2.13%	0.3377
14						Growth (sv):	0.7198%			
15	Compound Growth	<u>-1.36%</u>	<u>1.91%</u>	4.37%						
16						Historic				
17						"br+sv" Growth	<u>4.25%</u>			
18										
19										
20	Value Line	EPS	DPS	BVPS						
21	Historic Growth	<u>0.75%</u>	<u>2.00%</u>	<u>4.50%</u>						
22	(Avg, of 5 and 10 yr. I	lf both are a	vailable)							
23										
24	Projected Growth									
25	Retention Growth Cal	lculation	•		Retention	Equity	Growth			
26	<u>Value Line</u>	<u>EPS</u>	<u>DPS</u>	<u>BVPS</u>	Ratio (b)	Return (r)	<u>{b*r}</u>			
27	2003 est'd	\$2.20	\$1.28	\$16.95	0.4182	12.00%	5.02%	48.5		
28	2004 est'd	\$1.95	\$1.29	\$17.60	0.3385	10.50%	3.55%			
30	2006-2008 est d	\$2.40	\$1.33	\$21.10	0.4458	11.50%	5.13%	48.5		
31										
32	Analyst's Estimates					Projected				
33	Value Line	7.00%	1.00%	3.00%		Growth {br}	5.13%	4.57%		
34										
35	Thomson	4.00%	n/a	n/a		ADD: External			S	٧
36						Growth (sv)	0.00%		0.00%	0.3377
37	Average									
38	Proi'd Growth	<u>5.50%</u>	1.00%	3.00%		Projected				
						"br+sv" Growth	<u>5.13%</u>			

Allen - Rebuttal GR-2004-0209 Missouri Gas Energy

DCF Analysis

		[(Q*4) * (1+.5G)] Expected Dividend		Dividen	d Yield	Expecte	d Growth	DCF Cost of Equity			
	Last	Projected	Average		Projected		Projected		Projected		
Company	<u>Dividend</u>	Low br+sv	Stock Price	Low	br+sv	<u>Low</u>	<u>br+sv</u>	<u>Low</u>	<u>br+sv</u>		
AGL Resources	0.280	\$ 1.137 \$ 1.154	28.18	4.04%	4.10%	3.10%	6.10%	7.14%	10.20%		
Cascade Nat'l Gas	0:240	\$ 0.981 \$ 0.990	19.73	4.97%	5.02%	4.28%	6.16%	9.25%	11.18%		
Keyspan Corp.	0.445	\$ 1.818 \$ 1.826	35.14	5.17%	5.20%	4.31%	5.19%	9.48%	10.39%		
NUI Corp.	0.245	\$ 0.991 \$ 1.006	16.37	6.05%	6.15%	2.17%	5.34%	8.22%	11.49%		
Nicor, Inc.	0.465	\$ 1.901 \$ 1.917	35.60	5.34%	5.39%	4.42%	6.16%	9.76%	11.55%		
N.W. Nat'i Gas	0.315	\$ 1.279 \$ 1.291	29.45	4.34%	4.38%	3.07%	4.87%	7.41%	9.25%		
Peoples Energy	0.530	\$ 2.155 \$ 2.157	41.30	5.22%	5.22%	3.26%	3.47%	8.48%	8.69%		
Piedmont Nat'l	0.415	\$ 1.702 \$ 1.704	39.43	4.32%	4.32%	5.11%	5.32%	9.43%	9.64%		
South Jersey Inds.	0.385	\$ 1.570 \$ 1.591	38.65	4.06%	4.12%	3.85%	6.61%	7.91%	10.73%		
Southwest Gas	0.205	\$ 0.842 \$ 0.843	22.88	3.68%	3.68%	5.34%	5.63%	9.02%	9.31%		
WGL Holdings	0.320	\$ 1.298 \$ 1.313	27.80	4.67%	4.72%	2.82%	5.13%	7.49%	9.85%		
			Average	4.71%	4.75%	3.79%	5.45%	8.51%	10.21%		

Average Weekly Prices

DATE		ATG CGC		<u>kse</u> <u>nui</u>		<u>GAS</u>		<u>NWN</u>		<u>PGL</u>		<u>PNY</u>		<u>SJI</u>		<u>swx</u>		<u>WGL</u>				
10-27-03 / 10-31-03 10-20-03 / 10-24-03 10-13-03 / 10-17-03 10-06-03 / 10-10-03 09-29-03 / 10-03-03 09-22-03 / 09-26-03	\$ \$ \$	27.70 28.19	\$ \$ \$ \$	19.58 19.94 19.95 19.72	\$ \$ \$	35.72 35.63	\$ \$ \$	16.59 16.45 15.87 15.44	\$ \$ \$	35.34 35.70 36.17 35.65	\$ \$ \$	28.93 29.96 30.11 29.63	\$ \$ \$	40.34 40.69 41.20 41.98 41.85 41.78	\$ \$ \$	39.56 39.70 39.59 39.30	\$ \$ \$	38.81 39.34 38.99 38.25	\$ \$ \$ \$ \$	22.65 22.66 23.12 23.15 22.96 22.73	\$ \$ \$	28.06 28.17 27.86 27.64
Ava. Close	\$	28.18	\$	19.73	\$	35.14	\$	16.37	\$	35.60	\$	29.45	\$	41.30	\$	39.43	\$	38.65	\$	22.88	\$	27.80