

SURREBUTTAL TESTIMONY

OF

JOHN A. TUCK

MISSOURI GAS ENERGY

A DIVISION OF SOUTHERN UNION COMPANY

CASE NO. GR-2004-0209

1 Q. PLEASE STATE YOUR NAME AND ADDRESS.

2 A. My name is John A. Tuck. My address is 107 Dover Street, Jefferson City, Missouri, 65109

3 Q. ON BEHALF OF WHOM ARE YOU TESTIFYING AND IN WHAT CAPACITY?

4 A. I am testifying on behalf of the Office of Public Counsel of the State of Missouri (OPC or Public
5 Counsel) as an independent financial consultant.

6 Q. HOW ARE YOU CURRENTLY EMPLOYED?

7 A. I am the Senior Investment Officer for The Public School and Non-Teacher School Employee
8 Retirement Systems of Missouri (PSRS/NTRS). PSRS/NTRS is a public pension fund with
9 approximately \$23 billion in assets that provides retirement benefits primarily to public school teachers
10 and other school employees in Missouri. As Senior Investment Officer, I have responsibility for, among
11 other things, the PSRS/NTRS domestic equity investment program. I have worked for the Retirement
12 Systems for the past nine years.

13 Q. HAVE YOU PREVIOUSLY FILED TESTIMONY BEFORE THE MPSC?

14 A. Yes. I have filed testimony on the issues of cost of capital and capital structure in fifteen cases before
15 the Missouri Public Service Commission (MPSC) between August 1992 and June 1995.

1 Q. PLEASE EXPLAIN.

2 A. I was employed by the Office of Public Counsel as a Public Utility Financial Analyst from June 1992
3 until February 1995. During that time, I was solely responsible for all cost of capital and rate of return
4 testimony promulgated by the OPC. As an employee of the OPC, I filed testimony in fourteen cases
5 before the Missouri Public Service Commission. This testimony included recommendations regarding
6 the appropriate overall rate of return, the specific return allowed on common equity and the appropriate
7 capital structure for ratemaking purposes.

8 In addition to presenting testimony before the MPSC, I have also testified before the Circuit Court of
9 Cole County, Missouri in Southwestern Bell Telephone Company vs. Missouri Public Service
10 Commission, Case No. CV194-24cc. Subsequent to my departure from the Public Counsel in 1995, I
11 filed cost of capital testimony on behalf of the OPC as an independent financial consultant in Missouri
12 American Water Company, Case Nos. WR-95-205/SR-95-206. Schedule JT-1, attached to this
13 testimony, contains the complete list of cases in which I have filed testimony before the MPSC.

14 Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND.

15 A. In May 1990, I received a Bachelor of Science Degree in Accounting from Southwest Missouri State
16 University in Springfield, Missouri. In December 1992, I received a Master's in Business
17 Administration with an emphasis in Finance from Southwest Missouri State University.

18 Q. HAVE YOU ATTENDED SPECIFIC EDUCATIONAL SEMINARS RELATED TO THE
19 REGULATION OF PUBLIC UTILITIES?

1 A. Yes. I attended the Fifteenth Annual Regulatory Studies Program at New Mexico State University and
2 the Advanced Regulatory Studies Program sponsored by both the National Association of Regulatory
3 Commissioners and the Institute of Public Utilities at Michigan State University.

4 Q. WHAT IS THE PURPOSE OF THIS TESTIMONY?

5 A. I will respond to the Rebuttal testimony of Company cost of capital witness John C. Dunn and Company
6 witness Roger A. Morin. Specifically, I will discuss how many of the assertions made by witness Dunn
7 regarding the issue of capital structure are not reflective of the primary considerations this Commission
8 should take into account when making a proper capital structure determination and how much of the
9 rhetoric serves to confuse the subject. Additionally, I will show that many of the remarks made by
10 witness Dunn pertaining to the testimony of OPC cost of capital witness Travis Allen are misleading or
11 inaccurate and without merit.

12 Q. DOES WITNESS DUNN'S REBUTTAL TESTIMONY CAST MEANINGFUL DOUBT AS TO THE
13 VERACITY AND RELIABILITY OF OPC WITNESS ALLEN'S TESTIMONY?

14 A. No, despite some rather extreme comments made by witness Dunn regarding the testimonies of MPSC
15 witness David Murray and OPC witness Allen, there is no specific commentary in the Rebuttal
16 testimony of witness Dunn that should be viewed by this Commission as casting a meaningful doubt as
17 to the veracity and reliability of the testimony of Mr. Allen. Many of the comments in Dunn's Rebuttal
18 highlight the shortcomings and flaws of his own analysis and recommendations in this proceeding.
19 Other issues discussed by witness Dunn that pertain to the testimony of witness Allen fall more
20 appropriately under the category of 'reasonable' philosophical differences.

1 Q. DOES WITNESS MORIN'S TESTIMONY ADDRESS THE DIRECT TESTIMONY OF MR.
2 ALLEN?

3 A. No, while not providing any Direct testimony, witness Morin was hired by Southern Union to rebut the
4 positions of Staff witness Murray. Roger Morin does not, however, make any specific comments
5 pertaining to the testimony of OPC witness Allen.

6 "I have been asked by Missouri Gas Energy....to provide rebuttal testimony to Mr. Murray's rate of
7 return testimony filed on behalf of the Staff of the Missouri Public Service Commission." (Morin
8 Rebuttal testimony, p. 3).

9 I have, however, responded to a number of statements in witness Morin's testimony that the Company,
10 at a later point in time, might attempt to imply are germane to both the testimony of Mr. Murray and Mr.
11 Allen.

12 Q. HOW IS YOUR SURREBUTTAL TESTIMONY ORGANIZED?

13 A. I will first address the Rebuttal testimony of witness Dunn that pertains to the issue of capital structure.
14 Next I will comment on statements by Mr. Dunn related to the determination of the cost of equity and to
15 the testimony of OPC witness Allen. Finally, I will discuss a few specific issues pertaining to the
16 testimony of Roger Morin.

17 Q. HAVE YOU ATTACHED SCHEDULES IN SUPPORT OF YOUR TESTIMONY?

18 A. Yes. There are (2) schedules attached to my testimony.
19

DETERMINATION OF AN APPROPRIATE CAPITAL STRUCTURE

Q. IS THE SELECTION OF AN APPROPRIATE CAPITAL STRUCTURE FOR RATEMAKING PURPOSES A SIGNIFICANT ISSUE IN THIS PROCEEDING?

A. Yes. OPC witness Allen and Staff witness Murray recommended the consolidated capital structure for Southern Union Company (the Company, SUG). Company witness Dunn, on the other hand, suggests it is appropriate to use the capital structure of SUG less the debt securities of one of its subsidiaries – Panhandle Eastern Pipe Line (PEPL). Dunn states in his Rebuttal testimony (p. 9), “The proper capital structure is the stand alone capital structure of Southern Union after removing....the impact of its Panhandle Eastern subsidiary.”

Q. WHAT IS THE RESULT OF WITNESS DUNN’S EXCLUSION OF THE PEPL DEBT?

A. Due to the exclusion of the PEPL debt, the common equity ratio included in the capital structure recommendation of company witness Dunn is substantially higher than the actual common equity ratio of Southern Union that was utilized by both the OPC and Staff. The higher common equity ratio suggested by witness Dunn results in a meaningfully higher overall cost of capital recommendation in this proceeding versus the results obtained by using the Company’s actual capital structure as of December 31, 2003.

Excluding short-term debt from the calculation, the consolidated capital structure of Southern Union as of December 31, 2003 contains approximately 28.1 percent common equity (the ratio is approximately 26.0 percent with an average balance of short-term debt in excess of CWIP

1 included). Witness Dunn asserts in his Rebuttal testimony (p. 17) that the capital structure used for
2 ratemaking purposes should contain 42.1 percent common equity (as of December 31, 2003).

3 Q. WHAT DOES THE INVESTMENT COMMUNITY RECOGNIZE AS SOUTHERN UNION'S
4 CAPITAL STRUCTURE?

5 A. The investment community recognizes the consolidated capital structure of Southern Union,
6 including the PEPL debt.

7 "Unlike other gas utilities that maintain an equity level nearly equal to debt, SUG has a
8 highly leveraged balance sheet following its recent acquisition. As of December 31, 2003, common
9 equity represented only 26% of total capitalization." (A.G. Edwards, Gas Utilities Quarterly
10 Review, April 5, 2004, p. 70)

11 Q. IS THERE ANOTHER ALTERNATIVE THAT COULD BE UTILIZED BY THIS
12 COMMISSION TO MAKE A CAPITAL STRUCTURE DETERMINATION?

13 A. Yes. Based on statements made in witness Dunn's Direct testimony regarding the appropriateness
14 of a hypothetical capital structure (pages 28-30), OPC witness Allen responded in Rebuttal by
15 providing a third alternative that is appropriately described as a hypothetical capital structure based
16 on a "zone of reasonableness" for a representative group of fifteen gas distribution utilities covered
17 by Value Line. The "zone of reasonableness" is defined as the range of common equity ratios that
18 fall within plus or minus one standard deviation of the mean, which by definition comprises
19 approximately 68 percent of the measurements in the data set.

20 Q. PLEASE DESCRIBE THE HYPOTHETICAL CAPITAL STRUCTURE CALCULATION.

1 A. Mr. Allen's determination of an appropriate hypothetical calculation takes into account the
2 variation of equity capital ratios around the mean of the group of witness Dunn's 'proxy' companies
3 in establishing a reasonable range of equity versus debt tradeoffs. The methodology recognizes that
4 there is not just one capital structure that is appropriate for a typical gas distribution utility, as
5 witnessed by the fact this group has equity ratios ranging from 21.7 percent to 64.5 percent (Dunn
6 Direct, Schedule JCD-2). Witness Allen selected the low end of the 'zone of reasonableness' range
7 that encompasses plus or minus one standard deviation from the mean since Southern Union's
8 current equity ratio is below the range indicated by the statistical analysis. This, according to
9 witness Allen, eliminates the need to set the ratio of equity to anything other than the low end and
10 the established range.

11 The equity ratio indicated by Mr. Allen's analysis is 37.6 percent, assuming that the historic
12 average short-term debt in excess of CWIP is not included. The equity ratio indicated by Mr.
13 Allen's analysis is 35.0 percent with SUG's short-term debt included in the calculation. The entire
14 hypothetical capital structure is shown in witness Allen's Rebuttal (p. 13).

15 The group of fifteen companies that witness Allen used to develop this hypothetical capital
16 structure are the same group that Company witness Dunn utilizes as 'comparables' in his capital
17 cost analysis. Witness Allen selected those particular companies to develop an appropriate
18 hypothetical capital structure for this proceeding in order to limit the controversy with Company
19 witness Dunn as to what group of companies are the best 'comparables' for ratemaking purposes.

20 Witness Dunn describes this group of companies in his Direct testimony (p. 26): "The proxy
21 companies constitute a reasonably homogeneous group of natural gas distribution companies. The

1 companies reflect the characteristics of reasonably sized, publicly traded, well known companies
2 which can be used as the basis of analysis to determine the required return on common equity for a
3 similar non-traded natural gas distribution company such as MGE.”

4 The methodology utilized by witness Allen to develop an appropriate hypothetical capital structure
5 alternative is based on (and therefore consistent with) methodologies employed by the Office of
6 Public Counsel and adopted by this Commission in the past (St. Joseph Light & Power Company,
7 Case No. ER-93-41). In that proceeding, the Commission explicitly recognized the validity of the
8 approach developed by the OPC to determine a “zone of reasonableness” in establishing an
9 appropriate hypothetical capital structure.

10 Q. WHAT CAPITAL STRUCTURE IS APPROPRIATE FOR USE IN THIS PROCEEDING?

11 A. I believe the actual consolidated capital structure of Southern Union as proposed by OPC and Staff
12 is more appropriate than the capital structure proposed by witness Dunn that is based generally on
13 Southern Union’s consolidated numbers less the substantial debt level of PEPL.¹ The hypothetical
14 capital structure outlined by Mr. Allen in Rebuttal testimony, however, is an appropriate alternative
15 based on sound fundamental logic and intuitive concepts and principles. Additionally, the
16 hypothetical capital structure outlined by Mr. Allen results in an equity ratio that lies between the
17 two very disparate original alternatives.

¹ In Rebuttal testimony, witness Dunn reduces the level of equity in his proposed capital structure by \$49 million to reflect a reduction in retained earnings attributable to the operations of Panhandle Eastern subsequent to the acquisition by SUG.

1 Q. WHY DOES THE CONSOLIDATED CAPITAL STRUCTURE AND THE HYPOTHETICAL
2 RECOMMENDED BY WITNESS ALLEN REPRESENT BETTER ALTERNATIVES THAN
3 WITNESS DUNN'S RECOMMENDATION?

4 A. There are several important aspects to that question that I will address in the remainder of the
5 capital structure discussion portion of this testimony. First of all, many of the assertions in witness
6 Dunn's testimony that support his capital structure recommendation are not reflective of the
7 primary considerations that should be taken into account when making a proper capital structure
8 determination in this proceeding. The resulting methodology becomes a poor choice to utilize in
9 this, or future, Southern Union rate proceedings because it does not reflect the most important
10 market-based capital structure and because it produces potential outcomes that are partially an
11 'artifact' of higher order decision making by Company management related to its consolidated
12 capital structure.

13 Capital structures resulting from this method could be arbitrary and not based directly upon specific
14 decisions designed to optimize their efficiency or effectiveness. If embraced by this Commission or
15 applied in future Company rate proceedings, this methodology could lead to inappropriate results
16 given specific circumstances pertaining to SUG and some of the logic embedded in witness Dunn's
17 analysis.

18 Q. CAN EQUITY INVESTORS MAKE AN INVESTMENT IN THE SOUTHERN UNION GAS
19 DISTRIBUTION BUSINESSES WITHOUT ALSO EXPOSING THEIR CAPITAL TO THE
20 RISKS ASSOCIATED WITH PEPL?

1 A. No. Equity investors can only make investments in the consolidated entity. As a result, equity
2 investors are primarily concerned with the risks associated with the consolidated entity, not just the
3 operations of the gas distribution businesses. Likewise, despite the non-recourse nature of the
4 PEPL debt, investors in the debt securities issued by SUG must take into consideration the level of
5 overall financial risk embedded into the consolidated entity. Staff witness Murray provides the
6 following information from an S&P report issued on June 11, 2003 in his Rebuttal testimony (p.
7 12): "The corporate credit rating is based on the consolidated business and financial profile of
8 Southern Union and its subsidiaries. The corporate credit rating is assigned to the senior debt at
9 both Southern Union and its pipeline subsidiary."

10 Q. DOES THE MANGEMENT OF SUG RECOGNIZE THIS IN THEIR DECISION MAKING?

11 A. Yes. The Company's public statements regarding the need to reduce its consolidated debt ratio are
12 certainly one indication that management understands the importance of its overall debt levels.
13 Additionally, in order to act in the interests of shareholders, the Company should take this into
14 consideration and their actions would seem to indicate this is true.

15 Q. PLEASE EXPLAIN

16 A. Southern Union is under a great deal of pressure to decrease its consolidated debt ratio. It would
17 appear likely that this pressure could drive capital structure decisions made by the Company for
18 some time. For example, in Rebuttal testimony, witness Dunn states,

19 "Southern Union has publicly announced that it will achieve a 55% debt ratio as quickly as
20 possible. This most likely will involve further issuance of equity." (Dunn Rebuttal, p. 15)

1 On page 14, Dunn states, "...S&P, which is investor influencing, expects that Southern Union will
2 significantly decrease the leverage in its capital structure." Dunn goes on to state that an April 6,
3 2004 S&P research summary for Southern Union projects a debt ratio of 56 percent by the end of
4 2005 and a 50 percent debt ratio in 2006 for SUG.

5 A Credit Lyonnais Securities report on SUG provided by the Company in response to an OPC data
6 request (#2022) states,

7 "The Company still has a goal of reducing debt to 55% by June 2005, as a means of
8 placating the rating agencies..."

9 The report goes on to state,

10 "Given that the company is focused on not being downgraded by the rating agencies (it is at
11 Baa3 at Moody's and BBB at Standard & Poor's, both on negative watch), we believe that an equity
12 offering is likely in 2004."

13 Southern Union obviously does not want to see its debt securities downgraded again and is under
14 pressure to live up to its public statements. This is particularly true since the Company has, in the
15 past, disappointed its debt investors and the rating agencies in terms of decreasing leverage. It is
16 also clear that it is the consolidated debt level of SUG (including the debt of Panhandle Eastern)
17 that matters most to both debt and equity investors of the Company. Given the pressure to meet
18 investors' expectations, the highest-level capital structure decisions of the Company going forward
19 will likely be driven primarily by goals pertaining to the consolidated capital structure. Due to this,
20 the methodology employed by witness Dunn that excludes the PEPL debt could result in
21 inappropriate capital structures for ratemaking.

1 Q. PLEASE EXPLAIN HOW DUNN'S METHODOLOGY COULD RESULT IN CAPITAL
2 STRUCTURES THAT WOULD NOT BE APPROPRIATE FOR RATEMAKING PURPOSES?

3 A. As the Company manages its consolidated capital structure to live up to its public statements
4 regarding the objective of a 55 percent consolidated debt ratio, the equity ratio derived by using
5 witness Dunn's methodology could soar assuming that the majority of new equity came from new
6 stock issuances or retained earnings from the gas distribution businesses.

7 Q. WHAT COMMON EQUITY RATIO WOULD RESULT FROM DUNN'S METHODOLOGY IF
8 THE COMPANY OBTAINED ITS CONSOLIDATED DEBT RATIO OBJECTIVE OF 55
9 PERCENT OF TOTAL CAPITAL BY JUNE OF 2005?

10 A. While it cannot be known precisely, it is possible to make some reasonable estimates. Assuming
11 that the amount of preferred stock and long-term debt remained the same, there was no short-term
12 debt included, and that PEPL did not contribute to the retained earnings of the Company over the
13 next several years, the common equity ratio derived from witness Dunn's methodology if SUG met
14 its 55 percent consolidated debt ratio target would be approximately 55.2 percent.

15 Assuming that the amount of preferred stock remained the same, there was no short-term debt
16 included, all new equity (new issuances and retained earnings) was used to pay down existing debt,
17 and that PEPL did not contribute to the retained earnings of the Company over the next several
18 years, the common equity ratio derived from witness Dunn's methodology if SUG met its 55
19 percent consolidated debt ratio target would be approximately 58.2 percent.

1 If a portion of new equity was used to pay down existing debt and a portion was used to finance
2 new investments, the equity ratio using Dunn's methodology would likely be somewhere between
3 55.2 percent and 58.2 percent. If PEPL contributes meaningfully to retained earnings or if PEPL
4 manages to pay down a portion of its debt, the equity ratio derived from witness Dunn's
5 methodology would be less, with a specific determination being difficult to make.

6 Q. WHAT COMMON EQUITY RATIO WOULD RESULT FROM DUNN'S METHODOLOGY IF
7 THE COMPANY OBTAINED THE 50 PERCENT DEBT-TO-TOTAL CAPITAL RATIO
8 PROJECTED BY S&P?

9 A. Assuming that the amount of preferred stock and long-term debt remained the same, there was no
10 short-term debt included, and that PEPL did not contribute to retained earnings over the next
11 several years, the common equity ratio derived from witness Dunn's methodology if SUG obtained
12 a 50 percent consolidated debt ratio would be approximately 60.9 percent.

13 Assuming that the amount of preferred stock remained the same, there was no short-term debt
14 included, all new equity (new issuances and retained earnings) was used to pay down existing debt,
15 and that PEPL did not contribute to retained earnings over the next several years, the common
16 equity ratio derived from witness Dunn's methodology if SUG obtained a 55 percent consolidated
17 debt ratio target would be approximately 66.0 percent.

18 If a portion of new equity was used to pay down existing debt and a portion was used to finance
19 new investments, the equity ratio using Dunn's method would be somewhere between 60.9 percent
20 and 66.0 percent. If PEPL contributes meaningfully to retained earnings or if PEPL manages to pay

1 down a portion of its debt, the equity ratio derived from witness Dunn's methodology would be
2 less, with a specific determination being difficult to make.

3 Q. WOULD A 55 PLUS PERCENT EQUITY RATIO DERIVED FROM DUNN'S METHOD BE
4 APPROPRIATE FOR RATEMAKING PURPOSES?

5 A. Probably not, particularly based on some of the testimony of witness Dunn. Mr. Dunn has
6 suggested that his equity ratio recommendation (42.1 percent) is generally appropriate for the gas
7 distribution businesses of SUG, consistent with the industry average, and reflects company
8 decisions to create capital structures that are appropriate for each line of business. Using that logic,
9 it would be improbable that the equity requirements necessary to properly finance the gas
10 distribution businesses would increase from approximately 42 percent to 55 percent or 65 percent in
11 just over a year.

12 Looking forward to see the results of witness Dunn's methodology assuming the Company meets
13 public goals pertaining to its consolidated capital structure provides meaningful evidence of why
14 the witness's methodology should not be adopted by the Commission in this proceeding.

15 Q. PLEASE EXPLAIN.

16 A. The conflict inherent in the Company meeting its public goals and Dunn's statements regarding
17 divisional capital structure theory is clear. In Rebuttal, Dunn states:

18 ♦ "It is simply wrong to say that companies do not allocate different types of capital to their various
19 enterprises, divisions, subsidiaries and investments based upon management's appraisal of the risk of
20 the various entities." (p.18)

1 ♦ "...Southern Union management allocates capital to MGE and makes its investment decisions for MGE
2 based on Missouri risk and opportunity." (p. 19)

3 The equity ratio derived from witness Dunn's methodology could, instead, be more of a fallout
4 from decisions made by the Company at the consolidated level. Dunn's assertion in Rebuttal
5 testimony (p. 12) that the consolidated capital structure is an "accounting artifact" is misleading and
6 self-serving. The consolidated capital structure of a company is quite relevant to common stock
7 shareholders, most bondholders and to management.

8 Q. CAN THE RATEPAYERS OF MGE BE COMPLETELY INSULATED FROM THE RISKS OR
9 COSTS OF RISK ASSOCIATED WITH PEPL?

10 A. No they cannot, particularly in the case of genuine financial hardship at PEPL. Unlike a non-
11 regulated company, general market forces cannot be relied upon to appropriately address how the
12 risks and costs associated with risk are shared between ratepayers and beneficial owners. Decisions
13 made through the regulatory process become the critical component of this determination.

14 Q. SHOULD THIS COMMISSION BE PARTICULARLY CAREFUL IN TERMS OF HOW RISKS
15 OR THE COSTS ASSOCIATED WITH INCREASED RISK ARE ALLOCATED BETWEEN
16 RATEPAYERS AND SHAREHOLDERS IN THIS PROCEEDING?

17 A. Yes. This Commission must not lose sight of the fact that the Company's capital structure is the
18 direct result of decisions made specifically under its own volition, primarily to better the prospects
19 for economic rewards for shareholders. There was an assumption of additional risks in the purchase
20 of PEPL. If nothing else, the leverage used at the consolidated level increased dramatically. The

1 basic nature of these risks associated with leverage is discussed in a Company prospectus issued on
2 January 26, 2004. Some of the risks listed in that prospectus are recreated in the Rebuttal testimony
3 of Travis Allen (p. 10).

4 Furthermore, the fact that over \$600 million in capital of the Company was put at risk by investing
5 aggressively in this leveraged proposition creates additional risks for all parties – shareholders,
6 bondholders of SUG and ratepayers. In reality, regardless of the capital structure approved for
7 ratemaking purposes, Missouri ratepayers bear a portion of the risk associated with the acquisition
8 of PEPL. Unlike shareholders who have the hope of benefiting through higher share prices if the
9 acquisition proves to be a big success, the upside for Missouri ratepayers, if any, is limited.

10 Q. IS IT IMPORTANT FOR THE REGULATORS TO DISTINGUISH BETWEEN
11 UNAVOIDABLE RISKS AND RISKS EXPLICITLY ACCEPTED BY COMPANY
12 MANAGEMENT THAT ARE DESIGNED TO PRODUCE GAINS FOR SHAREHOLDERS?

13 A. Yes. It is reasonable to believe there should be some mechanism in the scope of regulatory
14 decision-making to allocate or share risk between ratepayers and shareholders for those risks that
15 are unavoidable or an inherent part of a utilities basic operation. This is indeed the case when it
16 comes to issues such as weather normalization. The suggestion that the cost of risk, or risk itself,
17 should be transferred through the regulatory process from shareholders to ratepayers in those
18 instances where the risks are avoidable and a direct result of specific management decisions to
19 benefit shareholders is misguided. An increase in risk or an increase in the cost associated with risk
20 that directly stems from decisions by management to increase the overall company risk profile for
21 the explicit purpose of increasing the opportunity for (or magnitude of) financial rewards for

1 shareholders or, in many circumstances for management itself, should not be passed on to
2 ratepayers (or shared on a larger scale by ratepayers) through the regulatory process.

3 Q. SHOULD THE REGULATORY PROCESS ENSURE FAIR TREATMENT FOR RATEPAYERS
4 WHEN CONSIDERING THE RAMIFICATIONS OF CERTAIN ELECTIVE MANAGEMENT
5 DECISIONS?

6 A. Yes. It is the responsibility and obligation of the regulatory process to ensure fair treatment for
7 ratepayers when it comes to certain types of elective decisions by management that result in
8 increased burdens on ratepayers with no clear offsetting advantages. This principles of regulation
9 do not imply that the regulatory process should discourage decisions by company management that
10 knowingly increase overall company risk in pursuit of compensating financial rewards for
11 shareholders, but it does reinforce the practical need for the regulatory decision making process to
12 be particularly diligent in terms of not specifically assigning risks or the cost of risk to ratepayers in
13 an arbitrary manner. Some investors in a utility's common stock may not prefer to bear an increase
14 in the risk of their investment due to aggressive growth strategies or the assumption of financial
15 leverage well beyond industry norms. Those investors, however, can sell their shares or vote their
16 proxies in a way that does not support management decision-making. Ratepayers, on the other
17 hand, are primarily reliant on the regulatory process to ensure their interests have a voice.

18 Q. HOW DO RATEPAYERS BEAR A PORTION OF THE RISK OR COST OF RISK
19 ASSOCIATED WITH THE ACQUISITION OF PEPL?

20 A. They bear the risk or cost of risk in a number of ways. For example, purchasers of a company's
21 debt securities examine, among other things, the total level of debt outstanding when they determine

1 what yield on their investment will be required to make an investment. If SUG issues debt at some
2 point in the future, the cost of that debt will likely be higher due to the Company's consolidated
3 leverage position. This would eventually be incorporate into rates. If the rating agencies
4 downgrade the debt of SUG because it fails to improve its leverage ratios, the cost of borrowing
5 will also rise.

6 Likewise, if the Company issues additional equity later this year, the required return of those
7 investors will be higher, all else the same, due to the higher level of consolidated leverage. If the
8 Commission were to accept the recommendation of witness Dunn and add a flotation cost
9 adjustment to the cost of equity determination because of the possible upcoming equity issuance,
10 that would also add to the cost borne by ratepayers since SUG might not have had need for an
11 equity issuance if not for the acquisition of PEPL.

12 If this Commission increases a market-derived cost of equity estimate in its determination of the
13 rate of return in order to compensate for a more leveraged (and higher risk) capital structure, that
14 also unnecessarily increases the cost of risk to ratepayers, given that ratepayers already must bear a
15 portion of the risk related to the Company's higher levels of debt.

16 Q. IS THERE ANY EVIDENCE THAT COMPANY REPRESENTATIVES HAVE AT LEAST
17 SOME CONCERNS REGARDING THE APPROPRIATENESS OF ASKING FOR A HIGHER
18 RETURN ON EQUITY DUE TO SUG'S HIGHER LEVEL OF DEBT?

19 A. Yes. An internal memo provided to the OPC in response to data request 2022 that is from Christina
20 Dodds at Watson & Bishop to Rob Hack (and carbon copied to John Dunn) contains the following
21 statements:

1 “Essentially, the concern is one we discussed in great detail during our meetings: Why
2 should the Commission increase the recommended rate of return to reflect the greater risk
3 associated with higher debt, when the company created that “problem”? As Mike puts it, why
4 should MGE benefit from its failure to optimize its own capital structure?”

5 The entire memo is attached to this testimony as Schedule JT-2.

6 Q. HOW ELSE DO RATEPAYERS BEAR THE SPECIFIC BURDEN OF INCREASED RISK (OR
7 COST OF RISK) ASSOCIATED WITH HIGHER DEBT LEVELS?

8 A. If substantial financial hardship occurs within the operations of PEPL, the non-recourse nature of
9 the debt does not protect shareholders (so equity capital costs rise as the probability of severe
10 financial hardship rises) and the non-recourse nature of the debt is not enough to insulate ratepayers
11 from poor management decisions.

12 Debt holders of PEPL, by contractual agreement, have no recourse against the assets of SUG
13 outside of PEPL. But they do have a superior claim on the assets of PEPL that SUG paid over \$600
14 million in working capital to obtain. If severe financial hardship occurred at PEPL and if the
15 Company failed to meet its debt service, the debt holders could exercise their superior claim on the
16 assets of PEPL or the Company could be forced to sell assets to meet debt service. In any event, the
17 very nature of unforeseen risks implies that SUG could loose a portion (or all) of its investment in
18 PEPL if events turn out poorly. Under that circumstance, though extreme, the loss of millions (up
19 to \$600 + million) in working capital that could have, alternately, been used to finance (in part, or
20 whole) the natural gas distribution business of SUG (or finance a reduction of debt levels) is most

1 certainly a risk (and an increased cost of risk) to ratepayers. To argue shareholders are the only
2 ones that bear the risk or increased cost of risk associated with higher leverage is misguided.

3 Q. HAS THE INVESTMENT COMMUNITY RECOGNIZED THAT INCREASED RISKS
4 ASSOCIATED WITH HIGH LEVERAGE INFLUENCE FACTORS ASSOCIATED WITH
5 BOTH INVESTORS AND CUSTOMERS?

6 A. Yes. The following quote is taken from the A.G. Edwards Gas Utilities Quarterly Review, April 5,
7 2004 (pages 7-8):

8 “...rating agencies have adopted a lower tolerance for companies with weaker balance sheets and
9 riskier unregulated operations. Indeed, numerous gas utilities have had their ratings reduced by
10 Standard & Poor’s and Moody’s in the last 12 months, with several lowered to below investment
11 grade. **Such downgrades imply not only higher borrowing costs but also carry a negative**
12 **psychological impediment toward new investment.**” (Emphasis Added)

13 Essentially, A.G. Edwards is noting that the higher borrowing costs associated with the use of
14 higher levels of leverage can cause managements of gas distribution utilities to become reluctant to
15 make investments in the assets involved with providing customer service. This is, undoubtedly, an
16 increased risk to investors that is tied to explicit management decisions to increase the overall level
17 of debt.

18 Q. PLEASE SUMMARIZE YOUR POSITION REGARDING THE MOST APPROPRIATE
19 CAPITAL STRUCTURE FOR RATEMAKING PURPOSES?

20 A. There are several very important concerns with embracing the method asserted by Company
21 witness Dunn to determine a ratemaking capital structure. While the consolidated capital structure

1 of Southern Union may have more equity at some point in the future based on the Company's stated
2 intention to issue additional equity, it is not a good alternative to accept witness Dunn's
3 methodology for the purpose of trying to achieve a specific end result. It should be noted, also, the
4 proceeds from additional equity issuances should not be used to retire debt or make investments in
5 PEPL in order to follow the Stipulation & Agreement in the merger case (Case No. GM-2003-
6 0238).

7 The current consolidated capital structure (with appropriate updates where reasonable and in line
8 with accepted practices) represents a better alternative than witness Dunn's methodology. Also, as
9 I mentioned at the beginning of this discussion, the hypothetical capital structure contained in
10 witness Allen's Rebuttal testimony provides an appropriate alternative based on sound fundamental
11 logic and intuitive concepts and principles.

12 **ESTABLISHING THE APPROPRIATE COST OF EQUITY**

13 Q. PLEASE SUMMARIZE YOUR COMMENTS REGARDING WITNESS DUNN'S REBUTTAL
14 TESTIMONY AS IT PERTAINS TO THE COST OF EQUITY DETERMINATION OF OPC
15 WITNESS ALLEN.

16 A. Based on assertions put forth in his Rebuttal testimony, witness Dunn apparently prefers to attempt to
17 influence the views of this Commission through the use of 'sound bites' and inaccurate statements
18 designed to 'stereotype' the testimony of OPC witness Allen as opposed to providing an objective or
19 accurate assessment of the analyses and conclusions developed by the Public Counsel's cost of capital
20 witness. Dunn's efforts to portray the DCF analyses of OPC witness Allen and Staff witness Murray as
21 both similar and "arbitrary, contrived and mechanistic" is nothing more than a blatant and hollow

1 attempt to link the testimonies of the two witnesses together for the contrived purpose of inaccurately
2 assigning the suggested shortcomings of Mr. Murray's testimony to Mr. Allen's, when in reality the two
3 filings are substantially different in many key aspects. In this way, witness Dunn escapes the task of
4 making a meaningful comparison of his own flawed analysis to the conclusions and recommendations
5 put forth by Mr. Allen.

6 Q. ARE YOU AWARE THAT SUG HAS FILED A MOTION TO EXCLUDE CERTAIN TESTIMONY
7 AND OPINIONS OF DAVID MURRAY?

8 A. Yes, and as I stated, it appears that witness Dunn's attempt to link the testimony of Mr. Allen to Mr.
9 Murray's represents an effort on his part to sway this Commission to overlook Mr. Allen's analysis
10 without addressing it on its own merits.

11 Q. PLEASE EXPLAIN WHY MR. DUNN'S CRITIQUE LACKS MERIT.

12 A. The following statements were taken from the Rebuttal testimony of witness Dunn:

13 ♦ Both Staff and Public Counsel witnesses have performed arbitrary and contrived calculations...."
14 (Dunn, p. 2)

15 ♦ "Both Mr. Murray's calculations and Mr. Allen's calculations are mechanistic and have simply been
16 carried forward from previous rate proceedings with no meaningful analysis." (Dunn, p. 3)

17 ♦ "...their 'canned' testimony from prior cases has been simply 'dumped into the record' in this
18 proceeding." (Dunn, p.3-4)

1 ♦ "...the superficial analysis sponsored by both Mr. Allen and Mr. Murray demonstrates clearly that
2 neither analysis is appropriate for determining a cost of capital recommendation for MGE in this case.
3 Both are arbitrary and both are designed to produce a recommendation which is low..." (Dunn, p. 4)

4 Again on page 27 of his Rebuttal testimony witness Dunn states, "both the Staff and the Public Counsel
5 witnesses used arbitrary, contrived and mechanistic DCF calculations" as a way to begin in earnest his
6 discussion pertaining to the cost of equity recommendations of Staff and OPC. Witness Dunn then
7 proceeds on the following pages of his testimony to discuss in detail the analysis presented by Staff
8 witness Murray. The obvious component of his discussion that is missing is any mention of the
9 testimony of OPC witness Allen. While it is apparent that witness Dunn would like for this
10 Commission to believe his comments applies equally to the testimony of Staff and OPC, Dunn never
11 actually references the testimony of Mr. Allen to support his assertions and overdramatic use of the
12 words arbitrary, contrived and mechanistic.

13 Q. WHY DOES WITNESS DUNN ULTIMATELY FAIL IN HIS ATTEMPT TO PAINT THE
14 TESTIMONY OF WITNESS ALLEN AS "ARIBTRARY, CONTRIVED AND MECHANISTIC?"

15 A. While the Rebuttal testimony of Dunn is full of rhetoric intended to mischaracterize the testimony of
16 Mr. Allen, he does not (and cannot for that matter) meaningfully demonstrate his assertions because his
17 statements simply do not apply to witness Allen's analysis, conclusions and recommendations. In fact,
18 Dunn's nearly complete silence regarding the testimony of witness Allen in this portion of his testimony
19 only serves to highlight the fact that Dunn's attempts to 'stereotype' the testimony of witness Allen by
20 using convenient 'sound bites' is both misleading and without merit.

21 Q. HAVE YOU REVIEWED THE TESTIMONY OF OPC WITNESS ALLEN?

1 A. Yes, I have reviewed in detail both the Direct and Rebuttal testimony of Mr. Allen?

2 Q. DO YOU AGREE WITH THE BASIC METHODOLOGIES AND CONCLUSIONS
3 CONTAINED IN MR. ALLEN'S TESTIMONY?

4 A. Yes, I do. I found the testimony of witness Allen to be thorough, well thought out, and based on
5 appropriate financial concepts and practices.

6 Q. DO YOU BELIEVE MR. ALLEN EXAMINED AND INCORPORATED DATA REASONABLY
7 RELIED UPON BY INVESTORS IN PERFORMING A DCF ANALYSIS?

8 A. Yes, I do.

9 Q. THE GROWTH RATE DETERMINATION OF THE DCF IS A CONTENTIOUS ISSUE IN THIS
10 PROCEEDING. PLEASE DESCRIBE THE DCF GROWTH RATE ANALYSIS PERFORMED BY
11 MR. ALLEN.

12 A. The growth rate analysis employed by Mr. Allen is designed to be comprehensive in its examination of
13 historic and projected growth measures and focused on the identification of the key elements of
14 sustainable, long-term growth that are identified and utilized by investors in determining an expected
15 return (or, fair price) for a particular equity security.

16 The initial phase of the analysis is focused on gathering the body of growth rate data available from
17 numerous sources that is reasonably used by investors in their analysis of a company's future growth
18 prospects. Available growth rates are not summarily dismissed at this stage of examination. Instead,
19 data is collected and then analyzed using fundamental principles to make a determination regarding

1 what elements of the publicly available information is most influential in forming investors' future
2 growth expectations.

3 Growth rate information collected and examined by Mr. Allen includes:

- 4 ♦ Projected earnings growth rates collected from professional analysts and reported by Thompson,
- 5 ♦ Projected earnings per share growth reported by Value Line,
- 6 ♦ Projected retention growth based on information regarding projected return on equity, projected
7 earnings retention rates and projected growth in common equity shares outstanding reported by Value
8 Line,
- 9 ♦ Projected dividend per share growth reported by Value Line,
- 10 ♦ Projected book value per share growth reported by Value Line,
- 11 ♦ Historic retention growth,
- 12 ♦ Historic earnings per share growth, historic dividends per share growth, and historic book value per
13 share growth reported by Value Line, and
- 14 ♦ Witness Allen's own calculation of historic growth in earnings per share, dividends per share and book
15 value per share.

16 Subsequent to the collection of these growth rates, the focal point of the analysis turns to the
17 interpretation of this information and a determination regarding what information is most influential in
18 forming investors' expectations about future long-term sustainable growth.

1 Q. WHAT GROWTH RATES CARRY THE MOST WEIGHT IN WITNESS ALLEN'S GROWTH
2 RATE ANALYSIS?

3 A. While all growth rates have been examined by the witness, the greatest level of emphasis in terms of
4 forming an overall DCF cost of equity for his 'comparable' companies is projected retention growth and
5 projected earnings per share growth (both the Thompson summary information on professional
6 analysts' earnings per share growth estimations and Value Line's earnings per share growth estimates).
7 Mr. Allen also placed an emphasis on projected book value per share growth rates in making his final
8 determinations.

9 Q. WITNESS DUNN STATES IN REBUTTAL TESTIMONY THAT MR. ALLEN "INCLUDES
10 DIVIDEND PER SHARE GROWTH IN THE CALCULATION" OF HIS GROWTH RATE
11 ANALYSIS. IS THIS CORRECT?

12 A. No. Witness Dunn is incorrect if his assertion is that Mr. Allen used historic dividends per share growth
13 to establish his cost of equity recommendation in this proceeding. While, as discussed previously, the
14 witness certainly calculates historic dividend per share growth (it would be remiss not to do so), this
15 measure of historic growth does not become a part of Mr. Allen's recommendation regarding the cost of
16 equity (witness Dunn also shows historic and projected dividend growth in his analysis). Instead, the
17 focus of Mr. Allen's growth rate determination is primarily upon projected retention and projected
18 earnings per share growth.

19 Q. WHAT IS THE AVERAGE GROWTH RATE FINDING FOR WITNESS ALLEN'S 'PROXY'
20 GROUP?

1 A. Witness Allen's testimony shows a low estimate this was dismissed by the witness, a projected
2 retention growth of 4.62 percent and a high end of the range determination of investor expected
3 growth of 4.94 percent.

4 Q. HOW DOES THIS COMPARE TO THE AVERAGE EARNINGS PER SHARE GROWTH
5 PROJECTED BY PROFESSIONAL ANALYSTS AND REPORTED BY THOMPSON?

6 A. The Thompson projected earnings per share growth average for witness Allen's 'proxy' group is
7 4.38 percent. The projected earnings per share growth rate average for the group determined by
8 taking the average of Value Line and Thompson is 4.97 percent. Witness Allen's finding of 4.62-
9 4.94 percent is certainly consistent with these analysts' projected earnings growth estimates.

10	Mr. Allen's Growth Rate Determination	4.62% to 4.94%
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11	Thompson Average Projected Earnings Growth Rate	4.38%
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12	Average of Value Line & Thompson Projected Earnings Growth	4.97%
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13 Q. WHY ARE YOU EMPHASIZING THAT MR. ALLEN'S GROWTH RATE FINDINGS ARE
14 CONSISTENT WITH PROJECTED EARNINGS PER SHARE GROWTH ESTIMATED BY
15 PROFESSIONAL ANALYSTS?

16 A. Because witness Dunn (in Direct testimony) and Roger Morin (in Rebuttal) would seem to indicate
17 that projected earnings growth is the primary determinant of investors' growth rate expectations.

18 "Now and in the future....dividends will be replaced by overall growth in earnings as a
19 significant component of the DCF calculation" (Dunn Direct, p. 34)

1 “...there is an abundance of evidence attesting to the importance of earnings in assessing
2 investors expectations. First, the sheer volume of earnings forecasts available from the investment
3 community relative to the scarcity of dividend forecasts attests to their importance. To illustrate,
4 Value Line, Zacks Investment, First Call Thompson, and Multex provide comprehensive
5 compilations of investors’ earnings forecasts, to name some. The fact that these investment
6 information providers focus on growth in earnings rather than growth in dividends indicates that the
7 investment community regards earnings growth as a superior indicator of future long-term growth”
8 (Morin Rebuttal, p. 25)

9 Q. WHAT WAS THE PROJECTED EARNINGS PER SHARE GROWTH OF WITNESS DUNN’S
10 ‘PROXY’ GROUP AS MEASURED BY THOMPSON? ALSO, WHAT WOULD BE THE
11 RESULTING DCF COST OF EQUITY FOR THE GROUP?

12 A. Witness Dunn’s ‘proxy’ group, though different from Mr. Allen’s in composition, has an average
13 projected earnings per share growth rate as reported by Thompson of 4.9 percent (Dunn Direct, p.
14 43). Taking the dividend yield calculated in witness Dunn’s Direct testimony (without the flotation
15 cost adjustment) and the Thompson average expected earnings per share growth rate of 4.9 percent
16 indicates an investor required rate of return for the group of 9.5 percent (4.6% dividend yield +
17 4.9% expected growth).

18 Q. WHAT GROWTH RATE DOES WITNESS DUNN ADVOCATE IN HIS ANALYSIS?

19 A. Witness Dunn uses a growth rate range of 6.0 percent to 7.0 percent to calculate a return on equity
20 requirement for his ‘proxy’ group (Dunn, p. 50).

1 Q. DOES THERE APPEAR TO BE AN APPROPRIATE LEVEL OF SUPPORT IN DIRECT
2 TESTIMONY FOR DUNN'S GROWTH RATE ASSERTION OF 6-7 PERCENT FOR HIS
3 PROXY GROUP?

4 A. No there does not. This is particularly true since the witness advocates projected earnings growth
5 as a measure of investors' expectations and then discards the most thorough and reliable source of
6 projected earnings growth contained in his testimony. The analysis lacks a logical connection
7 between the growth rate data reviewed by witness Dunn and the opinion that a 6.0 or 7.0 percent
8 growth rate should be used in the DCF. Instead of providing some sort of logical nexus, witness
9 Dunn 'mechanistically' picks a high growth rate and offers that as a proxy for investors'
10 expectations.

11 Q. ISN'T A CERTAIN DEGREE OF SUBJECTIVITY INHERENT IN THE ANALYSIS OF
12 INVESTORS' EXPECTATIONS?

13 A. Yes. In the analysis of investors' expected return a certain degree of subjectivity is absolutely
14 inherent. However, it is the market that sets the cost of capital not the analyst. When employing
15 the DCF model, it is the analyst's job to determine the rate of long-term sustainable growth actually
16 expected by investors and to combine that growth rate with the dividend yield so that a reasonable
17 estimate of the marginal cost of equity can be determined. If the analyst simply chooses a growth
18 rate because it seems reasonable or appropriate to them without disciplined adherence to a logical
19 basis, almost any result can be produced.

20 Q. FOR RATE OF RETURN TESTIMONY TO HAVE MERIT SHOULD THERE BE STRONG
21 PRACTICAL SUPPORT FOR THE SELECTION OF GROWTH RATES AND A

1 REASONABLE LINK BETWEEN THE EVIDENCE PRESENTED AND THE FINAL
2 RECOMMENDATION?

3 A. Absolutely. For rate of return testimony to have merit there must be strong practical support for the
4 selection of a growth rate and a reasonable link between the evidence presented and the rate of
5 return recommendation offered. This disconnect in the testimony of witness Dunn, I believe, casts a
6 doubt as to whether the witness has made a genuine attempt to accurately measure the marginal rate
7 of return required by investors in his 'proxy' group of companies.

8 Q. DO YOU BELIEVE THAT PROJECTED EARNINGS GROWTH IS AN APPROPRIATE
9 MEASURE OF INVESTORS' LONG-TERM SUSTAINABLE GROWTH EXPECTATIONS?

10 A. I believed analysts' projected earnings growth should always be considered in conjunction with the
11 analysis of other growth rates, including the retention growth rate. I also believe they are superior
12 to historic growth in most instances. However, while they are an important component of investor-
13 expected growth, analysts' projected earnings estimates do have some limitations and shortcomings.
14 Due to these drawbacks, sole reliance on analysts' projections of earnings growth is not an
15 appropriate surrogate for determining the investors' long-term, sustainable growth rate required by
16 the DCF Model. This is why the examination of retention growth and other measures is so critical
17 to a complete DCF analysis.

18 Q. WHAT ARE THE DRAWBACKS ASSOCIATED WITH SOLE RELIANCE ON ANALYSTS'
19 PROJECTED EARNINGS GROWTH RATES?

1 A. I will discuss the problems with sole reliance on analysts' estimates of projected earnings growth,
2 but first I would like to point out that Mr. Allen engages in a fairly thorough discussion of this topic
3 in Appendix H of his Direct testimony (beginning on page 33).

4 As witness Allen points out, growth estimates derived from earnings alone can be unreliable for
5 ratemaking purposes due to external influences on this variable (such as a short-term projected
6 increase in the earned return on equity) that cause it to be unreflective of the long-term sustainable
7 growth rate called for in the DCF analysis. Specifically, if a company is entering a period where the
8 expected earned return on equity is expected to increase from current levels (maybe to a more
9 normalized pattern) the five-year projected earnings growth rates from analysts will tend to
10 overstate long-term sustainable growth. Likewise, if earned returns on equity are expected to
11 decrease from a current (above trend), analysts' projected five-year earnings growth can understate
12 long-term expectations. Changes in the dividend payout ratio can also have a significant influence
13 on earnings growth over an interim period of time. Over longer periods, these key variables to
14 sustainable growth tend to be relatively stable, but they can fluctuate meaningfully over a period of
15 five years.

16 Analysts' projected five-year earnings growth is just that: an estimate in the expected increase in
17 earnings over a period of five years. This may or may not be reflective of expected long-term
18 growth. Furthermore, analysts who make five-year earnings projections are not suggesting that this
19 is the rate of growth that should be used by investors in a single stage DCF analysis to determine an
20 expected return. It is, as stated, simply the expected growth in earnings per share over the coming
21 five- years.

1 Sole reliance on analysts' five-year projected earnings growth does not allow for a reasonable
2 assessment of the assumptions embedded in those estimates or the methodologies used to derive
3 them. Critical components of a growth rate estimate, like the assumed dividend payout ratio or the
4 assumed return on stockholder equity cannot be assessed since this information is not available. A
5 cost of capital witness who relies solely on this measure of projected growth forfeits his judgment
6 to assess whether or not these growth rates are reflective of investor long-term sustainable growth
7 expectations.

8 Q. IS THERE A BETTER WAY TO ASSESS FUTURE GROWTH?

9 A. Yes there is. Examining analysts' projected earnings per share growth in conjunction with a
10 thorough projected retention (or sustainable) growth rate analysis is much more insightful, thorough
11 and professional than failing to examine both growth rates in tandem. OPC witness Allen, unlike
12 witness Dunn, has performed this type of analysis.

13 Q. CAN YOU PROVIDE AN EXAMPLE OF A PROFESSIONAL ANALYST PLACING
14 EMPHASIS ON THE PRODUCT OF THE RETENTION RATE AND THE RETURN ON
15 EQUITY?

16 A. Yes. The A.G. Edwards' Gas Utilities Quarterly Review, April 5, 2004 (p. 13) states,
17 "We estimate long-term earnings growth for gas utility stocks to be 3% to 5% annually. Our
18 projection assumes an average dividend payout of approximately 50% to 70% and estimated earned
19 return on equity of 10% to 12%."

20 Q. IS THERE SUPPORT IN THE FINANCIAL LITERATURE FOR THE USE OF THE GORDON
21 MODEL AND RETENTION GROWTH RATE METHOD?

1 A. Yes. The quotes that follow were taken from Analysis of Equity Investments: Valuation by Stowe,
2 Robinson, Pinto and McLeavey, 2002. This text was created in conjunction with the *Association*
3 *for Investment Management and Research (AIMR)* to produce a set of comprehensive, and
4 practitioner-oriented textbook readings designed for the three levels of the Chartered Financial
5 Analyst (CFA) Program. The Association for Investment Management and Research is one of the
6 most respected investment organizations in the world.

7 “The Gordon growth model, developed by Gordon and Shapiro (1956) and Gordon (1962), assumes
8 that dividends grow indefinitely at a constant rate. This assumption, applied to the general dividend
9 discount model, leads to a simple and elegant valuation formula that has been influential in
10 investment practice.” (pages 59-60)

11 “The Gordon growth model is one of the most widely recognized equations in the field of security
12 analysis.” (p. 60)

13 “Under the assumption of efficient prices, the Gordon growth model is frequently used to estimate a
14 stock’s expected return given the stock’s price and expected growth rate.” (p. 66)

15 “...we have implicitly used the relationship that the dividend growth rate (g) equals the earnings
16 retention ratio (b) times the return on equity ROE.” (p. 83)

17 “We define the **sustainable growth rate** as the rate of dividend (and earnings) growth that can be
18 sustained for a given level of return on equity, keeping the capital structure constant over time and
19 without issuing additional common stock. The reason to study this concept is that it can help us
20 estimate the stable growth rate in a Gordon growth model valuation, or the mature growth rate in a
21 multistage DDM in which we use the Gordon formula for the terminal value of the stock. The
22 expression to calculate the sustainable growth rate is

23
$$G = b \times ROE$$

24 Where

(g) = dividend growth rate

(b) = earnings retention rate (1 – Dividend payout ratio)

ROE = return on equity.” (pages 83-84)

As another example, Reilly (Investment Analysis and Portfolio Management, 1994, p. 401-402) states the following:

“After arriving at a required rate of return, the investor must estimate the growth rate of earnings and dividends, because the valuation models for common stock depend heavily on good estimates of this value.”

“The growth rate in dividends is determined by the growth rate of earnings and the proportion of earnings paid out in dividends (the payout ratio). Over the short-run, dividends can grow faster or slower than earnings if the firm changes its payout ratio. Specifically, if a firm’s earnings grow at 6 percent a year and it pays out exactly 50 percent of earnings in dividends, then the firm’s dividends will likewise grow at 6 percent a year. Alternately, if a firm’s earnings grow at 6 percent a year and the firm increases its payout, then during the period when the payout ratio increases dividends will grow faster than earnings. In contrast, if the firm reduces its payout ratio, dividends will grow slower than earnings for a period of time. Because there is a limit to how long this difference in growth rates can continue, most investors make the long-run assumption that the dividend payout ratio is fairly stable. Therefore, the analysis of the growth rate of dividends is really an analysis of the growth rate of equity earnings.

When a firm retains earnings and acquires additional assets, if it earns some positive rate of return on these additional assets, the total earnings of the firm will increase because its asset base is larger. How rapidly earnings increase depends on (1) the proportion of earnings it retains and reinvests in new assets and (2) the rate of return it earns on these new assets. Specifically, the growth rate (g) of equity earnings (i.e., earnings per share) without any external financing is equal to the percentage of

1 net earnings retained (the retention rate, which equals 1 – the payout ratio) times the rate of return
2 on equity capital.

$$(g) = (\text{Retention Rate}) \times (\text{Return on Equity})$$

$$= \text{RR} \times \text{ROE}$$

5 Therefore, a firm can increase its growth rate by increasing its retention rate (reducing its payout
6 ratio) and investing these added funds at its historic ROE. Alternately, the firm can maintain its
7 retention rate, but increase its ROE. As an example, if a firm retains 50 percent of net earnings, and
8 consistently has a ROE of 10 percent, its net earnings will growth at the rate of 5 percent a year...”

9 Q. SOME COST OF CAPITAL ANALYSTS ARGUE THE RETENTION GROWTH RATE
10 METHOD IS FLAWED BECAUSE IT IS CIRCULAR TO CONSIDER ROE’S WHEN SETTING
11 THE AUTHORIZED RETURN. DOES THIS ARGUMENT DIMINISH THE USEFULNESS OF
12 THE RETENTION GROWTH RATE METHOD?

13 A. No. Similar misguided logic would apply to the use of analysts’ projected earnings per share
14 growth rates to determine the rate of growth expected by investors. This is because authorized rates
15 of return do influence analysts’ forecasts of future growth and, therefore, are very influential in
16 determining investor expectations.

17 For example, professional analysts may project earnings per share growth for a gas distribution
18 utility of (let’s say) 6 percent based in part upon the most recent authorized (and earned) rate of
19 return of (let’s say) 12 percent. Further assume that the current stock price for this utility is \$25 per
20 share, the expected dividend is \$1 and the resulting dividend yield is 4 percent (\$1/\$25).

1 If this particular gas distribution utility is currently engaged in a regulatory rate proceeding where
2 the cost of equity is being measured by cost of capital witnesses, a conclusion could be drawn that
3 the current investor required return is 10 percent as measured by the DCF approach (4% dividend
4 yield plus 6% expected growth rate). If the 10 percent DCF cost of equity becomes the new
5 authorized (and earned) rate of return for the utility, the professional analysts who originally
6 estimated 6 percent earnings per share growth may revise their estimates based upon this new
7 information. Based upon the new expectation of an authorized and earned return on equity of 10
8 percent, the analysts could lower their growth rate expectations to, let's say, 5 percent.

9 In this instance, the incorporation of analysts' projected earnings growth rates in the DCF model
10 used to set the authorized rate of return resulted in a change in the authorized rate of return that
11 subsequently led to the revision of the analysts' projected earnings per share growth estimates.
12 Additionally, the analysts' reliance on the then current 12 percent authorized and earned return for
13 the company resulted (in part) in the 6 percent earnings per share growth estimate that was then
14 incorporated into the analysis by the regulatory body that led to the new authorized return of 10
15 percent. This does not, however, imply that it is inappropriate to utilize analysts' projected earnings
16 per share growth estimates because it is circular to do so. It also does not imply that the whole
17 regulatory process of setting an allowed rate of return is flawed.

18 One of the primary reasons the process does work is because the DCF model, when applied
19 appropriately, results in a market derived cost of equity determination. In the example, if all else
20 remains the same (including investors' risk expectations and required rate of return), when
21 investors' growth rate expectations were lowered from 6 percent to 5 percent that new information
22 became embedded rapidly in stock prices. Again, assuming investors' risk perceptions and required

1 return did not adjust over the period, the likely result is that the stock price decreased, let's say to
2 something like \$20 per share, and the corresponding dividend yield rose to 5 percent (\$1/\$20). The
3 cost of equity as measured by a market-derived DCF would remain the same at 10 percent (5%
4 dividend yield + 5% expected growth rate).

5 The same mechanism holds true when the retention growth rate method is used and applied
6 appropriately. The stock price (the key element of the DCF analysis) becomes the mechanism that
7 allows for an appropriate determination of the cost of equity. This holds true regardless of the
8 growth rate method utilized as long as that method reflects investors' expectations. Therefore, the
9 argument of circularity does not undermine the retention growth rate method, or the use of analysts'
10 projected earnings per share growth.

11 **RESPONSE TO WITNESS MORIN REGARDING THE USE OF THE DCF METHOD**

12 Q. WITNESS MORIN IS CRITICAL OF THE ANALYSIS PERFORMED BY STAFF WITNESS
13 MURRAY DUE TO ITS "INAPPROPRIATE RELIANCE ON A SINGLE METHOD." WHAT
14 ARE YOUR COMMENTS?

15 A. Witness Morin suggests (page 9) that Mr. Murray inappropriately relies on a single method, the
16 DCF model, to estimate the cost of common equity. Witness Morin states (p. 38) that, "Under
17 normal circumstances, the required return on equity should be estimated with three equally-
18 weighted methodologies: (1) the CAPM, (2) the Risk Premium, and (3) the DCF methodologies."
19 Witness Morin goes on to say (p. 4) that reliance on the DCF "stands in sharp contrast with the cost
20 of capital estimation practices of investment analysts, finance experts, corporate analysts, and

1 finance professionals” and that an exclusive reliance on the DCF method is “an approach at odds
2 with recognized standards for cost of capital analysis.”

3 The characterization of Mr. Murray’s testimony is not entirely accurate and extremely ironic given
4 the fact that Company witness Dunn is the only cost of capital witness filing Direct testimony in
5 this proceeding that did not perform any analysis other than the DCF. While Commission Staff
6 witness Murray appropriately places the greatest level of emphasis on DCF results, the Staff
7 witness **does** perform a CAPM analysis and a risk premium analysis (witness Morin recognizes this
8 fact in other sections of his testimony). Likewise, OPC witness Allen conducts a CAPM study in
9 his Direct testimony. In contradiction, the only cost of capital witness that does not perform either a
10 CAPM or risk premium analysis is Southern Union’s own expert, Mr. Dunn.

11 The following is taken from witness Morin’s testimony:

12 Q. ...ARE YOU AWARE THAT SOME REGULATORY COMMISSIONS AND SOME ANALYSTS
13 HAVE PLACED PRINCIPAL RELIANCE ON DCF-BASED ANALYSES TO DETERMINE THE
14 REQUIRED RETURN ON EQUITY FOR PUBLIC UTILITIES?

15 A. Yes, I am. I point out that Mr. Murray is indeed one such analyst

16 Apparently, witness Morin fails to appreciate that the only Southern Union cost of capital witness
17 with a formal recommendation in this proceeding, Mr. Dunn, is also one such analyst.

18 Q. HAS THIS COMMISSION GENERALLY BEEN SUPPORTIVE IN THE PAST OF THE DCF
19 METHOD AS THE PRIMARY MEANS TO ESTABLISH INVESTOR REQUIRED RETURNS?

1 A. Yes. In past cases this Commission has discussed the merits of various rate of return
2 methodologies, while ultimately finding the DCF approach to be the most reasonable.

3 “The Commission has considered the various methods proposed by financial analysts in other cases
4 and has found that the constant growth DCF method consistently provides an ROE that is
5 reasonable and reflects the conditions faced by a regulated entity.” (Report and Order, Case No.
6 TC-93-224, et al., p. 111).

7 “Risk premium analyses...do not produce results which are as reasonable. Although risk premiums
8 may, as the Commission has said, be based upon appropriate theory, they are not subject to any
9 reasonable calculation.” (Report and Order, Case No. TC-93-224, et al., p. 114).

10 **AUTHORIZED ROE’S FROM OTHER JURISDICTIONS ARE NOT THE PROPER**
11 **BENCHMARK TO ESTABLISH THE ALLOWED RETURN ON COMMON EQUITY**

12 Q. WHAT ARE YOUR COMMENTS REGARDING STATEMENTS MADE BY THE COMPANY
13 WITNESSES ABOUT AUTHORIZED ROE’S IN OTHER JURISDICTIONS?

14 A. Witness Morin states (p. 5) that, “Mr. Murray’s recommended ROE lies well outside the zone of his
15 own comparable companies’ authorized ROEs. These are clear indications that his return on equity
16 recommendation for MGE is too low.” Witness Dunn takes this argument one step further (Dunn
17 Rebuttal, p. 5), “This brings into sharp focus the fact that the recommendations of both the Public
18 Counsel and Staff in this proceeding are out of step with decisions of other regulatory authorities,
19 and should be rejected by the Commission on this basis alone.” (Emphasis added).

20 To suggest that cost of capital testimony should be rejected on the single basis that it differs from
21 the determinations of other regulatory bodies is unfounded and serves only to cast a cloud of doubt

1 regarding the willingness of the witness to address the primary issue of making a reasonable
2 determination of investor required rates of return.

3 It is reasonable for regulators to believe that, while authorized ROE's from other states are
4 appropriate for examination, they should be given little (if any) merit for use in the process of
5 establishing the cost of equity capital. A properly performed and supported DCF analysis, used in
6 conjunction with other reasonably applied methods, that accurately captures investors' current
7 return requirements is the most appropriate basis for the establishment of a return on equity
8 determination.

9 Q. ARE THERE REASONS WHY ROE'S MAY VARY?

10 A. Yes. Authorized ROE's may be very different from the current return requirements of investors for
11 numerous reasons and are, therefore, of little value in accurately determining the return
12 requirements of investors. The fact that a cost of equity estimation (such as that performed by Mr.
13 Murray) is above or below the authorized ROE for a specific company does not, by itself, provide
14 useful information about whether or not that estimation is in line with investor return requirements.
15 The circumstances surrounding the determination of the allowed returns in other states are not
16 known and, from a practical standpoint, are not knowable.

17 Q. IS THERE AN EXAMINATION METHOD THAT IS MORE MEANINGFUL?

18 A. Yes. Examining earned (and authorized ROE's) in conjunction with an examination of the ratio
19 between market price and book value does provide meaningful insight into investor return
20 requirements. The reality that most gas distribution utilities, including those in Mr. Murray's

analysis, have market-to-book ratios meaningfully above 1.0x is an indication that earned returns on equity (and by extension, authorized ROE's) are generally above current equity investor required returns.

Q. PLEASE EXPLAIN THE SIGNIFICANCE OF MARKET-TO-BOOK RATIOS AND THE RELATIONSHIP WITH RETURN ON EQUITY.

A. Market-to-book (MTB) ratios provide useful information concerning the relationship between investors' return expectations and the actual cost of capital. Generally, for a regulated utility, when the MTB ratio is greater than one, the earned or expected earned return on equity is greater than the actual cost of capital (i.e., the investors' required rate of return).

Q. PLEASE EXPLAIN WHY THE REQUIRED RATE OF RETURN AND THE ACTUAL OR PROJECTED RETURNS ON EQUITY ARE OFTEN UNEQUAL.

A. The required rate of return is the return necessary to compensate an investor for making an initial or continued investment in a specific security. The actual (or projected) earned return on equity for a given company is simply the current (or projected) net income available for common equity divided by the total common equity outstanding.

For regulated utilities, earned returns on equity are influenced, in part, by regulatory bodies that set an authorized return on rate base. While, under regulation, authorized returns on common equity are established by looking to the capital markets and through analyzing investors' return requirements, it is inappropriate to assume that, at any given point in time, earned or authorized returns accurately reflect capital costs. The reasons for this disparity are numerous.

1 Q. WHAT DO CURRENT MARKET-TO-BOOK RATIOS FOR GAS DISTRIBUTION UTILITIES
2 INDICATE?

3 A. Current market-to-book ratios for gas distribution utilities generally, and for Mr. Murray's proxy
4 group, indicate that capital costs are below the level of earned or expected returns. For example,
5 Value Line estimates the current return on equity for the gas distribution companies it follows to be
6 10.0% and the expected return on equity to be between 10.0% and 10.5% for the group as a whole.
7 The fact that market-to-book ratios for the group are substantially greater than 1.0x is a good
8 indication that current equity capital costs are generally less than 10.5% for the group.

9 Q. IS THERE SUPPORT IN THE FINANCIAL LITERATURE FOR THE RELATIONSHIP
10 BETWEEN MARKET PRICE-TO-BOOK RATIOS AND THE INVESTORS' REQUIRED RATE
11 OF RETURN ON EQUITY?

12 A. Yes. In his seminal book, The Cost of Equity to a Public Utility, (1974), Dr. Gordon explains the
13 relationship between market price, book value, allowed (or, expected) return on equity, and the cost
14 of capital for a public utility. According to Dr. Gordon, when the market-to-book ratio is greater
15 than (equal to, less than) one, the ratio of the allowed (or, expected) rate of return to the cost of
16 capital is greater than (equal to, less than) one. In other words, if market prices are greater than
17 book value, the market price-to-book ratio exceeds one and the expected book equity returns (and
18 likely the authorized ROE's) exceed the actual cost of equity capital.

19 Q. PLEASE SUMMARIZE YOUR COMMENTS REGARDING THE USEFULNESS OF WITNESS
20 DUNN'S AND WITNESS MORIN'S STATEMENTS REGARDING AUTHORIZED ROE'S.

1 A. Despite statements to the contrary made by witness Dunn and witness Morin, the fact that
2 authorized ROE's for Murray's comparable group are below his estimation of their cost of equity
3 does not provide solid evidence that his findings are below the current investor required return for
4 these companies. In fact, looking at market-to-book ratios in combination with earned and expected
5 returns for the group would suggest these companies are expected to earn a return above their
6 current cost of capital.

7 **A FLOTATION COST ADJUSTMENT IS UNNECESSARY**

8 Q. DO YOU AGREE WITH THE COMPANY WITNESSES THAT A FLOTATION COST
9 ADJUSTMENT SHOULD BE INCLUDED IN THE DCF COST OF EQUITY CALCULATION?

10 A. No. I agree with the testimony of OPC witness Allen (Rebuttal pages 15-17) regarding why a
11 flotation cost adjustment is unnecessary. In addition, I would like to expand on the rationale for
12 rejecting the Company's proposed flotation cost adjustment to the DCF model.

13 Q. PLEASE DO SO.

14 A. As witness Allen correctly notes, underwriters' fees represent the largest component of 'flotation
15 costs' and are not an out of pocket cost for a utility. Investors are well aware that a portion of the
16 proceeds from stock issuances goes to the underwriter, not the issuer. This information is already
17 built into the price that investors are willing to pay for a utility's common stock and is therefore
18 already embedded into the market derived dividend yield portion of the DCF. As a result, no
19 additional allowance for their recovery is necessary.

1 The fallacy regarding flotation cost adjustments is put into sharper focus when one extends the
2 empty logic to other costs associated with stock transactions in the secondary market. Rate of
3 return witnesses who advocate a flotation cost adjustment to recover underwriters' fees are in effect
4 suggesting a very low level of sophistication by investors. Witnesses Dunn and Morin are
5 essentially implying that investors evaluate an investment in common stock solely on the basis of
6 what they pay. However, while working under this assumption, the witnesses are selectively
7 recognizing certain variables while ignoring others.

8 Q. WHAT VARIABLES ARE WITNESS DUNN AND MORIN IGNORING?

9 A. Specifically, brokerage fees that are charged in the secondary markets are not considered. While
10 underwriters' fees occur with an initial issue of stock, investors must pay brokerage fees in the
11 much larger secondary market. These brokerage fees raise the total price paid for a share of stock
12 above the price quoted in financial publications and above the price used by cost of capital
13 witnesses to calculate the dividend yield.

14 If brokerage costs were included in a DCF analysis, they would raise the stock price component of
15 the formula, lower the dividend yield, and lower the indicated cost of equity. Furthermore, while
16 underwriters' fees are incurred only at the time of offering and the percent of equity impacted is
17 generally small, brokerage fees apply to all of a company's stock that is continually traded in the
18 secondary markets. While I do not recommend this approach, it seems reasonable that if
19 underwriters' fees should be recognized in a cost of capital analysis, brokerage costs should also be
20 recognized. The recognition of brokerage costs, however, would most likely offset underwriters'
21 fees. These arguments suggest the inclusion of a flotation cost adjustment should be rejected.

1 Q. WITNESS DUNN ARGUES THAT A FLOTATION COST ADJUSTMENT IS WARRANTED
2 BECAUSE A POTENTIAL UPCOMING STOCK OFFERING WILL BENEFIT RATEPAYERS.
3 IS THIS A VALID RATIONALE FOR THE FLOTATION COST ADJUSTMENT?

4 A. No. In Rebuttal witness Dunn states that MGE customers will benefit from SUG's common stock
5 offering (p. 41): "...the bond rating of Southern Union will be preserved and because lower bond
6 ratings lead to higher costs of debt, a savings will be realized."

7 This argument is a curious one given the witness's knowledge of the Stipulation & Agreement in
8 the merger case (Case No. GM-2003-0238):

9 "Southern Union will not recommend an increase or claim Staff should make an adjustment to
10 increase the cost of capital for MGE as a result of the Transaction. Any increases in cost of capital
11 Southern Union seeks for MGE will be supported by documented proof: (1) that the increases are a
12 result of factors not associated with the Transaction; (2) that the increases are not a result of
13 changes in business, market, economic or other conditions for MGE caused by the Transaction; or
14 (3) that the increases are not a result of changes in the risk profile of MGE caused by the
15 Transaction."

16 If SUG had not acquired PEPL and taken on approximately \$1.2 billion in additional debt, a stock
17 offering would likely not be required to 'preserve' the Company's bond rating. Specifically,
18 according to witness Dunn,

19 "S&P's Utility Group Financial Target benchmark ratios, revised June 21, 1999, indicate that the
20 total debt to total capital ratio required by S&P of a public utility with bonds rated in the BBB bond
21 rating category and a business position of "4" ranges from 49.5% to 57% ..." (Dunn, Rebuttal, p.
22 13).

1 Ironically, the capital structure recommended by witness Dunn that he describes as “the Southern
2 Union capital structure excluding the impact of Panhandle Eastern” (Rebuttal, p. 16) and
3 “consistent with the Commission’s Order approving the Panhandle Eastern acquisition” contains
4 less long term debt (47.2% to be exact) than the 49.5% to 57% range that the witness attributes to
5 S&P as appropriate for a BBB rated public utility. This highlights, again, the likelihood that an
6 additional stock offering would be unnecessary to ‘preserve’ SUG’s bond rating absent the
7 acquisition of PEPL.

8 **INCREASING THE YIELD BY ONE PLUS THE ENTIRE GROWTH RATE IS**
9 **UNNECESSARY**

10 Q. DO YOU AGREE WITH WITNESS MORIN’S AND WITNESS DUNN’S STATEMENTS
11 ALLEGING THE APPROPRIATE DIVIDEND COMPONENT IN THE DCF IS THE CURRENT
12 DIVIDEND YIELD INCREASED BY THE FULL EXPECTED GROWTH RATE?

13 A. No, I do not agree. In fact, simply taking the next annualized dividend (with no increase for
14 growth) is viewed by some as an appropriate method. However, even though Dr. Gordon, in his
15 seminal book The Cost of Capital to a Public Utility (p. 81) maintains that the appropriate dividend
16 term is found by taking the next quarterly dividend on an annualized basis, I believe the most
17 agreeable method is to increase the current annualized dividend by one-half of the investor expected
18 growth rate. This methodology results in a reasonable estimate of the level of dividends to be paid
19 in the coming year and represents the method employed by OPC witness Allen.

20 Q. WHAT IS THE RESULT OF INCREASING THE ANNUALIZED DIVIDEND BY ONE-HALF
21 OF THE INVESTOR EXPECTED GROWTH RATE?

1 A. For Mr. Allen, application of this approach led to an increase in the current dividend yield of 2.31-
2 2.47 percent (one-half of his investor expected growth rate). It should be noted, this is a larger
3 increase to the current dividend than the one proposed by witness Dunn in this proceeding. Dunn
4 increased the current dividend by 2.0 percent (Dunn Direct, p. 48).

5 Q. PLEASE EXPLAIN HOW THE METHOD ADVOCATED BY WITNESSES DUNN AND
6 MORIN NEEDLESSLY INFLATES THE ALLOWED RETURN?

7 A. A simple example illustrates how increasing the current annualized dividend by the full growth rate
8 (as proposed by Dunn and Morin) serves to overstate the necessary allowed return. First, assume
9 that a hypothetical utility has a beginning year book value and stock price of \$20 per share. In
10 addition, assume the quarterly dividend has just been raised to \$0.25 and the expected growth rate is
11 6 percent. Under Dr. Gordon's methodology, the cost of common equity is 11 percent $[(\$0.25 \times 4) /$
12 $\$20 + 6\% = 11\%]$. Under the company's proposed method, the cost of equity is 11.3 percent
13 $[((\$0.25 \times 4) \times 1.06 \text{ gr.}) / \$20 + 6\% = 11.3\%]$.

14 Assume the utility is allowed a return on common equity of 11.3 percent. The earnings per share in
15 the first year equals the allowed (earned) equity return times the initial book value, or \$2.26 $(\$20 \times$
16 $11.3\% = \$2.26)$. From the earnings, a dividend of \$1.0 will be paid $(\$0.25 \times 4 = \$1.0)$, leaving
17 \$1.26 per share in retained earnings $(\$2.26 - \$1.0 = \$1.26)$. The addition to retained earnings
18 causes the book value at the end of the first year to be \$21.26 $(\$20 + \$1.26 = \$21.26)$. The resulting
19 growth in book value is 6.3% $(\$1.26 / \$20 = 6.3\%)$. This is greater than the initially assumed
20 growth rate of 6 percent used to establish rates.

Continuing the example to the second period shows that the differential between the growth rate used to set rates and the actual growth rate realized based on the faulty dividend yield determination widens. The earnings in the second period are \$2.40 ($\$21.26 \times 11.3\% = \2.40). The dividend, in year two, according to the original assumptions is \$1.06 ($\$1.0 \times 1.06 \text{ gr.} = \1.06). The retained earnings in period two are \$1.34 ($\$2.40 - \$1.06 = \1.34). Book value is then \$22.60 ($\$21.26 + \$1.34 = \22.60) at the end of the period. The growth in book value is 6.303 percent ($\$1.34 / \$21.26 = 6.303\%$). Again, the realized growth rate is above the growth rate used to establish rates.

In order to create equality between the realized growth rate and the investor-expected growth rate used to set the authorized return, the required retained earnings increment would be \$1.20 in year one ($\$20 \times 6\% = \1.20). Adding the dividend that will be paid in the first year (\$1.0) to the required retained earnings (\$1.20) yields \$2.20. This is the earnings necessary to produce the proper growth rate of 6 percent. Additionally, dividing these earnings by the initial book value produces an equity return of 11 percent ($\$2.20 / \$20 = 11\%$). This is the equity cost of capital derived by the DCF model in which the current annualized dividend was used. By extension, increasing the dividend by the full growth rates does nothing more than lead to a DCF cost of equity estimate that is above the level necessary for a utility to earn its actual cost of capital.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.