

**PEOPLES GAS SYSTEM**  
**BEFORE THE**  
**FLORIDA PUBLIC SERVICE COMMISSION**

**Docket No. 020384-GU**

**In Re: Petition of Peoples Gas  
System, For Authority to  
Increase Its Rates and Charges**

**Submitted for Filing:  
11/12/2002**

**REBUTTAL TESTIMONY:**

**DR. ROGER A. MORIN**  
**On Behalf of Peoples Gas System**

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1     **Q.     PLEASE STATE YOUR NAME, ADDRESS AND OCCUPATION.**

2

3     **A.**    My name is Dr. Roger A. Morin.   My business address is  
4           Georgia State University, Robinson College of Business,  
5           University Plaza, Atlanta, Georgia, 30303.     I am  
6           Professor of Finance at the College of Business, Georgia  
7           State University and Professor of Finance for Regulated  
8           Industry at the Center for the Study of Regulated  
9           Industry at Georgia State University.     I am also a  
10          principal in Utility Research International, an  
11          enterprise engaged in regulatory finance and economics  
12          consulting to business, regulators, and government.

13

14    **Q.     ARE YOU THE SAME DR. R. A. MORIN WHO HAS FILED RATE OF**  
15       **RETURN TESTIMONY IN THIS PROCEEDING?**

16

17    **A.**    Yes, I am.

18

19    **Q.     WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

20

21    **A.**    This testimony is in rebuttal to Mr. Cicchetti's (Office  
22           of the Public Counsel) cost of capital testimony.

23

24    **Q.     PLEASE SUMMARIZE MR. CICCHETTI'S RATE OF RETURN**  
25       **RECOMMENDATION.**

1  
2 **A.** In determining the cost of common equity capital for  
3 Peoples Gas System ("Peoples Gas" or the "Company"),  
4 which is an operating division of Tampa Electric Company,  
5 a subsidiary of TECO Energy Inc. ("TECO Energy"), Mr.  
6 Cicchetti applies a multi-stage DCF test to a group of  
7 publicly-traded natural gas utility companies using the  
8 "retention growth" approach in order to specify the long-  
9 term growth component of the DCF analysis. He also  
10 applies a DCF-based risk premium test to the same sample  
11 of natural gas distribution utilities. Based on the  
12 results of these two tests and an additional risk premium  
13 to recognize the higher relative risk of Peoples Gas, he  
14 recommends a return of only 10.1% on common equity  
15 capital.  
16  
17 **Q. DO YOU HAVE ANY GENERAL COMMENTS ON MR. CICHETTI'S**  
18 **TESTIMONY?**  
19  
20 **A.** Yes. Before I engage in specific criticisms of Mr.  
21 Cicchetti's testimony, I should set forth my general  
22 reaction to his testimony. His testimony is extremely  
23 narrow in scope, relying exclusively on the DCF approach  
24 and on one particularly fragile variant of the DCF  
25 approach, namely, the retention growth approach.

1           Mr. Cicchetti's cost of equity recommendation is not  
2           a reliable estimate of the Peoples Gas' cost of common  
3           equity capital given his sole reliance on one particular  
4           and very fragile cost of equity methodology which  
5           requires him to assume the answer before he even begins  
6           to implement the methodology. This very narrow approach  
7           stands in sharp contrast to the practices of investment  
8           analysts, finance experts, corporate analysts, and  
9           finance professionals. It is dangerous and inappropriate  
10          to rely on only one method, as Mr. Cicchetti has done.  
11          In addition, as I discuss later, the variant he utilizes,  
12          that is, the retention growth method, is extremely  
13          fragile conceptually and of questionable validity  
14          empirically.

15           I also find Mr. Cicchetti's recommended 10.1% cost  
16          of equity for Peoples Gas to be outside any zone of  
17          reasonableness and outside the zone of currently  
18          authorized rates of return for regulated utilities in the  
19          United States.           Mr. Cicchetti's cost of equity  
20          recommendation of 10.1%, if adopted, would result in one  
21          of the lowest rate of return awards for any utility in  
22          the country.

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24       **Q.   WHAT ARE THE BASIC CONCLUSIONS OF YOUR REBUTTAL TO MR.**  
25       **CICCHETTI'S COST OF EQUITY TESTIMONY?**

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**A.** Mr. Cicchetti's recommendation is highly unreliable as it hinges entirely on one variant of one particular methodology. Moreover, the one methodology that supports Mr. Cicchetti's recommendation is logically circular and empirically suspect. A proper application of cost of capital methodologies would give substantially higher results.

**Q. PLEASE SUMMARIZE YOUR SPECIFIC CRITICISMS OF MR. CICCHETTI'S TESTIMONY.**

**A.** I have the following specific criticisms:

1. **Unreliable estimate.** Mr. Cicchetti's cost of equity recommendation is unreasonably low, and is not a reliable estimate of Peoples Gas' cost of common equity capital given his sole reliance on one particular and very fragile cost of equity methodology.
2. **Allowed returns.** Mr. Cicchetti's recommended return is well outside the zone of currently allowed rates of return for energy utilities in the United States and for his sample of companies. The average allowed returns for electric and natural gas utilities so far in 2002 are approximately 11.2% and 11.3%, respectively, which exceed

1 by a significant margin Mr. Cicchetti's 10.1% recommended  
2 return for the Company.

3 3. DCF Retention Growth Method. Mr. Cicchetti's  
4 recommendation rests almost entirely on the retention  
5 growth DCF method, and there are serious logical  
6 inconsistencies in this particular method because **Mr.**  
7 **Cicchetti is forced to assume the answer to implement the**  
8 **method.** This method is the least valid, both  
9 empirically and theoretically.

10 4. DCF Analysts' Growth Forecasts. Mr. Cicchetti fails to  
11 use analysts' growth forecasts in his DCF analysis, even  
12 though the stock price he uses in his DCF analysis is  
13 predicated on such forecasts.

14 5. Risk Premium. Mr. Cicchetti's risk premium analysis of  
15 natural gas distribution utilities is merely a disguised  
16 version of his DCF result, and does not constitute an  
17 independent stand-alone methodology. As is the case for  
18 his retention growth DCF analysis, the DCF-driven risk  
19 premium method he has employed is highly circular. Mr.  
20 Cicchetti did not implement any of the traditional risk  
21 premium methodologies, such as the Capital Asset Pricing  
22 Model or historical Risk Premium analysis. Moreover, his  
23 own analysis and published works show much higher risk  
24 premiums currently than he has recommended.

1       6.   The appropriate capital structure for Peoples Gas.   Mr.  
2       Cicchetti's recommended capital structure is not  
3       supported by any rigorous analysis.

4               I will now discuss each criticism in turn. Because  
5       the crux of Mr. Cicchetti's testimony lies in his  
6       retention growth DCF analysis, a great deal of my remarks  
7       are devoted to his implementation of that particular  
8       method.

9  
10                               1. UNRELIABLE ESTIMATE

11   Q.   MR. CICCHETTI HAS LIMITED THE COST OF EQUITY ESTIMATION  
12       PROCESS TO ONE METHODOLOGY, NAMELY THE DCF METHOD. DOES  
13       THIS AFFECT THE RELIABILITY OF HIS RESULTS?

14  
15   A.   Yes, it does. The major problem in his testimony is the  
16       lack of corroborating evidence. There is simply no  
17       objective cross check on the result. The 10.1% cost of  
18       equity recommended by Mr. Cicchetti is unreasonably low,  
19       and is not a reliable estimate of Peoples Gas' cost of  
20       equity capital.

21  
22   Q.   DO YOU THINK THAT THE COST OF EQUITY SHOULD BE ESTIMATED  
23       BY THE DCF MODEL ALONE?

24   A.   No, it should not, and especially not with the retention  
25       growth version of the DCF approach. Some analysts

1 estimate the cost of common equity capital by relying  
2 heavily, and sometimes exclusively, on the DCF approach.  
3 The major difficulty of relying exclusively on the DCF  
4 methodology is the lack of corroborating evidence.

5 There are four broad generic methodologies available  
6 to measure the cost of equity: DCF, Risk Premium, and  
7 CAPM, which are market-oriented, and Comparable Earnings,  
8 which is accounting-oriented. Each generic market-based  
9 methodology in turn contains several variants. Mr.  
10 Cicchetti has chosen to rely on only one of the four  
11 methods, namely a variation of the DCF method known as  
12 the two-stage DCF model which he implements with the  
13 retention growth approach.

14 When measuring equity costs, which essentially deals  
15 with the measurement of investor expectations, no one  
16 single methodology provides a foolproof panacea. Each  
17 methodology requires the exercise of considerable  
18 judgment on the reasonableness of the assumptions  
19 underlying the methodology and on the reasonableness of  
20 the proxies used to validate the theory. It follows that  
21 more than one methodology should be employed in arriving  
22 at a judgment on the cost of equity and that these  
23 methodologies should be applied across a series of  
24 comparable risk companies.



1           There is no single model that conclusively  
2 determines or estimates the expected return for an  
3 individual firm. Each methodology possesses its own way  
4 of examining investor behavior, its own premises, and its  
5 own set of simplifications of reality. Each method  
6 proceeds from different fundamental premises which cannot  
7 be validated empirically. Investors do not necessarily  
8 subscribe to any one method, nor does the stock price  
9 reflect the application of any one single method by the  
10 price-setting investor. Absent any hard evidence as to  
11 which method outdoes the other, all relevant evidence  
12 should be used and weighted equally in order to minimize  
13 judgmental error, measurement error, and conceptual  
14 infirmities. I submit that the Commission should rely  
15 on the results of a variety of methods applied to a  
16 variety of comparable groups. There is no guarantee that  
17 a single DCF result is necessarily the ideal predictor of  
18 the stock price and of the cost of equity reflected in  
19 that price, just as there is no guarantee that a single  
20 CAPM or Risk Premium result constitutes the perfect  
21 explanation of that stock price.

22  
23 **Q. DOES THE FINANCIAL LITERATURE SUPPORT THE USE OF MORE THAN**  
24 **A SINGLE METHOD?**

1 **A.** Yes. The financial literature strongly supports the use  
2 of multiple methods.  
3

4 **2. ALLOWED RETURNS**

5 **Q. IS MR. CICCHETTI'S RATE OF RETURN RECOMMENDATION**  
6 **COMPATIBLE WITH CURRENTLY ALLOWED RETURNS IN THE UTILITY**  
7 **INDUSTRY?**  
8

9 **A.** No, it is not. Allowed returns, while certainly not a  
10 precise indication of a company's cost of equity capital,  
11 are nevertheless important determinants of investor  
12 growth perceptions and investor expected returns. They  
13 also serve to provide some perspective on the validity  
14 and reasonableness of Mr. Cicchetti's recommendation.

15 The average allowed returns in the utility industry,  
16 as reported by C.A. Turner Reports dated October 2002  
17 were 11.7%, 11.7%, and 11.8% for electric, combination  
18 gas and electric, and natural gas utilities,  
19 respectively. More recent orders indicate allowed  
20 returns in the 11.00% to 11.3% range. This far exceeds  
21 Mr. Cicchetti's recommended 10.1% for Peoples Gas. In  
22 short, Mr. Cicchetti's recommendation is outside the  
23 mainstream of currently allowed rates of return and would  
24 be among the lowest in the country.  
25



1 determination of equity costs. The advantage of using  
2 several different approaches in estimating growth is that  
3 the results of each one can be used to check the others.  
4 Moreover, the method chosen by Mr. Cicchetti is  
5 inherently circular and empirically unfounded.

6  
7 **Q. PLEASE DESCRIBE MR. CICHETTI'S IMPLEMENTATION OF THE**  
8 **RETENTION GROWTH METHOD.**

9  
10 **A.** It is important to point out that the retention growth  
11 estimate exerts a much stronger influence on Mr.  
12 Cicchetti's final DCF result than the intermediate growth  
13 rate assumed for the first five years, since it captures  
14 the effects of growth from the fifth year into  
15 perpetuity. It is therefore imperative that it be  
16 estimated accurately if the DCF results are to be  
17 reliable.

18 To apply the retention ratio growth method in his  
19 DCF analysis, Mr. Cicchetti multiplies the utility's  
20 expected retention ratio ("b") by the expected return on  
21 equity, "ROE":

$$22 \quad g = b \times \text{ROE}$$

23  
24 Mr. Cicchetti then assumes that investors obtain all  
25 their data from Value Line. The investor's expected ROE

1 is proxied by Value Line's forecast of ROE for 2006,  
2 which is 12.25% for his sample of natural gas utilities.

3 To compute the retention ratio, he takes the  
4 retention ratio forecast by Value Line as he did for the  
5 expected ROE. Mr. Cicchetti does not recognize any  
6 growth stemming from external financing through common  
7 stock issues in developing his retention growth estimate.  
8 As shown on Exhibit MAC-7 page 1, the average long-term  
9 growth rate for his sample of natural gas utilities is  
10 5.6%.

11  
12 **Q. DO YOU HAVE ANY OBJECTIONS TO THE RETENTION GROWTH**  
13 **ESTIMATES USED BY MR. CICHETTI?**

14  
15 **A.** Yes, I have several. Since Mr. Cicchetti's entire  
16 testimony and his 10.1% cost of equity recommendation  
17 hinge on the retention growth cornerstone, it is  
18 important to point out the dangers and flaws of this  
19 method. There are four fundamental problems with Mr.  
20 Cicchetti's retention growth methodology.

21  
22 **Q. PLEASE DISCUSS THE FIRST PROBLEM WITH MR. CICHETTI'S**  
23 **RETENTION GROWTH ESTIMATES.**

1   **A.**   Mr. Cicchetti's retention growth method contains a fatal  
2       logical flaw: the method requires an estimate of ROE to  
3       be implemented. In other words, his method requires him  
4       to assume the ROE answer to start with. But if the ROE  
5       input required by the model differs from the recommended  
6       return on equity, a fundamental contradiction in logic  
7       follows.

8           Mr. Cicchetti's recommended 10.1% return on equity  
9       is far removed from the ROE's he uses in the retention  
10      growth method. On his Exhibit MAC-7 page 1, he uses an  
11      average expected return ("ROE") of 12.25%, which is well  
12      above Mr. Cicchetti's recommended 10.1% return.

13           Mr. Cicchetti is assuming in effect that the natural  
14      gas utilities in his sample will earn an ROE exceeding  
15      his recommended cost of equity forever, but he is  
16      recommending that a different rate be granted by the  
17      Commission. While this scenario may be imaginable for an  
18      unregulated company with substantial market power that  
19      can earn more than its cost of capital, it is **implausible**  
20      **for a regulated company whose rates are set so that they**  
21      **will earn a return equal to their cost of capital.** I  
22      consider this logical flaw extremely damaging and  
23      sufficient to reject Mr. Cicchetti's results produced by  
24      the method, the crux of his testimony. In essence, **Mr.**  
25      **Cicchetti is using an ROE that differs from his final**

1       *recommended cost of equity, and is requesting the*  
2       *Commission to adopt two different ROEs.*     For regulated  
3       utilities, the return on book equity is set equal to the  
4       cost of capital by virtue of the regulatory ratemaking  
5       process itself.

6             I am extremely perplexed as to why Mr. Cicchetti  
7       assumes that natural gas utilities are expected to earn  
8       12.25% forever, yet he recommends only 10.1%.   The only  
9       way that the natural gas utilities can earn an ROE of  
10      12.25% each and every year forever is that rates be set  
11      so that they will in fact earn 12.25%.   So, how can the  
12      cost of equity be different from 12.25%?

13  
14   **Q.   PLEASE DISCUSS THE SECOND PROBLEM WITH MR. CICCHETTI'S**  
15   **RETENTION GROWTH ESTIMATES.**

16  
17   **A.**   The second problem is that the empirical finance  
18       literature demonstrates that the retention growth method  
19       is a poor explanatory variable of value, and is not  
20       significantly correlated to measures of value, such as  
21       stock price and price/earnings ratios.   I discuss this  
22       point more fully below.

23  
24   **Q.   PLEASE DISCUSS THE THIRD PROBLEM WITH MR. CICCHETTI'S**  
25   **RETENTION GROWTH ESTIMATES.**

1  
2 **A.** The third difficulty with Mr. Cicchetti's retention growth  
3 approach is that the forecasts of the expected return on  
4 equity published by Value Line are based on end-of-period  
5 book equity rather than on average book equity. The  
6 following formula, discussed and derived in Chapter 5 of  
7 my book, Regulatory Finance, adjusts the reported end-of-  
8 year values so that they are based on average common  
9 equity, which is the common regulatory practice:

$$r_a = r_t \frac{2B_t}{B_t + B_{t-1}}$$

14 Where:

15  $r_a$  = return on average equity

16  $r_t$  = return on year-end equity as reported

17  $B_t$  = reported year-end book equity of the current year

18  $B_{t-1}$  = reported year-end book equity of the previous year

19  
20 The result of this error is that Mr. Cicchetti's DCF  
21 estimates are understated by some 10-20 basis points,  
22 depending on the magnitude of the book value growth rate.

23  
24 **Q. PLEASE DISCUSS THE FOURTH PROBLEM WITH MR. CICHETTI'S**  
25 **RETENTION GROWTH ESTIMATES.**



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**A.** The last difficulty with Mr. Cicchetti's retention growth method is that he does not recognize any growth stemming from external financing through common stock issues, understating the growth rate further.

**Q. DID YOU NOTICE ANY OTHER ANOMALIES IN MR. CICHETTI'S GROWTH RATES?**

**A.** Yes, I did. Mr. Cicchetti never clarifies why a two-stage, two-growth rate DCF model was selected as opposed to the constant growth rate DCF model. It is not at all clear why Mr. Cicchetti assumes that the natural gas utilities in his sample will experience an anemic growth rate of only 1.5% over the next five years and a sudden quantum increase in growth profile to 5.6% thereafter<sup>1</sup>. Such a drastic shift in retention policy (dividend policy) is unrealistic and completely unjustified by the economics of the natural gas utility industry.

**4. DCF ANALYSTS' GROWTH FORECASTS**

**Q. DO YOU SEE ANY DANGERS IN RELYING ON VALUE LINE AS AN EXCLUSIVE SOURCE OF GROWTH FORECASTS IN APPLYING THE DCF MODEL?**

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<sup>1</sup> From Mr. Cicchetti's Exhibit MAC-7, natural gas utility dividends are assumed to grow from \$1.47 to \$1.56 from 2002 to 2006. The implied compound growth rate is 1.5%.

1  
2 **A.** I am perplexed as to why Mr. Cicchetti has relied  
3 exclusively on the Value Line growth forecasts. Mr.  
4 Cicchetti's sole reliance on Value Line growth forecasts  
5 runs the risk that such forecasts are not representative  
6 of investors' consensus forecast. One would expect that  
7 averages of analysts' growth forecasts such as those  
8 contained in Zacks, rather than one particular firm's  
9 forecast, are more reliable estimates of the investors'  
10 consensus expectations likely to be embedded in stock  
11 prices.  
12  
13 **Q. CAN YOU SUMMARIZE YOUR COMMENTS ON MR. CICHETTI'S DCF**  
14 **GROWTH RATES?**  
15  
16 **A.** In summary, Mr. Cicchetti's retention growth rate  
17 methodology, which assumes the ROE answer to begin with,  
18 contains serious conceptual, empirical, and  
19 methodological flaws, and should be disregarded. Given  
20 that his rate of return recommendation relies primarily  
21 on that one method, his recommendation must be viewed  
22 with extreme caution and skepticism.  
23  
24 **Q. DID YOU NOTICE ANY COMPUTATIONAL ERROR IN MR. CICHETTI'S**  
25 **DCF ANALYSIS?**

1  
2 **A.** Yes, I did. In his DCF analysis shown on Exhibit MAC-7,  
3 Mr. Cicchetti computes the average growth rate for his  
4 group of companies by multiplying the average ROE by the  
5 average retention ratio ( $g = br$ ). The practice of  
6 multiplying an average by another average is  
7 inappropriate. There is an old well-known theorem in  
8 basic statistics which says that the average of a product  
9 is not equal to the product of the averages, that is,  
10 using the letter E to denote the expected value operator,  
11  $E(br) \neq E(b) \times E(r)$ . The correct procedure is to  
12 calculate the growth rate for each individual utility ( $g$   
13  $= br$ ) and then average the results from each company to  
14 obtain the group average. Allowing for this minor  
15 blemish produces an average ROE for the natural gas  
16 companies that is 10 basis points higher.

17  
18 **5. RISK PREMIUM ANALYSIS**

19 **Q. PLEASE DISCUSS MR. CICHETTI'S RISK PREMIUM ANALYSIS.**

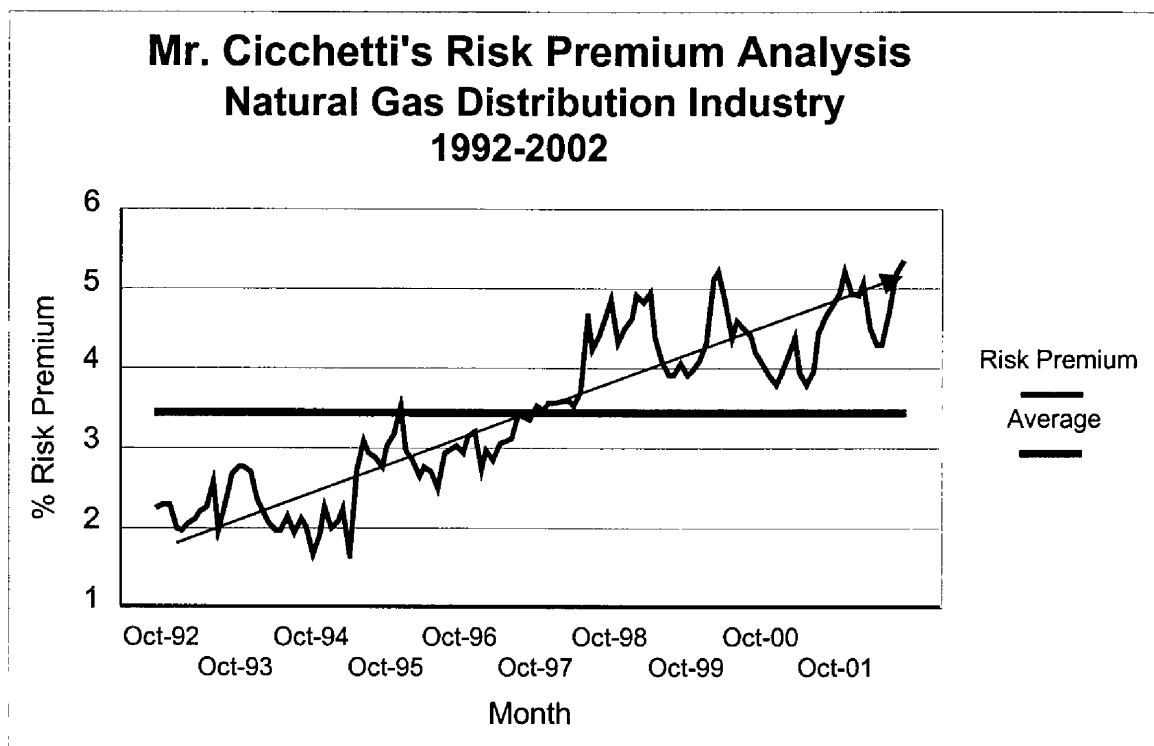
20  
21 **A.** I have two objections to Mr. Cicchetti's risk premium  
22 analysis. First, Mr. Cicchetti's risk premium analysis  
23 is merely a replication of his DCF analysis over several  
24 years, because the DCF estimates are computed in exactly  
25 the same manner as his DCF analysis, which I have shown

1 to be erroneous. His risk premium analysis consists of  
2 subtracting the yield on long-term Treasury bonds from  
3 his DCF estimate for each and every month over the period  
4 1992-2002 to obtain monthly risk premiums, which are then  
5 averaged. The current yield on long-term Treasury bonds  
6 is then added to the DCF-derived average risk premium to  
7 arrive at his risk premium estimate. Mr. Cicchetti's  
8 risk premium method is nothing more than his DCF estimate  
9 under a different disguise and is therefore subject to  
10 the same above criticisms as above, especially the  
11 inherent circularity of the technique.  
12

13 **Q. DO YOU AGREE WITH MR. CICHETTI'S RISK PREMIUM ESTIMATE**  
14 **OF 3.5% FOR NATURAL GAS DISTRIBUTION UTILITIES?**  
15

16 **A.** No, I do not. My second objection to Mr. Cicchetti's  
17 risk premium analysis is that his own data shows that the  
18 risk premium estimate is much higher. The graph below  
19 replicates his monthly risk premium estimates over the  
20 1992-2002 period. It is abundantly clear from this  
21 graph that the risk premium has steadily increased over  
22 that period and has reached the current level of 5.2%.  
23  
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3           The risks of the natural gas utility industry have  
4 gradually escalated because of increasing levels of  
5 competition and deregulation. Mr. Cicchetti's average  
6 risk premium of 3.5% measured over a 10-year estimation  
7 period lies midway between the beginning-of-period risk  
8 premium level of 2.0% and the current end-of-period risk  
9 premium of 5.2%, seriously underestimating the current  
10 risk premium.

11

12 **Q. IS MR. CICHETTI'S RISK PREMIUM ESTIMATE OF 3.5%**  
13 **CONSISTENT WITH HIS PUBLISHED WRITINGS ON THE SUBJECT?**

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**A.** No, it is not. In a recent article in Public Utilities Fortnightly dated 09/01/2002 and entitled "Gas Distribution: A Higher Risk Business," Mr. Cicchetti concludes:

*"Equity risk premiums for natural gas distributors have hit a ten-year high. Moody's Gas Distribution Index showed a jump to a 5.4 percent equity risk premium in December 2001..."*

It is not clear to me as to why Mr. Cicchetti did not heed his own advice when estimating a risk premium for Peoples Gas and use his published estimate of 5.4% rather than the 3.4% reported in his testimony.

**Q. WHAT DO YOU CONCLUDE FROM MR. CICCHETTI'S COST OF CAPITAL TESTIMONY?**

**A.** There are serious problems with Mr. Cicchetti's methods and concepts. My general conclusions are that his DCF analysis hinges solely on the "retention growth" method, only one of several methods traditionally used in regulatory proceedings, and certainly the most fragile method. His application of the method is questionable

1 and contains a serious logical trap because it requires  
2 that its user assume the answer to begin with. It is  
3 difficult to accept Mr. Cicchetti's claim that investors  
4 are expecting 10.1% when his own ROE data indicate that  
5 investors are expecting 12.25%.

6  
7 **6. CAPITAL STRUCTURE RECOMMENDATION**

8 **Q. DO YOU HAVE ANY COMMENTS ON MR. CICHETTI'S CAPITAL**  
9 **STRUCTURE RECOMMENDATION?**

10  
11 **A.** Yes, I do. Mr. Cicchetti recommends a hypothetical  
12 capital structure for Peoples Gas containing 50% common  
13 equity capital and 50% debt. Mr. Cicchetti's recommended  
14 capital structure is not supported by any rigorous  
15 analysis and is not consistent with an investment-grade  
16 bond rating.

17  
18 **Q. HOW DID MR. CICHETTI ARRIVE AT HIS RECOMMENDED CAPITAL**  
19 **STRUCTURE FOR PEOPLES GAS?**

20  
21 **A.** Mr. Cicchetti's justifies his 50% common equity ratio  
22 recommendation by referring to: 1) the average common  
23 equity ratio of his comparison companies and of the  
24 industry average, and 2) Standard and Poor's financial  
25 guidelines for utilities.

1  
2 **Q. CAN YOU COMMENT ON MR. CICHETTI'S REFERENCE TO THE**  
3 **CAPITAL STRUCTURES OF HIS COMPARISON COMPANIES?**

4  
5 **A.** Yes. Mr. Cicchetti's only justification for recommending  
6 a fictitious 50/50 capital structure is that his sample  
7 of natural gas distributors is, on average, actually  
8 financed with such a capitalization. This is a very  
9 misleading calculation in view of the wide variability in  
10 the common equity ratios of Mr. Cicchetti's comparison  
11 companies. Three of the six companies have common equity  
12 ratios in excess of 50% (Northwest Natural Gas 53%,  
13 Peoples Natural Gas 56%, and WGL 56%).

14 Moreover, his argument fails to consider the higher  
15 than average business risk of Peoples Gas documented in  
16 my direct testimony and the company's small size relative  
17 to the industry and relative to his sample of companies.  
18 Given the higher business risks and small size of the  
19 company, one expects a higher equity ratio from Peoples  
20 Gas relative to the average. The size effect is well  
21 documented in the finance literature to the effect that  
22 investment risk increases as company size diminishes, all  
23 else remaining constant. Peoples Gas' smaller size and  
24 higher relative business risk suggest a relatively



1 stronger balance sheet with more equity rather than less.  
2 These factors were largely ignored by Mr. Cicchetti.  
3

4 **Q. DID MR. CICHETTI DEMONSTRATE THAT HIS RECOMMENDED**  
5 **HYPOTHETICAL CAPITAL STRUCTURE IS COST EFFICIENT?**  
6

7 **A.** No, he did not. The imputation of a capital structure  
8 different from the actual necessarily presupposes the  
9 existence of an optimal (cost efficient) capital  
10 structure. Mr. Cicchetti has not demonstrated that his  
11 recommended capital structure for Peoples Gas is optimal.  
12 There is no mention or reference in his testimony, direct  
13 or indirect, to any of the elements or conceptual  
14 frameworks that determine a company's optimal capital  
15 structure. Mr. Cicchetti ignores the costs of imputing  
16 more debt to Peoples Gas and the various elements which  
17 determine a company's optimal capital structure, for  
18 example, the impact of 1) personal and corporate taxes,  
19 2) signaling effects, 3) "pecking-order" effects, 4)  
20 intangibles, including impact on bond rating, terms of  
21 issuance, cost of equity, and 5) information effects.  
22 None of the fundamental determinants of capital structure  
23 were considered by Mr. Cicchetti.  
24

1 Q. DID YOU DETECT ANY OTHER SHORTCOMING IN MR. CICHETTI'S  
2 CAPITAL STRUCTURE RECOMMENDATION?  
3

4 A. Yes. Assuming for a moment that it would be proper to  
5 impute a capital structure consisting of substantially  
6 more debt as Mr. Cicchetti has done, his recommended  
7 capital structure does not recognize the ongoing  
8 fundamental changes occurring in the gas distribution  
9 industry which have increased business risk. His  
10 testimony makes no mention at all of the effects of the  
11 ongoing restructuring taking place in the gas  
12 distribution industry, increased competition level,  
13 deregulation, and the fundamental changes in regulatory  
14 environment. Recall my earlier reference to the natural  
15 gas industry's escalating risk premium documented in Mr.  
16 Cicchetti's own published article on the subject. Nor  
17 does Mr. Cicchetti recognize Peoples Gas' relative small  
18 size. He does, however, recognize Peoples Gas's higher  
19 than average business risk and even quantifies such a  
20 risk increment. But, strangely enough, Mr. Cicchetti's  
21 recommendation of imputing more debt (more financial  
22 risk) to Peoples Gas is not consistent with Peoples Gas'  
23 higher than average business risk circumstances that he  
24 himself recognizes and quantifies.  
25

1 Q. DR. MORIN, WHAT IS AN APPROPRIATE BOND RATING FOR A  
2 NATURAL GAS DISTRIBUTION UTILITY?

3  
4 A. Long-term achievement and maintenance of a strong A  
5 rating is in investors' and ratepayers' best interests.  
6 Capital structure targets should be therefore set so as  
7 to achieve such ratings. Moreover, the average bond  
8 rating for the energy distribution industry is also A.  
9 In addition, although the legal definition of investment  
10 grade is BBB, the actual practical definition of  
11 investment grade is A. This is because a large majority  
12 of institutional investors is precluded from investing in  
13 bonds rated below A. For all these reasons, sound public  
14 policy requires that the Commission create financial  
15 conditions conducive to an optimal bond rating of at  
16 least single A.

17  
18 Q. IS THE 50/50 CAPITAL STRUCTURE RECOMMENDED BY MR.  
19 CICCHETTI CONSISTENT WITH THE BOND RATING AGENCY  
20 BENCHMARKS FOR AN EFFECTIVE INVESTMENT GRADE STATUS?

21  
22 A. No, it is not. A capital structure consisting of 50%  
23 common equity places Peoples Gas outside the guidelines  
24 stipulated by bond rating agencies for an A rating  
25 status, which I consider optimal for both the company's

1 investors and its ratepayers. Standard and Poor's  
2 published benchmarks for utilities with a business  
3 position rating of 5, as I believe Peoples Gas would  
4 rate, include a debt ratio in the range of 41.5% - 47.0%,  
5 that is, an equity ratio in the range of 53.0% - 57.5%  
6 for an A rating. The higher end of the equity ratio  
7 range is required by investors for smaller utilities in  
8 order to offset the lack of liquidity of their  
9 securities. Peoples Gas' common equity ratio of 57.4%  
10 places the company within those guidelines while Mr.  
11 Cicchetti's recommended 50% does not. Because of Peoples  
12 relatively small size, it is appropriate that they be at  
13 the top of the range.

14  
15 **Q. DID YOU DETECT ANY OTHER FLAWS IN MR. CICHETTI'S CAPITAL**  
16 **STRUCTURE ANALYSIS?**

17  
18 **A.** Yes, I did. Assuming for a moment that it would be  
19 proper to impute a capital structure consisting of  
20 substantially more debt as Mr. Cicchetti has done, the  
21 higher common equity cost rate related to a changed  
22 common equity ratio should be reflected in the approach.  
23 In ascribing a capital structure different from the  
24 company's capital structure, which imputes a higher debt  
25 amount, Mr. Cicchetti has not recognized the

1        repercussions on equity costs. It is a rudimentary tenet  
2        of basic finance that the greater the amount of financial  
3        risk borne by common shareholders, the greater the return  
4        required by shareholders in order to be compensated for  
5        the added financial risk imparted by the greater use of  
6        senior debt financing. In other words, the greater the  
7        debt ratio, the greater is the return required by equity  
8        investors. Both the cost of incremental debt and the  
9        cost of equity must be adjusted to reflect the additional  
10       risk associated with the more debt-heavy capital  
11       structure. Mr. Cicchetti does not formally incorporate  
12       in his analysis the fact that lower common equity ratios  
13       imply greater risk and higher capital cost.

14  
15    **Q.    WHAT DO YOU CONCLUDE FROM MR. CICHETTI'S CAPITAL**  
16    **STRUCTURE ANALYSIS?**

17  
18    **A.**   I strongly disagree with his recommendation of imputing  
19       more debt and less equity for ratemaking purposes. Mr.  
20       Cicchetti has not demonstrated that his recommended  
21       capital structure is optimal. I endorse the Commission's  
22       past practice of using actual rather than fictitious  
23       capital structures, as it did in Peoples Gas' last rate  
24       case. I urge the Commission to reject the use of a  
25       hypothetical, or fictitious, capital structure. There is

1 little, if anything, to be gained, and much to be lost,  
2 from arbitrarily imputing more debt to the company. I  
3 consider Peoples Gas' actual capital structure to be  
4 beneficial to its ratepayers.

5  
6 **Q. IF AN ADJUSTMENT IS MADE TO REDUCE THE COMPANY'S EQUITY**  
7 **PERCENTAGE, WOULD ANY OTHER ADJUSTMENT NEED TO BE MADE?**

8  
9 **A.** Yes. The parent debt adjustment as filed contemplates  
10 the capital structure contained in the MFRs. Any  
11 reduction to the equity percentage would require a  
12 recalculation of the parent debt adjustment.

13  
14 **Q. DOES THIS COMPLETE YOUR REBUTTAL TESTIMONY?**

15 **A.** Yes, it does.  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25