

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Application for a rate increase by)
Tampa Electric Company d/b/a)
Peoples Gas System)
_____)

Docket No. 020384-GU
Filed: October 21, 2002

DIRECT TESTIMONY

OF

MARK A. CICHETTI

On Behalf of the Citizens of the State of Florida

Jack Shreve
Public Counsel

Office of Public Counsel
c/o The Florida Legislature
111 West Madison Street
Room 812
Tallahassee, FL 32399-1400

(850) 488-9330

Attorney for the Citizens
of the State of Florida

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FPSC-COMMISSION CLERK

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QUALIFICATIONS AND EXPERIENCE

1
2 Q. Please state your name and address and on whose behalf you are testifying in this
3 proceeding.

4 A. My name is Mark Anthony Cicchetti and my business address is 2931 Kerry Forest
5 Parkway, Suite 202, Tallahassee, Florida 32309. I am testifying on behalf of the Office
6 of Public Counsel.

7
8 Q. By whom are you employed and in what capacity?

9 A. I am a Project Manager and Manager of the Tallahassee Office for C.H. Guernsey & Co.
10 Guernsey is an engineering, architectural and consulting firm that has been in business
11 for over 70 years. The services Guernsey provides include: cost of service and rate
12 studies; regulatory and litigation support; economic and financial studies; valuation
13 studies; power supply planning, solicitation, and procurement; fuel purchasing;
14 transmission and distribution planning and facilities design; strategic planning;
15 telecommunications and e-business applications; architectural design for headquarters
16 and warehouse facilities; environmental assessments; security systems; and web site
17 development and internet applications.

18
19 For ten years prior to joining Guernsey, I was President of Cicchetti & Co., a financial
20 research and consulting firm specializing in public utility finance, economics, and
21 regulation. I also have been employed by the Florida State Board of Administration as
22 Manager of Arbitrage Compliance and the Florida Public Service Commission as Chief
23 of Finance. A detailed narrative description of my experience and qualifications is
24 contained in Exhibit__(MAC-1).

1 Q. Have you previously testified before this Commission?

2 A. Yes, I have testified before this Commission numerous times.

3
4 **PURPOSE OF TESTIMONY**

5 Q. What is the purpose of your testimony?

6 A. The purpose of my testimony is to address the cost of common equity capital and an
7 appropriate equity ratio for Peoples Gas System (“Peoples”).

8
9 Q. Please summarize your conclusions.

10 A. With respect to an appropriate allowed return on equity, I conclude the cost of common
11 equity capital for Peoples is within the range of 9.30% to 10.90% and I recommend the
12 Commission allow the midpoint of this range, 10.10%. With respect to an appropriate
13 equity ratio, I conclude Peoples’ equity ratio should be set at 50.00% of investor capital.

14
15 **CAPITAL ATTRACTION AND FINANCIAL INTEGRITY STANDARDS**

16 Q. What guiding principles did you consider in determining a fair rate of return for
17 Peoples?

18 A. I relied on the principles established by the Supreme Court of the United States in
19 Bluefield Waterworks and Improvement Company v. Public Service Commission of
20 West Virginia, 262 U.S. 679 (1923) and Federal Power Commission v. Hope Natural
21 Gas Company, 320 U.S. 591 (1944). Briefly stated, the Hope and Bluefield decisions
22 provide that the return to the equity owner should be commensurate with returns on
23 investments having corresponding risks and should be sufficient to assure confidence
24 in the financial integrity of the enterprise, so as to maintain its credit and attract capital.

1 Q. Please define the cost of common equity capital.

2 A. The cost of common equity capital is the minimum rate of return necessary to attract
3 capital to a common equity investment. The cost of common equity is a function of risk.
4 The greater the risk the greater the return investors require.

5
6 **PORTFOLIO THEORY AND RELEVANT RISK**

7 Q. What risks do common equity investors face?

8 A. A stock's risk consists of company specific risk known as diversifiable risk and market
9 risk known as non-diversifiable risk. Company specific risk is caused by events that are
10 unique to a particular firm such as the loss of a major customer, strikes, lawsuits, and
11 so on. Since these things occur randomly, their effects can be eliminated through
12 diversification - negative events at one firm will be offset by positive events at another.
13 Market risk, on the other hand, is associated with events that affect all firms
14 simultaneously such as inflation, war, and recession. Since all firms are affected
15 simultaneously, the effect of these events cannot be eliminated through diversification.
16 Therefore, since we assume investors are risk averse (that is, accept the highest return
17 for a given level of risk or accept the lowest level of risk for a given return), the relevant
18 risk of a stock is the risk that cannot be diversified away. Rational investors do not
19 accept risks that can be easily eliminated. Numerous empirical studies have shown the
20 capital markets are efficient and investors are compensated only for risks that cannot be
21 diversified away. Therefore, the relevant risk of a stock is the risk it contributes to a
22 well-diversified portfolio and is measured by beta. Beta is a measure of a stock's
23 volatility relative to an average stock. A beta of 1.0 indicates that the individual stock's
24 return moves up or down in the same proportion as the market return. A beta above or

1 below 1.0 indicates higher or lower return volatility, and therefore greater or lesser risk,
2 relative to the market as a whole.

3
4 Q. What determines the relevant risk of a stock?

5 A. The relevant risk of a stock is determined by the degree to which the stock tends to
6 move up and down with the market. The relevant risk facing a common equity investor
7 can be disaggregated into business risk and financial risk. Business risk relates to the
8 uncertainty surrounding the level of operating income expected to be earned, while
9 financial risk relates to the types of securities used to finance the firm, that is, financial
10 leverage. It is generally accepted that companies with high business risk should
11 capitalize their operations with a relatively lower amount of debt and fixed obligations.

12
13 Q. What general economic factors influence investment decisions?

14 A. The interrelated factors of inflation and interest rates are major factors that influence the
15 investment decision-making process.

16
17 Q. Of what significance are inflation and interest rates to an investor?

18 A. Interest rates are important to investors because the required return on an investment
19 is affected by the returns available on alternative investments. Additionally, rising
20 inflation and rising interest rates erode earnings. Public utilities in general are
21 particularly sensitive to the effects of high inflation and high interest rates. As with
22 other industries, rising labor and other operating expenses directly impact public utility
23 companies' earnings. Also, due to the capital intensive nature of the public utility
24 industries, plant costs and related financing costs have a particularly strong impact on
25 the earnings of these companies.

1 However, the impacts associated with inflation and interest rates currently are less for
2 utilities than they have been in the past because inflation and interest rates are at or near
3 the lowest levels they have been in the last thirty years.

4
5 **THE CREDIT AND CAPITAL MARKETS**

6 Q. Have you examined changes in inflation rates?

7 A. Yes. As shown on Exhibit__(MAC-2), inflation as measured by the consumer price
8 index has subsided considerably since the highs experienced in the 1970's and 1980's
9 and is expected to be approximately 2.1% in the long-term as indicated by the spread
10 between 30-year treasury securities and treasury inflation protection securities (“TIPS”).
11 Furthermore, the GDP price index is estimated to increase by 1.7% in 2002 and is
12 expected to continue around that low rate. Global competition and slow economic
13 growth are factors contributing to the expectations of low inflation. Exhibit__(MAC-2)
14 shows inflation as measured by the GDP Index, the current 30-year treasury and TIPS
15 rates, and *Value Line's* forecast for the GDP Index. Q Have you examined changes in
16 interest rates?

17 A. Yes. Interest rates are at historically low levels. Exhibit__(MAC-2) shows the 10-year
18 treasury note rate over the last ten years.

19
20 It should be noted that recent and current economic statistics do not provide a complete
21 basis for determining the value of long-term investments. Rather, they only provide
22 insight into the current environment within which long-term assets are being valued and
23 function as a reference point for past and present forecasts.

1 Q. Please discuss the current economic environment and current expectations regarding
2 inflation and interest rates.

3 A. As the U.S. economy enters the fourth quarter, economic activity is characterized as
4 slow and uneven. Retail sales are mixed with sales of home furnishings and appliances
5 running strong while apparel sales are slow due to unseasonably warm weather in parts
6 of the U.S. Auto sales are above 2001 levels due mostly to aggressive financing and
7 rebate incentives.

8
9 Manufacturing activity is sluggish and business travel and air travel have remained at
10 depressed levels. There has been little gain in employment activity with corresponding
11 little pressure on wages -- although there is widespread concern about the effects of
12 rising health care costs.

13
14 Oil prices have risen from the beginning of the year, incorporating a war premium
15 estimated at \$5 to \$6 per barrel. Natural gas prices have remained steady through most
16 of 2002 but have recently increased due to, at least in part, disruption in the Gulf of
17 Mexico from Hurricanes Isadore and Lila. However, natural gas inventories are
18 expected to be at a record high level by the beginning of the heating season.

19
20 Commercial real estate markets have remained weak in most parts of the country while
21 residential sales and construction have been strong due to the favorable interest rate
22 environment. In Florida, strong residential sales have created a shortage of homes in
23 some areas.

24

1 Across the country, bank loan demand is generally mixed although demand for
2 mortgages and refinancing remains high. Business lending remains weak while
3 consumer loan demand is strong. Credit standards have been tightened for commercial
4 and industrial loans although delinquency rates have been stable or declining.

5
6 In conclusion, the U.S. economy is sputtering. The economy is characterized by low
7 inflation, low interest rates, and slow and uneven growth. The stock market remains
8 significantly below its' highs of recent years and return expectations are relatively low.
9 For utilities, increases in plant and operating costs associated with inflation, and the
10 related financing costs, are expected to remain muted into the foreseeable future.

11
12 The future course of the economy and of inflation is difficult to predict. However, a
13 component of required returns is compensation for expected inflation, the level of which
14 directly impacts the cost of both debt and equity. As shown on Exhibit __ (MAC-2) the
15 current *Blue Chip* consensus forecast for the bellwether long-term treasury bond for the
16 coming year is 5.50% and the current long-term forecast for inflation is 2.1%.

17
18 **DESCRIPTION OF INDUSTRY AND COMPANY**

19 Q. Have you examined the current state of the natural gas industry?

20 A. Yes. Natural gas provides twenty-five percent of the United States' energy needs and
21 is the fastest growing major energy source. The industry is characterized by sound
22 fundamentals such as steady long-term growth, stable cash-flows, strong balance sheets,
23 reliable earnings, solid assets, and low business risk. Generally, the industry has
24 successfully navigated the regulatory restructuring initiated at both the federal and state
25 levels and natural gas utilities are considered attractive investments.

1 Q. Please describe Peoples.

2 A. Peoples engages in the purchase, sale, and distribution of natural gas for residential,
3 commercial, industrial, and electric power generation customers in Florida. In June
4 1997, TECO Energy acquired Lykes Energy, Inc. and merged Lykes' regulated gas
5 distribution business into Tampa Electric Company. Lykes' former regulated gas
6 distribution business is now the Peoples Gas System Division of Tampa Electric
7 Company. West Florida Natural Gas was also acquired in June 1997 and integrated into
8 Peoples adding 30,000 customers in parts of the panhandle and central Florida. Peoples
9 is the largest natural gas distribution business in Florida. Peoples serves approximately
10 273,000 customers, is conservatively financed, and is expected to grow at a rate of 4%
11 to 6% annually. Peoples' above average growth prospects are expected to be driven by
12 increased industrial usage and strong residential growth. The Company operates in one
13 of the fastest growing service territories in the country in a highly regarded regulatory
14 environment.

15
16 **EQUITY RATIO ANALYSIS**

17 Q. Have you examined Peoples' equity ratio?

18 A. Yes, I have.

19
20 Q. In your opinion, should Peoples' equity ratio be reduced for ratemaking purposes?

21 A. Yes.

22
23 Q. Why do you believe Peoples' equity ratio should be reduced for ratemaking purposes?

24 A. It is important to ensure that ratepayers do not subsidize, through a utility's cost of
25 capital, the costs associated with non-utility investments made by the utility, its parent,

1 or affiliates. This can be accomplished by ensuring that only the reasonable and prudent
2 costs associated with the provision of utility service are charged to ratepayers.
3 Generally, when attempting to prevent cross-subsidization between utility and non-
4 utility affiliates, regulators tend to concentrate on costs such as the allocation of
5 common plant or other shared assets and expenses. However, significant cross-
6 subsidization between utility and non-utility affiliates can occur if regulated rates
7 incorporate a rate of return above the required return or if regulated rates reflect an
8 equity ratio above the level required to allow the utility to maintain financial flexibility
9 and financial integrity. Additionally, utilities can manipulate their revenue requirement
10 and their earnings level through changes to their equity ratio.

11
12 In a purely competitive environment it would not be possible for a firm to increase its
13 price above the market rate in one market to subsidize a price in another market.
14 However, in a regulated environment, regulation is a proxy for competition. Therefore,
15 as regulated utilities or their affiliates enter more non-regulated lines of business it
16 becomes even more important to ensure ratepayers only bear the reasonable and prudent
17 costs associated with the provision of utility service.

18
19 Q. Is there any reason for concern regarding Peoples' equity ratio and Peoples' affiliate
20 relationships?

21 A. Yes. As has been widely reported in the press, Teco Energy's stock price has plunged
22 to an eleven year low and the debt securities of Teco Energy and its subsidiaries
23 including Tampa Electric Company have been downgraded by Standard & Poor's,
24 Moody's, and Fitch. The downgrade in Tampa Electric Company's debt will increase
25 the cost to the company to issue debt--and ultimately to ratepayers if allowed in rates.

1 Teco Energy’s financial troubles stem from the company’s large and highly concentrated
2 exposure to merchant power markets. As stated by Fitch in its September 23, 2002 press
3 release, “The downgrade of Tampa Electric’s ratings reflects the increase in leverage
4 and business risk at the parent, and Fitch’s rating policy that links parent and subsidiary
5 ratings.”

6
7 The downgrade in Tampa Electric’s debt rating associated with non-regulated
8 investments by its affiliates emphasizes the need to ensure the financing costs allowed
9 in regulated utility rates are only those associated with the provision of regulated utility
10 service.

11
12 As shown on Exhibit__(MAC-3), Peoples proposed equity ratio as a percentage of
13 investor capital is significantly above the industry average and significantly above the
14 average of the comparison companies in Moody’s natural gas distribution index.
15 Additionally, as shown on Exhibit__(Mac-3), page 2, both Peoples (53.68%) and Tampa
16 Electric (55.56%) currently have equity ratios substantially above that of Teco Energy,
17 Inc. (41.36%), the parent company of both Peoples and Tampa Electric. This indicates
18 Teco Energy, Inc.’s risky, non-regulated ventures, in total, are financed with less equity
19 than the less risky regulated operations. This signifies reliance on the regulated
20 companies for credit support by the parent corporation. Financing the riskier assets with
21 less equity is contrary to generally accepted financial theory and Peoples’ excessive
22 proposed equity ratio is significantly above the industry norm. As stated by Moody’s in
23 *Moody’s Approach to Rating Gas Transmission and distribution Companies - An*
24 *Update*, June 2000, “Gas companies also manage their capital structures with their
25 regulators in mind. Regulators often indicate an allowed equity-to-capital ratio, which

1 usually approaches 50%. This level of equity gives a company a solid layer of
2 permanent capital on which it can earn reasonable returns with little financial risk.
3 Thus, LDC's maintain a capitalization at a 50%/50% debt/equity mix, with occasionally
4 a thin layer of preferred stock.”

5
6 Q. What is an appropriate equity ratio for ratemaking purposes for Peoples?

7 A. Exhibit __ (MAC-4) shows Standard and Poor's financial guidelines for utilities. As
8 shown on Exhibit __ (MAC-4), the total debt to total capital benchmark for a BBB utility
9 of average business risk is 50% - 51%. This corresponds to an equity ratio of 49% to
10 50%. As shown on Exhibit __ (MAC-4), Peoples' proposed total debt to total capital is
11 under 42.55%, significantly below the guideline for a BBB rated utility. Peoples'
12 proposed equity ratio is 57.45%. In my opinion, Peoples has not justified its need for
13 such a costly capital structure, i.e. low debt ratio and high equity ratio. In addition to
14 being the most costly capital structure component, the tax impacts associated with
15 common equity magnify the costs of equity in the capital structure. Ratepayers should
16 not have to bear the added costs of unnecessarily high equity ratios that are needed by
17 the local distribution company's parent or affiliates to provide credit support for
18 leveraged investments in risky operations.

19
20 Based on the reasons stated above: 1.) ratepayers should pay only the reasonable and
21 prudent costs associated with the provision of utility service; 2.) The tax impacts
22 associated with equity magnify the costs associated with a high equity ratio; 3.) a utility's
23 equity ratio should be reasonable and allow the Company to attract capital at a
24 reasonable cost; 4.) increased investment by Peoples' affiliates into riskier non-regulated
25 lines of business; 5.) the ability of the Company to manipulate its equity ratio to the

1 detriment of its ratepayers and competitors and to the benefit of itself and its affiliates;
2 6.) the fact that Peoples' total debt to total capital ratio is significantly below the
3 industry average and significantly below the Standard and Poor's total debt to total
4 capital guidelines for a BBB rated utility company of average risk; 7.) Peoples' riskier
5 affiliates have not been financed with more equity indicating reliance on the regulated
6 utility for credit support and; 8.) the company has not justified the need for such a costly
7 capital structure: I recommend Peoples' equity ratio be set at 50% of investor capital for
8 ratemaking purposes. An equity ratio of 50% is Standard and Poor's total debt to total
9 capital financial guideline for a BBB rated utility of average risk and the level indicated
10 by Moody's to be the industry norm.

11 12 RATE OF RETURN ANALYSIS

13 Q. What methods did you use to determine the required return on common equity for
14 Peoples?

15 A. To determine the required return on common equity, I used a two-stage, annually
16 compounded discounted cash flow (DCF) model and a risk-premium analysis.

17
18 It is important to note that estimating the cost of common equity is a subjective
19 procedure. It is impossible to measure it precisely and it is generally estimated within
20 a range. The cost of common equity is a function of investor expectations and it is
21 impossible to know all investors' expectations at any point in time. Consequently,
22 professional judgment must be exercised when determining proxies for investor
23 expectations. When analyzing cost of equity estimates, it is important to understand the
24 rationale underlying the subjective inputs and how well the models relied upon reflect
25 reality.

- 1 Q. How did you apply the DCF and risk premium models to obtain Peoples' cost of
2 common equity?
- 3 A. I conducted a DCF analysis and a Risk Premium analysis on Moody's Natural Gas
4 Distribution Index. Relying on an index of companies, rather than a single company,
5 helps minimize forecasting errors and should provide more reliable information for use
6 in measuring the cost of common equity.
- 7
- 8 Q. Please describe the investment risk characteristics that comprise Moody's Natural Gas
9 Distribution Index.
- 10 A. The investment risk parameters for Moody's Natural Gas Distribution Index companies
11 are: a *Value Line* Safety Rank of 2, a *Value Line* beta of .65, an S&P bond rating of A,
12 and an average equity ratio of 43.17% of investor capital. Exhibit __ (MAC-5) shows
13 the investment characteristics for Moody's Natural Gas Distribution index.
- 14
- 15 Q. Please briefly describe the models you used.
- 16 A. The discounted cash flow model is the most commonly used market based approach for
17 estimating a utility investor's required return on common equity capital. In a DCF
18 analysis, the cost of equity is the discount rate which equates the present value of
19 expected cash flows associated with a share of stock to the present price of the stock.
- 20
- 21 A risk premium analysis recognizes that equity is riskier than debt. Equity investors
22 thus require a "risk premium" over the cost of debt as compensation for assuming
23 additional risk.
- 24
- 25 Q. Please describe the discounted cash flow model used in your analysis.

1 A. I used a two-stage variable growth rate DCF model in order to use the specific dividend
2 forecasts for the next five years provided by *Value Line*. *Value Line* is an independent,
3 respected, widely circulated source of investment information. Exhibit__(MAC-6)
4 shows a two-stage DCF model. In the two-stage model, dividend growth is estimated
5 on an individual basis for an initial growth period. After the initial period, dividends are
6 assumed to grow into perpetuity at the expected long-term growth rate.

7
8 Q. How did you use this model to determine the cost of common equity capital for the
9 index?

10 A. The current stock price (P_0) was determined by averaging the high and the low stock
11 price for each company. I assumed an initial growth period based upon *Value Line's*
12 explicit dividend forecasts (n). I used *Value Line's* forecast of dividends, and assumed
13 a constant rate of growth in between to estimate the expected dividends (D_t) during the
14 initial growth period. The long-term constant rate of growth expected (g_n) was
15 calculated using the earnings retention method ($b \times r$ approach) and *Value Line's*
16 expected return on equity (r) and expected retention rate (b).

17
18 Q. Did you incorporate an allowance for flotation costs in applying your DCF model?

19 A. Yes. The DCF calculations I performed include an adjustment of 3% to recognize the
20 expenses associated with issuing stock. An allowance for issuance costs enables the
21 utility to recover the costs incurred when issuing common stock. Issuance expenses
22 include registration, legal, and underwriter fees, and printing and mailing expenses.
23 Investors would never be able to earn the required return on their investment without an
24 issuance cost adjustment because the sales price will always exceed the net proceeds to

1 the company as a result of incurring issuance costs. These costs will be incurred
2 whether the stock is publicly traded or privately held.

3
4 Conceptually, the situation with common stock is similar to that of bonds and preferred
5 stock. With bonds for example, the issuance expenses are reflected in the cost charged
6 to ratepayers and are recovered over the life of the bond. The cost to the company for
7 a specific bond issue is the interest expense plus the amortization of issuance costs
8 divided by the principal value less the unamortized issuance costs. The result is that the
9 cost to the utility is greater than the return to the creditor.

10
11 Unlike the case of bonds, however, common stock does not have a finite life. Therefore,
12 issuance costs cannot be amortized and must be recovered by an upward adjustment to
13 the allowed return on equity. This adjustment reflects the fact that, due to the issuance
14 costs, the utility earns a return on an equity balance that is less than the actual amount
15 paid by investors. (See Brigham, E.F., Aberwald, D., and Gapenski, L.D., "Common
16 Equity Flotation Costs and Rate Making," Public Utilities Fortnightly, May 2, 1985, pp.
17 28-36). Historically, utility underwriting expenses associated with issuing common
18 stock have averaged 3 to 4 percent of gross proceeds. (See Petteway, R.H., "A Note on
19 the Flotation Costs of New Equity Capital Issues of Electric Companies," Public
20 Utilities Fortnightly, March 18, 1982, pp. 68-69. When the adjustment for flotation
21 costs (FC) is recognized, the cost of equity is given on Exhibit __ (MAC-6).

22
23 Q. What is the required return on common equity for the index based upon your two-stage
24 annually-compounded DCF model?

1 A. Solving the equation on Exhibit__(MAC-6) for the cost of equity (K) produces a
2 required return on common equity for the index of 10.60% (rounded). Exhibit__(MAC-
3 6) shows the inputs and results of my analysis.

4
5 Q. Please describe the risk premium approach of determining the cost of common equity.

6 A. The return to equity owners is a residual return and is less certain than the yield on
7 bonds. Therefore, equity owners must be compensated for this additional risk. The risk
8 premium approach estimates the cost of common equity by adding a premium to the cost
9 rate of debt to compensate the investor for the greater risk inherent in an equity
10 investment. The basic risk premium model takes the form: $K_e = B_y + R_p$ where: K_e =
11 the cost of common equity; B_y = the yield on debt; R_p = the risk premium on common
12 stock.

13
14 In order to apply the methodology, a risk premium for common stock over some
15 measure of debt cost must be estimated. The debt security used in a risk premium
16 analysis should be risk free to isolate the spread component of the return and avoid
17 default risk and circularity concerns that are associated with debt securities issued by
18 companies.

19
20 Q. How did you estimate the equity-debt risk premium?

21 A. I began my analysis by estimating the required market returns for Moody's Natural Gas
22 Distribution Index for each month of the 1992 to 2002 ten-year period (120 data points)
23 using the same DCF methodology described previously. This was accomplished by
24 using the *Value Line* data that was available to investors each month of the 1992 to 2002
25 period, and the then current stock prices.

- 1 Q. How was the equity-debt risk premium determined?
- 2 A. For each month, the required returns on common equity derived from my DCF analyses
3 were compared to the then current yield on long-term government bonds, as reported by
4 Federal Reserve Board, to determine the risk premium for common equity over the yield
5 on long-term government bonds.
6
- 7 Q. What is your estimate of the equity-debt risk premium for the index?
- 8 A. As shown on Exhibit__(Mac-8) the equity-debt risk premium for the index averaged
9 3.50% (rounded) over the period 1992 to 2002.
10
- 11 Q. What measure of debt cost did you add to the risk premium to determine the cost of
12 equity?
- 13 A. I used the September 1, 2002 *Blue Chip Financial Forecasts'* (Blue Chip) consensus
14 forecast for long-term government bond yields for the coming year of 5.5%. *Blue Chip*
15 *Financial Forecasts* is a publication that provides interest rate forecasts from leading
16 economists and financial analysts.
17
- 18 Q. What is the risk premium cost of common equity for the index?
- 19 A. Combining the next four quarters expected yield on long-term government bonds of
20 5.5% with the equity-debt risk premium of 3.5% results in a risk premium cost of equity
21 of 9.00% for the index. Exhibit__(MAC-8) shows the results of the Risk Premium
22 analysis.
23
- 24 Q. How does the investment risk of Peoples compare to that of Moody's Gas Distribution
25 Index?

1 A. As shown on Exhibit __ (MAC-5), the companies comprising Moody's Natural Gas
2 Distribution Index have a bond rating of A. Peoples' 2001 revenues were \$353 million.
3 As shown on Exhibit __ (MAC-5), Peoples is much smaller, based on revenues, than the
4 companies in Moody's Natural Gas Distribution Index. Peoples has no formal bond
5 rating, lacks stand-alone capital market participation, and its securities lack liquidity and
6 trading volume. Peoples has a significantly lower percentage of residential customers
7 and has significantly more exposure to the industrial market than the index companies
8 on average. On the positive side, Peoples receives outstanding regulation and is
9 conservatively financed, even at an equity ratio of 50%. Overall, I believe Peoples is
10 somewhat more risky than the comparison companies comprising Moody's Natural Gas
11 Distribution Index.

12
13 Q. Did you make an adjustment to the required return on equity to recognize the difference
14 in risk between the index and Peoples?

15 A. Yes. I used a bond yield differential to estimate the additional return required by
16 Peoples over the index. I believe the differential between the yields of A and Baa public
17 utility long-term bonds over the last ten years of 30 basis points, as reported by
18 Moody's, is a reasonable estimate of the additional return required. I believe it is
19 reasonable to assume the average marginal cost of debt to Peoples to be equal to a
20 Moody's bond rating of Baa. A bond rating below Baa is not investment grade. Certain
21 financial institutions, pension funds, and others with fiduciary responsibility only can
22 invest in investment grade securities. Bonds below investment grade are characterized,
23 at best, as "uncertain as to position" by Moody's. It would be unreasonable to assume
24 that the debt of Florida-regulated utility is below that described by Moody's Baa rating

1 and therefore below investment grade. Exhibit __ (MAC-9) shows the results of my DCF
2 and Risk Premium Analyses.

3
4 **FAIR RATE OF RETURN FOR PEOPLES GAS SYSTEM**

5 Q. Based on your DCF and risk premium analyses, what is your conclusion as to the
6 investor required rate of return on common equity for Peoples?

7 A. Based on my DCF and Risk Premium analyses, I conclude the investor required rate of
8 return on common equity for Peoples is within the range of 9.30% to 10.90% with a
9 midpoint of 10.10%. As shown on Exhibit __ (MAC-10), a return on common equity of
10 10.10% will allow Peoples a coverage ratio of 3.05X. In my opinion, such a coverage
11 ratio, given Peoples financial profile, business risk, and regulatory climate will allow
12 Peoples to maintain its, financial integrity and attract capital at a reasonable cost.

13
14 Q. Please summarize your testimony.

15 A. My testimony addressed two subject areas. The first area was the determination of an
16 appropriate equity ratio for Peoples. With respect to an appropriate equity ratio I
17 conclude Peoples' equity ratio should be set at 50.00% of investor capital for ratemaking
18 purposes.

19
20 The second area I addressed was the appropriate return Peoples should be allowed for
21 ratemaking purposes. With respect to an appropriate allowed return, I conclude the cost
22 of common equity capital for Peoples is within the range of 9.30% to 10.90% and I
23 recommend the Commission allow the midpoint of this range, 10.10%.

24 Q. Does this conclude your testimony?

25 A. Yes, it does.

EXHIBITS

Experience and Qualifications

I received a Bachelor of Science degree in Business Administration in 1980 and a Master of Business Administration degree in Finance in 1981, both from Florida State University. Upon graduation I accepted a planning analyst position with Flagship Banks, Inc., a bank holding company. As a planning analyst, my duties included merger and acquisition analysis, lease-buy analysis, branch feasibility analysis, and special projects.

In 1983, I accepted a regulatory analyst position with the Florida Public Service Commission. As a regulatory analyst, I provided in-depth analysis of the cost of equity and required overall rate of return in numerous major and minor rate cases. I reviewed and analyzed the current and forecasted economic conditions surrounding those rate cases and applied financial integrity tests to determine the impacts of various regulatory treatments. I also co-developed an integrated spreadsheet model which links all elements of a rate case and calculates revenue requirements. I received a meritorious service award from the Florida Public Service Commission for my contributions to the development of that model.

In February 1987, I was promoted to Chief of the Bureau of Finance. In that capacity I provided expert testimony on the cost of common equity, risk and return,

corporate structure, capital structure, and industry structure. I provided technical guidance to the Office of General Counsel regarding the development of financial rules and regulations. In addition, I authored the Commission's rules regarding diversification and affiliated transactions, chaired the Commission's Committee on Leveraged Buyouts, supervised the finance bureau's regulatory analysts, co-developed and presented a seminar on public utility regulation to help educate the Florida Public Service Commission attorneys, and provided technical expertise to the Commission in all areas of public utility finance for all industries.

In February 1990, I accepted the position of Chief of Arbitrage Compliance in the Division of Bond Finance, Department of General Services. As Manager of the Arbitrage Compliance Section, I was responsible for assuring that over \$16 billion of State of Florida tax-exempt securities remained in compliance with the federal arbitrage requirements enacted by the Tax Reform Act of 1986. I provided investment advice to trust fund managers on how to maximize yields while remaining in compliance with the federal arbitrage regulations. I designed and implemented the first statewide arbitrage compliance system which included data gathering, financial reporting, and computation and analysis subsystems.

In July 1990, I founded Cicchetti & Company. Through Cicchetti & Company I provided financial research and consulting services, including the provision of expert testimony, in the areas of public utility finance, economics, and regulation. Topics I have testified on include cost of equity, capital structure, corporate structure, regulatory theory, cross-subsidization, industry structure, the overall cost of capital, incentive regulation, the establishment of the leverage formula for the water and wastewater industry, reconciling rate base and capital structure, risk and return, and the appropriate regulatory treatment of construction work in progress, used and useful property, construction cost recovery charges, and the tax gross-up associated with contributions-in-aid-of-construction.

In January, 2001, I joined C.H. Guernsey & Co. as a Senior Financial Consultant and Manager of the Tallahassee, Florida Office.

In 1985, I was certified by the Florida Public Service Commission as a Class B Practitioner in the areas of finance and accounting.

In June, 1985, I published an article in Public Utilities Fortnightly titled "Reconciling Rate Base and Capital Structure: The Balance Sheet Method." In September, 1986, I was awarded third place in the annual, national, Competitive Papers Session sponsored by Public Utilities Reports, Inc., in conjunction with the University of Georgia and Georgia State University, for my

paper titled "The Quarterly Discounted Cash Flow Model, the Ratemaking Rate of Return, and the Determination of Revenue Requirements for Regulated Public Utilities." An updated version of that paper was published in the June, 1989 edition of the National Regulatory Research Institute Quarterly Bulletin. I subsequently served twice as a referee for the Competitive Papers Sessions. On June 15, 1993, I published an article on incentive regulation in *Public Utilities Fortnightly* titled "Irregular Incentives." On September 1, 2002, I published an article in *Public Utilities Fortnightly* titled "Gas Distribution: A Higher Risk Business.

I was awarded the designation Certified Rate of Return Analyst by SURFA in 1992. I am a member of the Financial Management Association International and have been listed in Who's Who in the World and Who's Who in America.

I have made public utility and finance related presentations to various groups such as the Southeastern Public Utilities Conference, the National Society of Rate of Return Analysts, the National Association of State Treasurers, and the Government Finance Officers Association.

ECONOMIC STATISTICS

	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>
CPI	3.0	3.0	2.6	2.8	2.9	2.3	1.5	2.2	3.4	2.8
GDP Price Index	2.7	2.6	2.3	2.5	2.1	1.9	1.2	1.4	2.1	2.4
10-Year Treasury	7.0	5.9	7.1	6.6	6.4	6.4	5.3	5.6	6.0	5.0

Inflation Forecast

30-Year treasury 5.0% - 30-Year TIPS 2.90%	2.10%
<i>Value Line</i> GDP Index - 2002 estimate	1.7%

Long-Term Treasury Forecast

	<u>4th 02</u>	<u>1st.-03</u>	<u>2nd-03</u>	<u>3rd-03</u>
<i>Blue Chip Financial Forecasts - Long-Term Treasury</i>	5.3	5.4	5.6	5.7

Source: *Value Line*, October 11, 2002
Bloomberg, October 4, 2002
Blue Chip Financial Forecasts, September 1, 2002

EQUITY RATIO COMPARISONS

MOODY'S NATURAL GAS DISTRIBUTION INDEX

<u>Company</u>	<u>Equity Ratio as a Percentage of Total Investor Capital</u>
AGL Resources	34.58%
Keyspan Corp.	33.58%
Laclede Group	42.64%
N.W. Nat'l Gas	49.42%
Peoples Energy (Illinois)	46.38%
WGL Holdings	<u>52.42%</u>
Average	43.17%

Source: Form 10-Q, for the period 6/30/02

Peoples Gas System (Florida) - Proposed 57.45%

Source: MFR's

Peoples Gas System (Florida) - Actual 12/31/01	53.68%
Tampa Electric	55.56%
Teco Energy, Inc.	41.36%

Source: MFR's, Form 10-Q, for the period 6/30/02

Natural Gas Distribution Industry (excluding short-term debt) 43.00%

Source: *Value Line*, 9/20/02

STANDARD & POOR'S RATIO GUIDELINES

Total Debt/Capitalization (%)

Company business risk profile		Rating category
		BBB
Average	5	51
	6	50
Peoples Gas System (Florida) - Proposed		42.55

Source: *Standard & Poor's*, Corporate Rating Criteria
MFR's

MOODY'S NATURAL GAS INDEX
INVESTMENT CHARACTERISTICS

	VALUE LINE SAFETY <u>RANK</u>	VALUE LINE <u>BETA</u>	EQUITY <u>RATIO</u>	S&P BOND <u>RATING</u>	REVENUES <u>(\$MILL)</u>
AGL RESOURCES	2	.70	34.58%	A-	2,240
KEYSPAN CORP.	2	.65	33.58%	A	6,100
LACLEDE GAS	2	.60	42.64%	A+	750
N.W. NAT'L GAS	2	.60	49.42%	A	705
PEOPLES ENERGY	1	.75	46.38%		1,440
WGL HOLDINGS	<u>1</u>	<u>.65</u>	<u>52.42%</u>	<u>AA-</u>	<u>975</u>
AVERAGE	1.67	.65	43.17%	A	2,035

Source: *Value Line*, Ed. 3, 9/20/02
S&P Bond Guide, 9/02

Two-Stage, Annually Compounded
Discounted Cash Flow Model

	Expected Dividends					Est. EPS <u>2006</u>	Est. ROE <u>2006+</u>	Dividend Growth <u>2006+</u>	Stock Price <u>9/02</u>
	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>				
AGL RES.	1.08	1.08	1.11	1.13	1.16	2.10	13.00	5.82%	22.61
Keyspan	1.78	1.78	1.81	1.84	1.87	3.70	13.00	6.43%	33.41
Laclede	1.36	1.38	1.40	1.43	1.45	2.25	12.00	4.27%	23.61
N.W. Nat'l	1.26	1.27	1.30	1.32	1.35	2.60	11.00	5.29%	28.50
Peoples	2.08	2.12	2.16	2.20	2.24	4.30	12.00	5.75%	33.92
WGL	1.27	1.28	1.29	1.29	1.30	2.45	12.50	5.87%	23.69
Average	1.47	1.49	1.51	1.54	1.56	2.90	12.25	5.57%	27.62

The cost of common equity is calculated using a two-stage, annually compounded discounted cash flow model:

$$P_0(1-fc) = \sum_{t=1}^n \frac{D_t}{(1+k)^t} + \frac{D_n(1+gn)}{(k-gn)} * \frac{1}{(1+k)^t}$$

Solving the above equation for k using $P_0 = \$27.62$, $fc = 3\%$, and $n = 5$, provides a cost of common equity of: 10.58%

1) Data obtained or calculated from information provided in *Value Line*, Edition 3, 6/21/02.

2) The average stock price is the average of the high and low stock price for September 2002, Nomura Research Institute, Ltd.

RISK PREMIUM ANALYSIS

1992 - 2002

<u>MONTH</u>	<u>GAS INDEX COST OF EQUITY</u>	<u>RISK FREE RATE</u>	<u>RISK PREMIUM</u>
Oct 92	9.61	7.34	2.27
Nov	9.81	7.53	2.28
Dec	9.89	7.61	2.28
Jan 93	9.44	7.44	2.00
Feb	9.31	7.34	1.97
Mar	9.13	7.09	2.04
Apr	8.93	6.82	2.11
May	9.04	6.85	2.19
Jun	9.17	6.92	2.25
Jul	9.38	6.81	2.57
Aug	8.61	6.63	1.97
Sep	8.62	6.32	2.30
Oct	8.68	6.00	2.68
Nov	8.69	5.94	2.75
Dec	8.97	6.21	2.76
Jan 94	8.96	6.25	2.71
Feb	8.63	6.29	2.34
Mar	8.72	6.49	2.23
Apr	8.97	6.91	2.06
May	9.23	7.27	1.96
Jun	9.36	7.41	1.95
Jul	9.55	7.40	2.15
Aug	9.51	7.58	1.93
Sep	9.60	7.49	2.11
Oct	9.73	7.71	2.02
Nov	9.62	7.94	1.68
Dec	9.97	8.08	1.89
Jan 95	10.12	7.87	2.25
Feb	9.83	7.85	1.98
Mar	9.68	7.61	2.07
Apr	9.67	7.45	2.22

Exhibit No. _____ (MAC-7)

<u>MONTH</u>	<u>GAS INDEX COST OF EQUITY</u>	<u>RISK FREE RATE</u>	<u>RISK PREMIUM</u>
May 95	9.04	7.36	1.68
Jun	9.68	6.95	2.73
Jul	9.67	6.57	3.10
Aug	9.66	6.72	2.94
Sep	9.74	6.86	2.88
Oct	9.32	6.55	2.77
Nov	9.39	6.37	3.02
Dec	9.43	6.26	3.17
Jan 96	9.60	6.06	3.54
Feb	9.03	6.05	2.98
Mar	9.08	6.24	2.84
Apr	9.23	6.60	2.63
May	9.55	6.79	2.76
Jun	9.64	6.93	2.71
Jul	9.55	7.06	2.49
Aug	9.96	7.03	2.93
Sep	9.81	6.84	2.97
Oct	10.07	7.03	3.04
Nov	9.76	6.81	2.95
Dec	9.62	6.48	3.14
Jan 97	9.74	6.55	3.19
Feb	9.57	6.83	2.74
Mar	9.66	6.69	2.97
Apr	9.77	6.93	2.84
May	10.15	7.09	3.06
Jun	10.02	6.94	3.08
Jul	9.90	6.77	3.13
Aug	9.92	6.51	3.41
Sep	9.95	6.58	3.37
Oct	9.86	6.50	3.36
Nov	9.87	6.33	3.54
Dec	9.58	6.11	3.47
Jan 98	9.56	5.99	3.57
Feb	9.37	5.81	3.56
Mar	9.49	5.89	3.60

<u>MONTH</u>	<u>GAS INDEX COST OF EQUITY</u>	<u>RISK FREE RATE</u>	<u>RISK PREMIUM</u>
Apr 98	9.53	5.95	3.58
May	9.44	5.92	3.52
Jun	9.64	5.93	3.71
Jul	10.34	5.70	4.64
Aug	9.92	5.68	4.24
Sep	9.96	5.54	4.42
Oct	9.87	5.20	4.67
Nov	9.87	5.01	4.86
Dec	9.58	5.25	4.33
Jan 99	9.56	5.06	4.50
Feb	9.78	5.16	4.62
Mar	10.30	5.37	4.93
Apr	10.42	5.58	4.84
May	10.49	5.55	4.94
Jun	10.20	5.81	4.39
Jul	10.14	6.04	4.10
Aug	9.89	5.98	3.91
Sep	9.97	6.07	3.90
Oct	10.14	6.07	4.07
Nov	10.17	6.26	3.91
Dec	10.13	6.15	3.98
Jan 00	10.45	6.35	4.10
Feb	10.96	6.63	4.33
Mar	11.36	6.23	5.13
Apr	11.28	6.05	5.23
May	10.69	5.85	4.84
Jun	10.55	6.15	4.40
Jul	10.52	5.93	4.59
Aug	10.37	5.85	4.52
Sep	10.15	5.72	4.43
Oct	10.03	5.83	4.20
Nov	9.87	5.80	4.07
Dec	9.68	5.78	3.90
Jan 01	9.29	5.49	3.80
Feb	9.45	5.54	3.91
Mar	9.59	5.45	4.14

<u>MONTH</u>	<u>GAS INDEX COST OF EQUITY</u>	<u>RISK FREE RATE</u>	<u>RISK PREMIUM</u>
Apr 01	9.73	5.34	4.39
May	9.60	5.65	3.95
Jun	9.59	5.78	3.81
Jul	9.64	5.67	3.97
Aug	10.06	5.61	4.45
Sep	10.14	5.48	4.66
Oct	10.27	5.48	4.79
Nov	10.28	5.32	4.96
Dec	10.33	5.12	5.21
Jan 02	10.42	5.48	4.94
Feb	10.37	5.45	4.92
Mar	10.62	5.56	5.06
Apr	10.40	5.88	4.52
May	10.13	5.82	4.31
Jun	10.18	5.79	4.39
Jul	10.35	5.66	4.69
Aug	10.72	5.54	5.18
Sep	10.57	5.23	<u>5.34</u>
AVERAGE RISK PREMIUM			3.44

Source: *Value Line* 1992-2002
Federal Reserve Board

RISK PREMIUM ANALYSIS

RESULTS

Risk Premium Cost of Equity = Estimated Risk Free Rate + Equity Risk Premium

$$9.00\% = 5.5\% + 3.50\%$$

Source: *Blue Chip Financial Forecasts*, 9/02

SUMMARY OF RESULTS

DCF Cost of Equity	9.00%
Risk Premium Cost of Equity	<u>10.60%</u>
Average	9.80%
Bond Yield Differential	<u>.30%</u>
Cost of Equity	10.10%

CAPITAL STRUCTURE

	<u>Amount</u>	<u>%</u>	<u>Cost</u>	<u>After-Tax Wtd. Cost</u>	<u>Pre-Tax Wtd. Cost</u>
Common Equity	\$219,321,040	44.75	10.10%	4.52%	7.43%
Long-term Debt	187,039,604	38.17	7.81	2.98	2.98
Short-term Debt	32,281,436	6.59	4.00	.26	.26
Customer Deps.	27,148,675	5.54	6.81	.38	.38
Tax Credits	686,068	.14	0.00	0.00	0.00
Deferred Taxes	<u>23,571,457</u>	<u>4.81</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
	\$490,048,281	100%		8.14%	11.05%

TIE Ratio = 3.05X

Note: Deferred taxes were increased \$7,992,760 with a corresponding pro rata reduction to investor funds. Equity was reduced \$32,666,886 to 50% of investor capital with a corresponding increase to long-term debt. The remaining adjustments were pro rata to reconcile rate base and capital structure.