

Exhibit No.:

Issues:

Merits of Incentive - based
Ratemaking Mechanism; Cost of
Common Equity; Appropriate
Level for Sharing of Earnings

Witness:

Charles A. Benore

Sponsoring Party:

Western Resources, Inc. and
Kansas City Power & Light
Company

Type of Exhibit:

Direct Testimony

Case No.:

IN THE MATTER OF THE
MERGER APPLICATION OF
WESTERN RESOURCES, INC. AND
KANSAS CITY POWER & LIGHT COMPANY

DIRECT TESTIMONY
OF
CHARLES A. BENORE
WESTERN RESOURCES, INC.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI
DIRECT TESTIMONY
OF
CHARLES A. BENORE
PRESIDENT
BENORE FINANCIAL CONSULTING, INC.
CASE NO. _____

I. INTRODUCTION

1
2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. Charles A. Benore, President, Benore Financial Consulting, Inc., 756 Pequot
4 Avenue, New London, CT. 06320.

5 **Q. PLEASE DESCRIBE THE FINANCIAL CONSULTING SERVICES OF BENORE**
6 **FINANCIAL CONSULTING, INC. (BFC).**

7 A. BFC provides testimony and advisory consulting services to utility companies.
8 Because of my three decades of experience as a utility security analyst, I have
9 considerable experience concerning capital markets and investor attitudes and
10 requirements concerning utility companies and their securities.

11 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND BUSINESS**
12 **EXPERIENCE.**

13 A. I am a graduate of Ohio University with a Bachelor of Science degree in finance,
14 and of the Ohio State University with a Master of Arts degree in economics. I was
15 elected to Phi Kappa Phi and Beta Gamma Sigma honorary societies.

16 I have presented testimony before 28 state public service commissions, the
17 Federal Energy Commission, and the Securities and Exchange Commission on rate
18 of return and other subjects, and have appeared before several Congressional

1 subcommittees in the U.S. House of Representatives and the U.S. Senate. I have
2 worked as a utility security analyst for about 30 years. In each of the 22 years that
3 *Institutional Investor* magazine polled investors while I worked as a utility analyst,
4 I was ranked as a leading analyst. I served on an Informational Task Force to the
5 Energy Transition Team of the Reagan Administration on "Recommendations to
6 Restore the Financial Health of the U.S. Electrical Power Industry," and as a task
7 force member of the Financial Accounting Standards Board on utility accounting
8 from an investor perspective. I also served for more than fifteen years as a faculty
9 member of the Bank of New York (formerly Irving Trust) Utility Finance Seminars
10 for regulators and management on investor attitudes and the cost of common stock.

11 A more complete statement of my occupational experience and educational
12 achievements, and other qualifications is attached to this testimony as Schedule
13 CAB-1.

14 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

15 A. I have been retained by Western Resources, Inc. and Kansas City Power & Light
16 Company (merged company) to: (1) discuss the concept of incentive regulation and
17 why it is appropriate for the merged company and its customers, (2) evaluate the
18 reasonableness of the incentive features for the merged company's proposed
19 regulatory plan, and (3) ascertain the merged company's cost of common stock.

1 II. SUMMARY OF RECOMMENDATIONS

2 **Q. PLEASE SUMMARIZE THE INCENTIVE REGULATORY PLAN SECTION OF**
3 **YOUR TESTIMONY.**

4 A. The merged company's proposed incentive regulatory plan, which is outlined in Mr.
5 Kitchen's testimony, provides benefits not available under rate of return regulation
6 through the alignment of customer and company interests. The merged company's
7 regulatory plan will stimulate management to reduce costs in order to provide direct
8 benefits to customers and to improve profits. The regulatory plan will also provide
9 a bridge to a more competitive electric power industry.

10 The incentive regulatory plan contains the elements of a good plan, provides the
11 opportunity for customers and shareholders to share in the benefits of the merger,
12 places at least as much risk on the merged company as its customers, and protects
13 the merged company's financial integrity.

14 I recommend the plan because it is expected to improve management
15 investment and operational performance through financial incentives, result in lower
16 energy bills to customers, stimulate additional customer services and revenue
17 sources, and maintain or improve customer service.

18 It is appropriate to share merger savings between the merged company and
19 customers to encourage management to take risks that increase efficiencies,
20 reduce costs, and benefit customers. It is also appropriate to treat transaction costs
21 and the costs to achieve the merger like other costs to improve efficiency, or as an
22 above-the-line cost. This will also enable the merged company to have a

1 reasonable opportunity to earn its allowed return and foster a constructive investor
2 attitude about regulatory risk.

3 **Q. PLEASE SUMMARIZE YOUR CONCLUSIONS ABOUT THE MERGED**
4 **COMPANY'S COST OF COMMON STOCK.**

5 A. As competition in the electric power industry increases, it is appropriate for an
6 electric power company's return on common stock equity to move toward the return
7 on common stock equity experienced by larger companies in American industry,
8 which for the five years 1993-projected 1997 are expected to average 19.4 percent.
9 At this stage of restructuring of the electric power industry, a 19 percent to 20
10 percent return on common stock equity is not warranted especially since
11 transmission and distribution investment is likely to continue under the regulatory
12 risk umbrella for the foreseeable future. However, it is necessary for allowed returns
13 on common stock for electric power companies to move from the 11 percent to 12
14 percent range upward to 13 percent because of rising business risk due to
15 competition.

16 In determining the merged company's cost of common stock, a group of eight
17 comparable companies was used to improve the accuracy of the cost estimate. The
18 merged company's cost of common stock was measured using four different tests.
19 The first test was the Equity Risk Premium Model, or bond yield plus equity risk
20 premium, which indicated a cost of 13.5 percent including flotation costs. The
21 second test employed the Capital Asset Pricing Model, and four different versions
22 indicated an average cost of 13.1 percent. The third test was the Comparable

1 Earnings Model, which indicated a cost of 12.2 percent. The End-Result DCF
2 model was the final test, and it indicates a cost of 12.5 percent including flotation
3 costs.

4 The range of cost was 12.2 percent to 13.5 percent. Risk for the merged
5 company is moderately higher than for its comparable companies, but its risk
6 should decline because of larger scale and resources than as two stand-alone
7 companies. My judgment is that the merged company's cost of common stock
8 equity ranges from 12.25 percent to 13.5 percent. My recommendation is 12.9
9 percent, or the mid-point of the range.

10 A financial integrity check was also performed with a 12.9 percent return on
11 common stock equity for the merged company, which indicated that the beginning
12 bond rating would likely be a strong, triple B. The merged company's regulatory
13 plan will provide it an opportunity it to earn a 12.9 percent return on common equity
14 and share amounts with its customers beyond this level. This will help the merged
15 company to achieve an A bond rating over the next several years.

16 III. INCENTIVE REGULATION

17 **Q. WHAT IS INCENTIVE REGULATION?**

18 A. Incentive regulation is a modification to traditional rate of return regulation that
19 employs specific financial incentives allowing utility managements to: 1) increase
20 investment and operational efficiency, 2) lower costs, and 3) increase customer

1 satisfaction. Incentive regulation can also serve as an important bridge to
2 competitive electricity markets.

3 **Q. WHY WILL THE REGULATORY PLAN DESCRIBED IN MR. KITCHEN'S**
4 **TESTIMONY ENABLE THE MERGED COMPANY TO ACHIEVE IMPROVED**
5 **RESULTS FOR ITS CUSTOMERS?**

6 A. The traditional regulatory system is unlikely to maximize efficiency and does not
7 provide a bridge to a more competitive industry in the future. A basic principle that
8 guides traditional rate of return regulation is that revenues equal the cost of
9 providing utility services. As a result, investment and operational costs that are
10 prudently incurred are passed along to customers. Therefore, managers have an
11 incentive to make safe investment and operational decisions that are likely to pass
12 prudence review, but may not optimize resources. This has often been referred to
13 as "cost-plus" regulation because of the perceived lack of incentives for achieving
14 results more comparable to those of competitively operated companies.

15 The merged company's regulatory plan also increases regulatory efficiency.
16 The regulatory plan should decrease the need for lengthy regulatory proceedings.
17 Rate proceedings under the current regulatory system are expensive and consume
18 both regulators' and management's time that could probably be better used in other
19 pursuits.

20 **Q. IN WHAT WAY IS THE MERGED COMPANY'S REGULATORY PLAN SUPERIOR**
21 **TO TRADITIONAL, OR RATE OF RETURN REGULATION?**

1 A. The merged company's regulatory plan is superior to traditional rate of return
2 regulation for several reasons. These include:

- 3 1. Its plan provides a greater incentive to further reduce costs once a company has
4 earned its allowed return. Under the merged company's plan, which aligns the
5 interests of customers and the merged company, both company and customers
6 benefit from reductions in costs after the allowed return has been achieved
7 through lower bills for customers and higher earnings for the merged company.
8 Under rate of return regulation, companies would have already maximized their
9 profits and common stock value, and would be less motivated to pursue further
10 cost reductions after the allowed rate of return was reached.
- 11 2. Its plan provides a greater incentive to exploit all reasonable opportunities to
12 reduce costs in a timely fashion. Traditional regulation may lead some
13 companies to postpone cost reductions to offset future cost increases rather
14 than realize cost reductions now, and possibly incur a rate reduction. As a
15 result, there may be less incentive to continue to aggressively pursue cost
16 reductions in the future.
- 17 3. Its plan rewards good management while providing benefits to customers.
18 Under traditional regulation, ineffective management may increase the
19 perceived volatility of return and risk to investors, and lead to higher allowed
20 returns and customer bills than would be granted comparable, well-managed
21 companies with lower perceived risk.

1 4. Additionally, its plan sends the proper signal to management to take reasonable
2 risks in the interests of better serving customer needs. Under traditional
3 regulation, companies have less of an incentive to make changes to reduce
4 costs, because if the changes do not work, the company may be penalized
5 through traditional prudence reviews. Further, if the changes do work, the
6 benefits are passed exclusively to customers. Consequently, management may
7 prefer to make safe investment and operational decisions, which may not be the
8 best decisions for customers.

9 **Q. YOUR CRITICISMS OF RATE OF RETURN REGULATION SUGGEST THAT**
10 **REGULATORY PERFECTION IS AN UNREASONABLE EXPECTATION.**
11 **PLEASE COMMENT.**

12 A. I believe it is unreasonable to expect any regulatory system to be perfect.
13 However, I do strongly believe that financial incentives work, and therefore, that
14 improvements through the merged company's regulatory plan can be
15 accomplished.

16 **Q. WHY DO YOU BELIEVE THAT INCENTIVE REGULATION WILL HELP TO**
17 **RESOLVE THE WEAKNESSES IN RATE OF RETURN REGULATION?**

18 A. Providing management with tangible, financial incentives directed toward the
19 public interest will better align the interests of customers and the company. The
20 merged company will have an increased incentive to operate efficiently because
21 the outcome of its regulatory plan is an opportunity to gain from its decisions.
22 That is, higher profits are achieved if costs are reduced, and losses (lower

1 returns than achievable under traditional rate of return regulation, as well as
2 foregone profits) will occur if poor investment and operational decisions are
3 made.

4 Financial incentives, therefore, will help to improve the maximization of merger
5 savings, achievement of non-merger related savings, and development of new
6 services and sources of revenues. This should result in lower energy bills to
7 customers than under rate of return regulation, while maintaining or improving
8 service standards to customers.

9 **Q. ARE THERE OTHER REASONS TO BELIEVE INCENTIVE REGULATION WILL**
10 **HELP TO IMPROVE TRADITIONAL RATE OF RETURN REGULATION?**

11 **A.** Yes. Financial incentives -- the profit motive -- are an integral part of the American
12 economy. Business recognizes the importance of incentives as evidenced by their
13 use in marketing activities and the use of bonuses for the achievement of specified
14 goals in other business activities. Incentives are used and have persisted for
15 decades because they work.

16 From another perspective, financial incentives will cause managers to increase
17 creative thinking, increase focus on improving management systems and decision
18 making capabilities, and increase time and energy devoted to improving cost
19 efficiency, and improving service to customers.

20 **Q. YOU MENTIONED EARLIER THAT THE PROPOSED REGULATORY PLAN**
21 **PROVIDES A BRIDGE TO A COMPETITIVE ELECTRIC POWER INDUSTRY. IS**
22 **COMPETITION A REAL PROSPECT FOR THE ELECTRIC POWER INDUSTRY?**

1 A. Yes. Competition, or customer choice, is a very real prospect. In fact, it is already
2 reality for many wholesale customers. At the retail level, customer choice is being
3 implemented on an experimental basis in some regulatory jurisdictions and being
4 phased-in others. Nearly all regulatory commissions in the United States have it
5 under consideration.

6 In its April 21, 1997, report, Regulatory Research Associates (RRA) presented
7 a summary of activity in this area. The RRA report placed each of the 49 state
8 commissions in one of five tiers "based on their relative progress toward industry
9 restructuring."

10 Tier I is where restructuring has already been adopted and includes California,
11 Massachusetts, New Hampshire, New Mexico, Pennsylvania, and Rhode Island.
12 Only four states are included in Tier V where "no substantive activity is underway
13 or a decision has been made that no action is necessary." In a similar October 22,
14 1996, Restructuring Update, there were 12 states in Tier V. Of course, there is also
15 activity in the U.S. Congress that could impact the ability of customers to choose
16 their energy supplier.

17 **Q. HOW DOES INCENTIVE REGULATION IN THE MERGED COMPANY'S**
18 **REGULATORY PLAN BUILD A BRIDGE FOR THE MERGED COMPANY TO A**
19 **MORE COMPETITIVE ELECTRIC POWER INDUSTRY?**

20 A. Incentive regulation stimulates management to seek new revenue sources in order
21 to improve profits, to make prudent and efficient investments, and to reduce costs
22 even though its return rises above allowed levels under traditional rate of return

1 regulation. As a result, management's focus under the merged company's
2 regulatory plan is shifted toward reducing its customer's energy bills through cost
3 reductions while improving profits. This is similar to the incentives that drive
4 competitive companies, where price, quality, and service guide consumer choices.
5 The merged company's regulatory plan will help in its transition to a more
6 competitive electric power industry by simulating the competitive market-place.

7 **Q. IS IT STILL APPROPRIATE TO HAVE INCENTIVE REGULATION, EVEN**
8 **THOUGH BOTH WESTERN RESOURCES AND KCPL HAVE RECENTLY**
9 **REDUCED RATES AND PLAN TO FURTHER REDUCE RATES IN THE**
10 **FUTURE?**

11 A. Yes. The incentive plan to share earnings at certain levels of return on equity will
12 pass merger benefits to customers quickly and efficiently. It is also significant that
13 increased earnings unrelated to the merger itself will also flow to customers without
14 expensive rate proceedings, management audits or regulatory lag.

15 **Q. HAVE INCENTIVE SYSTEMS SUCH AS PROPOSED BY THE MERGED**
16 **COMPANY BEEN ACCEPTED BY REGULATORS?**

17 A. Yes. Various forms of incentive regulation have been used by regulators. As
18 previously noted, the regulatory plan proposed by the merged company is similar
19 to the alternative regulatory plans recently approved by the Missouri Public Service
20 Commission. Various other incentive regulatory plans have been determined to be
21 in the public interest by other regulatory commissions.

22 **Q. WHAT ARE THE FEATURES OF A GOOD INCENTIVE REGULATORY SYSTEM?**

1 A. An incentive system should be:

2 1. Simple and easy to understand;

3 2. Well defined to avoid misunderstandings and easily monitored with readily
4 available information;

5 3. Constructed to mesh well with the existing regulatory model;

6 4. Structured with sufficient financial incentives to stimulate the achievement of
7 desired results which are influenced by, or under the control of, utility managers;
8 and

9 5. Structured so that risks and rewards are reasonably balanced between
10 customers and the company, and with specific objectives and reasonable
11 standards that are known in advance.

12 It is also necessary that the regulatory plan be in the public interest, including
13 the maintenance of an acceptable level of financial integrity for the company and
14 an acceptable level of service quality for customers.

15 **Q. PLEASE BRIEFLY DESCRIBE THE REGULATORY PLAN PROPOSED BY THE**
16 **MERGED COMPANY IN THIS PROCEEDING.**

17 A. The merged company's regulatory plan, as described in Mr. Kitchen's testimony, is
18 similar to that in the Stipulation and Agreement approved in Case No. EM-96-149
19 by the Missouri Public Service Commission.

20 **Q. PLEASE EXPLAIN THE MERGED COMPANY'S PROPOSAL FOR SHARING**
21 **SAVINGS WITH ITS CUSTOMERS.**

1 A. Under our proposal, the merged company would share achieved, regulated equity
2 earnings greater than a 12.90 percent ROE with customers as specified in the table
3 in Mr. Kitchen's testimony. If the merged company earns between 12.90 percent
4 and 14.00 percent on equity in its regulated operations in any calendar year, one-
5 half of the earnings in that range would be returned to customers. For regulated
6 earnings above 14.00 percent and at or below 16.0 percent, 75 percent of the
7 earnings in the earnings band are returned to customers. Ninety percent of
8 regulated earnings in excess of 16.0 percent would be returned to customers.

9 **Q. HOW DOES THE PROPOSED REGULATORY PLAN PROTECT THE FINANCIAL**
10 **INTEGRITY OF THE MERGED COMPANY?**

11 A. The financial integrity of the merged company is protected by provisions which
12 allow it to seek rate relief if the regulated return on common stock equity drops
13 below 10.5 percent over the term of the regulatory plan and in the event of material
14 changes. As noted by Mr. Kitchen, material changes include, but are not limited to,
15 such events as acts of God, changes in economic conditions, changes in edicts or
16 regulation, state and federal tax changes, prolonged and prudent plant outages,
17 and the implementation of retail wheeling.

18 **Q. DO YOU RECOMMEND THAT THE INCENTIVE SYSTEM DESCRIBED FOR THE**
19 **MERGED COMPANY BE ADOPTED BY THIS COMMISSION, AND IF SO, WHY?**

20 A. Yes, for these reasons:

21 The merged company's regulatory plan clearly meets the criteria of a fair and
22 reasonable regulatory plan discussed earlier in my testimony.

1 Further, the beginning earnings level for the sharing grid represents a
2 reasonable return on the merged company's common stock equity as shown in the
3 following section of my testimony that demonstrates a 12.9 percent return on
4 common stock equity, including flotation costs, is justified.

5 The three, sharing-band-earnings-levels (12.90 percent through 14.0 percent,
6 above 14.0 percent through 16.0 percent, and above 16.0 percent) are reasonable
7 in my judgment, from a customer perspective, as are the sharing band percentages.

8 Moreover, the proposed merger is expected to result in substantial cost savings
9 that will be shared between customers and the merged company. Maximization of
10 merger savings and the realization of other potential savings will be spurred by the
11 incentive features in the regulatory plan that will also benefit customers. The
12 improved alignment between the interests of customers and the merged company
13 should also maintain or improve existing service level standards.

14 **Q. WHY ARE THE PROPOSED EARNINGS-LEVEL-SHARING-BAND, SHARING**
15 **PERCENTAGES APPROPRIATE?**

16 A. For the first earnings sharing band, 12.90 percent through 14.0 percent, balance
17 and fairness between customers and the merged company along with a
18 preponderance of regulatory experience, support equal sharing between customers
19 and the merged company.

20 For the second and third earnings sharing bands, from 14.01 percent through
21 16.0 percent, and over 16.0 percent, it is reasonable to assume that ever increasing
22 economies become progressively harder to achieve. Therefore, all else being

1 equal, it would follow that the second and subsequent earnings sharing bands
2 should provide higher incentives, or increasing sharing percentages for the merged
3 company.

4 Nonetheless, unequal sharing percentages favoring customers for the second
5 and third sharing bands, which is part of the merged company's regulatory plan,
6 ensures that customers do not bear more risk than the merged company.

7 Setting the sharing percentage in the second earnings sharing band at 25
8 percent, instead of a lower level, is necessary so that sufficient incentive is present
9 to stimulate the focus, creative energy, and additional time and effort to produce
10 further efficiency gains.

11 The third earnings sharing band continues the trend of declining sharing
12 percentages, and further ensures that customers do not incur more risk than the
13 merged company.

14 **Q. WHY DO YOU BELIEVE CUSTOMERS ARE TREATED FAIRLY UNDER THE**
15 **PROPOSED INCENTIVE MECHANISM?**

16 A. The financial incentives in the merged company's regulatory plan will help to better
17 ensure that customers will incur gains through lower energy bills. Moreover, the
18 sharing mechanism is weighted in favor of customers versus the merged company.
19 For example, the merged company:

- 20 1. Foregoes 100 percent of returns between its cost of common stock and the first
21 sharing band since sharing begins immediately after earning its cost of common
22 stock, and

2. Passes back most of the savings in the second earnings sharing band where customers receive 75 percent of earnings, and almost all in the third earnings sharing band where 90 percent is returned to by customers.

Q. IS IT APPROPRIATE TO SHARE THE MERGER SAVINGS BETWEEN CUSTOMERS AND THE MERGED COMPANY, AND FOR THE MERGED COMPANY TO RECOVER THE COSTS OF ACHIEVING THE MERGER?

A. Yes. Sharing the merger savings is justified in order to encourage the merged company to take risks that increase efficiencies, reduce costs, and benefit customers.

Transaction costs and costs to achieve the merger should be treated like any other investment or operating costs to improve efficiency to lower costs as an "above the line" cost. Recognition of transaction costs and costs to achieve as part of the cost of service is also necessary so that investors have a reasonable opportunity to earn their required return in order to enhance the merged company's ability to attract capital, and to foster a constructive investor attitude about regulatory risk.

IV. COST OF COMMON STOCK FOR THE MERGED COMPANY

GUIDING PRINCIPLES

Q. WHAT ECONOMIC AND FINANCIAL PRINCIPLES DID YOU RELY ON IN DETERMINING THE MERGED COMPANY'S COST OF COMMON STOCK CAPITAL?

1 A. The merged company, like other investor-owned electric companies, is owned and
2 financed by investors who invest savings into its securities with the expectation of
3 earning a fair, risk-adjusted return. Investors are guided by the principle that
4 returns should rise and fall with higher and lower levels of risk. U.S. government
5 bond rates of return represent to them the cost of lowest risk, long-term capital.

6 For a given level of risk, investors attempt to maximize the return on their
7 savings and invest in those companies that provide the highest, expected return
8 relative to the level of risk. Therefore, rational investors will not invest in securities
9 that provide less than fair, risk-adjusted returns across markets (among electric
10 common stocks, and versus other common stocks and bonds).

11 The choice of investment is voluntary, and investors have thousands of
12 alternatives in which to invest. Since investors invest to earn as high a return as
13 possible for a given level of risk, or the highest return on a risk-adjusted basis
14 across markets, the merged company's securities must offer sufficiently attractive
15 returns so that investors will invest in them.

16 Another important consideration in making the merged company's securities
17 sufficiently attractive to investors is to recognize that the merged company, unlike
18 many other companies, cannot stop necessary investments in generation,
19 transmission, and distribution plant, or legislated environmental investment, when
20 the availability of capital is constrained in the market, as it is from time to time.
21 Customers expect service to be there on demand. Therefore, the merged company,
22 which provides customers with indispensable energy services must be financially

1 strong to cope with unforeseen events, and its securities must be attractive enough
2 to access capital during adverse as well as more normal, market conditions.

3 The investor, therefore, is critical to the process of providing electric and natural
4 gas services to the merged company's customers. Existing investors expect and
5 deserve fair treatment. New investors must be induced to invest in the merged
6 company's securities instead of thousands of other investment possibilities.

7 **Q. WHAT LEGAL PRINCIPLES DID YOU RELY ON IN DETERMINING THE**
8 **MERGED COMPANY'S COST OF COMMON STOCK CAPITAL?**

9 A. I relied on my understanding of the U.S. Supreme Court decisions in the Hope,
10 Bluefield and Permian Basin cases.

11 Hope: "...By that standard the return to the equity owner should be
12 commensurate with returns on investments in other enterprises having
13 corresponding risks. That return, moreover, should be sufficient to assure
14 confidence in the financial integrity of the enterprise, so as to maintain its credit and
15 attract capital."

16 Bluefield: "The return should be reasonable, sufficient to assure confidence in
17 the financial soundness of the utility, and should be adequate, under efficient and
18 economical management, to maintain and support its credit and enable it to raise
19 the money necessary for the proper discharge of its public duties."

20 Permian Basin: Regulatory decisions should "...reasonably be expected to
21 maintain financial integrity, attract necessary capital, and fairly compensate
22 investors for the risks they have assumed...."

1 These cases establish the legal principles that 1) investors are entitled to the
2 opportunity to earn a fair return on their investment in prudently managed
3 companies, 2) the merged company should have an acceptable level of financial
4 integrity so that investors have confidence in it, and 3) the merged company's
5 securities should be sufficiently attractive to investors to assure that capital
6 attraction can occur.

7
8 INVESTMENT STANDARDS AND CAPITAL AVAILABILITY

9 **Q. PLEASE DESCRIBE INVESTMENT STANDARDS, AND CAPITAL AVAILABILITY**
10 **AS THEY RELATE TO THE MERGED COMPANY.**

11 A. The U.S. economy is currently operating at a relatively low level of inflation, and
12 investors generally believe that inflation will be contained at about 3 percent in
13 1997 and 1998, as shown by the April 1997, Blue Chip Economic Forecast. But any
14 appreciable increase in inflation would likely cause investors to adversely reassess
15 the outlook for investments. Meanwhile, real Gross Domestic Product is projected
16 to slow from its above sustainable level, growth rate in the first quarter of 1997, and
17 experience average growth for 1997 of 2.8 percent and 2.0 percent for 1998.

18 Moderate growth and slow inflation are constructive backdrops for both the stock
19 and bond markets. In the financial markets, capital is readily available at this time,
20 and in the foreseeable future, for companies with good financial credentials and
21 investment outlooks.

1 Other than the ability to attract capital in even difficult capital markets, a
2 financially healthy merged company is also important to holding and attracting good
3 employees and management, providing the financial resources for customer
4 services, and reinforcing a culture of providing reliable energy services to all
5 customers at the lowest reasonable cost.

6 **Q. ARE INVESTORS BECOMING MORE CAUTIOUS ABOUT INVESTING IN**
7 **ELECTRIC COMMON STOCKS?**

8 A. Yes. This stems from the very real prospect of regulatory restructuring of the
9 electric power industry. The concern about competition began in earnest in
10 September and October of 1993, and coincided with indications that Standard &
11 Poor's would downgrade the bond ratings of many electric power companies, and
12 the Edison Electric Institute's Financial Conference Program that caused investors
13 to recognize that business risk for electric power companies was rising.

14 Investor concern is apparent when examining the chart shown as Schedule
15 CAB-2 that shows the relative price performance of Standard & Poor's Electric Power
16 Companies versus the S&P Composite of Common Stocks, or the S&P 500. Astonishingly,
17 since the onset of investor concerns about competition in September 1993, the S&P
18 Electrics have fallen in price by 13 percent compared to increase of 74 percent for the
19 stock market, or the S&P 500 Composite of Common Stocks.

20 This is an awesome revaluation of an industry as large as the electric power
21 industry. Occasionally, revaluations of this magnitude occur for a high risk common stock,

1 but not to the best of my knowledge for an entire industry that is assumed to have below
2 average risk securities, and over so short a period of time.

3 Clearly, electric common stocks have badly lagged behind the market since
4 late 1993. It is obvious, therefore, that investors are more cautious about investing
5 in electric utility common stocks, which also means that they will be more selective
6 in their investments, and will require higher financial standards to mitigate the rising
7 business risk of investing in electric stocks.

8 Simply, this is a bad sign from investors. Investors have preferred to invest their
9 money elsewhere. There have been buyers for electric common stocks, but only
10 at ever decreasing prices relative to other common stocks. It is obvious, therefore,
11 that electric power companies have not been in a competitive position to attract
12 capital from investors under reasonable terms.

13 Further, bond rating agencies have tightened standards for electric utility bond
14 ratings generally to reflect concerns about competition. Standard & Poor's Curtis
15 Moulton, who is in charge of rating utility companies, noted at a seminar that the
16 current standards used by Standard & Poor's are satisfactory for the next two or
17 three years, but that he envisioned the standards will ultimately have to approach
18 the same standards as for industrial companies because of rising business risk
19 reflecting competition in the electric power industry.

20 Therefore, as competition continues to increase in the electric power industry,
21 bond rating agencies and investors are expected to require still higher financial
22 standards to safeguard against the risks of increased competition. These risks

1 include loss of wholesale customers, and ultimately retail customers with a possible,
2 substantial reduction in the firm's profitability and the value of its common stock.

3 **Q. DID THE UNDER PERFORMANCE OF ELECTRIC COMMON STOCKS SINCE**
4 **THE FALL OF 1993 INCLUDE THE MERGED COMPANY'S COMMON STOCK**
5 **(WR AND KCPL) AS WELL?**

6 A. Yes.

7 **Q. WHAT ARE YOUR CONCLUSIONS ABOUT THE ABILITY OF THE MERGED**
8 **COMPANY TO ATTRACT CAPITAL?**

9 A. The merged company can attract capital at this time. However, investment
10 standards are rising and are likely to continue to rise (more reward to protect
11 against rising business risk due to competition), and investors have been
12 disappointed about the performance of the merged company's common stock, and
13 are sending a message that the return for investors in the merged company's
14 common stock has been inadequate relative to other common stock investment
15 alternatives. As more and more investors become disappointed, the pool of
16 investors willing to buy the merged company's common stock will disappear unless
17 reasonable returns are in prospect to compensate them for the now higher business
18 risk present for electric companies including the merged company.

19 Importantly, the merged company will be larger with greater scale and resources
20 that should help to mitigate competition risk, but higher returns, nonetheless, will
21 still be required to compensate investors for the higher risk now present in the
22 merged company. As competition increases in the electric power industry, the

1 returns expected by investors will move towards those being earned by larger,
2 established companies in American industry that are subject to competition.

3 **Q. WHAT RETURN ON COMMON STOCK EQUITY ARE LARGER, ESTABLISHED**
4 **COMPANIES IN AMERICA EARNING ON COMMON STOCK EQUITY?**

5 A. As shown on page 2, of Schedule CAB-2, the return on average common stock
6 equity for the S&P 500 for the five years 1993-97 is 19.4 percent.

7 **Q. ARE YOU IMPLYING THAT THE RETURN ON COMMON STOCK EQUITY FOR**
8 **THE MERGED COMPANY NEEDS TO BE 19.4 PERCENT?**

9 A. No. But as business risk rises, it is necessary for allowed returns on common stock
10 equity for electric power companies to rise from the 11 to 12 percent range to about
11 13 percent at this stage of the progression toward customer supplier choice. As
12 developed in the balance of my testimony, I recommend a 12.9 percent return on
13 the common stock of the merged company. The 12.9 percent return recognizes the
14 necessity of a higher level of compensation for the use of investor capital in the
15 higher business risk environment that the merged company now faces.

16 COMPARABLE COMPANIES

17 **Q. BEFORE BEGINNING YOUR ANALYSIS OF THE MERGED COMPANY'S COST**
18 **OF COMMON STOCK, DO YOU BELIEVE IT IS NECESSARY TO USE A GROUP**
19 **OF COMPARABLE COMPANIES FOR DETERMINING THE MERGED**
20 **COMPANY'S COST OF COMMON STOCK?**

1 A. Yes. I believe it is necessary to use a group of comparable companies to determine
2 the merged company's cost of common stock that are reasonably similar in risk.
3 When using a group of companies, there is an opportunity for data distortions in
4 one direction to be offset by distortions in the other direction, which should improve
5 the accuracy of the cost estimate versus using just one company. Moreover, some
6 electric power companies have substantially diversified into other businesses with
7 different risk characteristics than those of electric power companies. Using a group
8 of comparable companies, who are primarily electric power companies, will better
9 insure that the cost of common stock estimate reflects the utility business and not
10 the non-utility business for the merged company.

11 I recommend, therefore, that the Commission rely on utility companies of
12 comparable risk to measure the cost of common stock for the merged company.
13 Nonetheless, the merged company's common equity cost estimate for the tests
14 used will also be provided for the Commission's consideration.

15 **Q. WHAT CRITERIA DID YOU USE TO DETERMINE COMPANIES COMPARABLE**
16 **TO THE MERGED COMPANY?**

17 A. I first reviewed the risks faced by investors, and then determined appropriate risk
18 criteria for the determination of comparable electric companies.

19 **Q. WHAT ARE THE RISKS FACED BY AN INVESTOR IN COMMON STOCKS?**

20 A. Risks of common stocks faced by investors are:

21 Common to Most Common Stocks

1. Inflation risk -- cash flows will have more or less purchasing power depending on the rate of inflation.
2. Interest rate risk -- increases in interest rates and the cost of capital will reduce the value of an investment.
3. Market risk -- a decline in the stock market will reduce the value of an investment.

Risks Which are Materially Different from Company to Company

4. Business risk -- business risk refers to all risks that affect the relationship between revenues and costs of the merged company excluding the effect of using debt to finance the assets of the merged company. An increase in business risk will depress the value of the security.
5. Financial risk -- financial risk reflects using debt to finance assets and its impact on the balance between revenues and costs. Interest, unlike dividends, must be paid even during adverse circumstances. As a result, when revenues decrease relative to costs, a leveraged company will incur a greater reduction in income than a non-leveraged company. Further, debt can expose companies to the risk of bankruptcy. An increase in leverage, or debt, and a resulting lower common equity ratio will increase financial risk, and depress the price of the security.
6. Marketability Risk -- this risk reflects the ability to sell the security at the last closing price, and correlates with the size of the merged company. Because trading costs are a small portion of the selling price of stocks listed on major

1 stock exchanges, marketability risk does not significantly affect the cost of
2 common stock for the merged company.

3 The business and financial risks can vary materially from company to company.

4 Therefore, comparable risk companies should have about the same business and
5 financial risks.

6 **Q. WHAT SPECIFIC CRITERIA DID YOU EMPLOY TO FIND COMPANIES WITH**
7 **RISK COMPARABLE TO THE MERGED COMPANY?**

8 A. I used a number of broad and narrow measures of risk which follow:

- 9 1. A regulated utility company that is primarily an electric company (included in
10 Value Line's Electric Industry group),
- 11 2. A Value Line safety rank of 1 or 2, or the risk level recommended by Value Line
12 for conservative investors,
- 13 3. A Value Line beta within .10 of the merged company. Merged company values
14 in my testimony are based on weighting WR at 65 percent and KCPL at 35
15 percent, or according to their relative proportions in the merged company's 1996
16 capitalization,
- 17 4. S&P's bond rating within three notches (one rating) from the merged company
18 rating of A- by S&P (based on weighted values described immediately above in
19 number 3), and
- 20 5. Companies with average or better competitive positions.

21 As more selection criteria were considered, the number of comparable
22 companies declined. In order to have a sufficient number of comparable

1 companies, while still considering risk measures important to investors, it became
2 necessary to 1) evaluate additional risk measures; and 2) relax concerns about
3 using companies not involved in mergers (since many companies are involved in
4 mergers and/or are expected to be by investors), and companies with reduced
5 dividends (since dividend policy changes by management have become much more
6 frequent, and sometimes do not reflect financial weakness).

7 Additional risk measures include: the debt to capital ratio, or financial risk,
8 regulatory risk, nuclear risk, and diversification risk. These criteria, listed in no
9 particular order, are important to investors based on my experience in assessing
10 the relative risk of utility companies.

11 Electric power companies comparable to the merged company along with
12 supporting data are shown on Schedule CAB-3.

13 **Q. WHAT COMPANIES ARE COMPARABLE TO THE MERGED COMPANY?**

14 A. Companies comparable to the merged company are Delmarva Power (DEW),
15 Dominion Resources (D), Florida Progress (FPC), FPL Group (FPL) PP&L
16 Resources (PPL), SCANA Corp. (SCG), Southern Company (SO), and Union
17 Electric (UEP).

18 **Q. PLEASE REVIEW THE RISK INDICATORS USED TO DETERMINE THAT THE**
19 **COMPARABLE COMPANIES ARE SIMILAR TO THE MERGED COMPANY.**

20 A. Each of the comparable companies are primarily regulated electric companies. All
21 have a Value Line Safety Rank of 1 or 2 (Value Line recommends conservative
22 investors invest in companies with safety ranks of 1 or 2; Value Line's safety rank

1 is a measure of total investor risk, and extends from 1 to 5, where 1 is lowest and
2 5 highest in risk.), a beta within 0.10 of the merged company's beta, an average to
3 above average competitive position indicated by their average industrial rates to
4 customers, and a Standard & Poor's bond rating within one rating (3 notches to a
5 rating) either side of the merged company. Each of the comparable companies is
6 involved in nuclear generation, as is the merged company. Regulation is average
7 to above average for the comparable companies compared to average for the
8 merged company, and debt leverage is moderately higher for the merged company.

9 **Q. WHAT IS YOUR OVERALL CONCLUSION OF THE RELATIVE RISK BETWEEN**
10 **THE MERGED COMPANY AND THE COMPARABLE COMPANIES?**

11 A. While these companies are the most comparable to the merged company based on
12 the measures used, it is my judgment that the risk of the merged company is
13 moderately higher than that for the comparable group because of the merged
14 company's lower bond rating and regulatory ranking, and higher financial risk as
15 indicated by its higher debt to capital ratio. Mitigating these higher risk indicators
16 is a moderately lower beta that is applicable for investors with properly diversified
17 portfolios. Overall, I believe that the merged company's risk is moderately higher
18 than for the comparable companies.

19
20 **TESTS TO DETERMINE THE MERGED COMPANY'S**
21 **COST OF COMMON STOCK**

1 Q. WHAT MODELS DID YOU EMPLOY TO MEASURE THE MERGED COMPANY'S
2 COST OF COMMON STOCK CAPITAL?

3 A. I employed four cost of common stock models to determine the merged company's
4 cost of common stock equity, which are the Equity Risk Premium model, the CAPM,
5 the Comparable Earnings model, and the End-Result DCF model. A financial
6 integrity test was also done to determine the reasonableness of the cost estimate
7 of the merged company's common stock.

8 EQUITY RISK PREMIUM MODEL

9 Q. WHAT IS YOUR FIRST TEST FOR DETERMINING THE MERGED COMPANY'S
10 COST OF COMMON STOCK?

11 A. The first test is the equity-risk-premium test. The Permian Basin decision requires
12 that investors have an opportunity to be compensated for the risks assumed. In the
13 equity-risk-premium model, the required return is the sum of the lowest risk, long-
14 term debt rate of return, or the return on long-term U.S. government bonds, and the
15 equity risk premium. The equity risk premium represents the difference in risk
16 between the long-term U.S. government bond and the comparable company's
17 common stock. The formula is:

18
$$K = \text{LTUSG YtoM} + \text{ERP, or}$$

19 Required Return = Lowest Risk, Long-Term Rate (long-term U.S. Government
20 Bond Yield to Maturity, LTUSG YtoM) plus the Equity-Risk-Premium (ERP)
21

1 The ERP test recognizes that common stocks have higher risk than U.S.
2 government securities, which are used as a measure of lowest cost, long-term
3 capital because of their virtual absence of risk of nonpayment of principal and
4 interest.

5 Graphically, securities of varying risk are plotted on the horizontal axis in the
6 chart in Schedule CAB-4, and the required return or cost of capital on the vertical
7 axis. The required return increases as risk increases. In the example, ascending
8 risk moves from U.S. treasury bills to U.S. government bonds that have a risk
9 premium (horizon premium) relative to treasury bills (change in inflation and interest
10 rates will cause a larger corresponding change in the price of the treasury bond
11 than in the treasury bill). Corporate bonds have a higher default risk than
12 government bonds and, therefore, a higher return is required. Finally, common
13 stock has the highest risk for which investors require the highest return.

14 **Q. WHY HAVE YOU USED A LONG-TERM U.S. GOVERNMENT BOND YIELD**
15 **INSTEAD OF THE TREASURY BILL YIELD IN YOUR COMPUTATIONS TO**
16 **MEASURE THE MERGED COMPANY'S COST OF COMMON STOCK CAPITAL?**

17 **A.** If interest rates change, there will be a greater change in the price of the long-term
18 treasury bond than for the short-term treasury bill. This raises the risk of long-term
19 investments. Since common stocks have a perpetual term, it is necessary to use
20 the long-term treasury bond to reflect this risk. Short-term interest rates do not
21 reflect long-term inflation expectations as do long-term rates, and short-term rates
22 are also more volatile and sometimes reflect Federal Reserve policy instead of

1 market forces. Besides, there is a higher correlation between the yields of S&P
2 electric common stocks and long-term, as opposed to short-term, U.S. government
3 bonds. This shows that the stocks are primarily valued by investors on the basis
4 of long-term bond yields.

5 This can be seen in the chart shown as Schedule CAB-5 that shows the much
6 closer relationship between the yield for S&P's Electric Power Company Index and
7 the yield on 30 year treasury bonds than on 3 month treasury bills.

8 **Q. HOW DID YOU DETERMINE THE EQUITY RISK PREMIUM FOR THE MERGED**
9 **COMPANY'S COMPARABLE COMPANIES?**

10 A. I used a method based on actual market results. I discounted another method that
11 infers the equity risk premium based on a DCF analysis of investor expected returns
12 because it is flawed by the downward bias problem when using the standard DCF
13 model, which will be shown in the DCF Model section of my testimony.

14 **Q. PLEASE EXPLAIN THE EQUITY RISK PREMIUM (ERP) TEST YOU USED.**

15 A. This test is based on actual, annual returns realized by investors in the common
16 stocks of the merged company's comparable companies and long-term U.S.
17 government bonds for the last economic cycle, or from 1983-91. The change in
18 price, or the price return, was added to the yield, or the yield return. The sum of the
19 price and yield returns represents the total return realized by investors in the
20 merged company's comparable common stocks.

21 The stock returns were then compared with returns for long-term U.S.
22 government bonds as calculated by Ibbotson Associates. The difference between

1 the stock and bond returns shows the higher return required by investors for
2 investing in the merged company's common stock than in the lower risk, long-term
3 U.S. government bond.

4 **Q. HOW DID YOU SELECT THE TIME PERIOD TO MEASURE THE EQUITY RISK**
5 **PREMIUM?**

6 A. I found that the equity risk premium for S&P's Electric Power Companies, while very
7 volatile from year to year, was very stable over the last two economic cycles. The
8 equity risk premium is very volatile on a year to year basis because 1) it is hard to
9 synchronize the huge stock and bond markets, and more importantly, 2) common
10 stock investors when confident of making money in the stock market shun bonds
11 or defensive investments, but favor them when the outlook for the stock market is
12 cloudy or questionable. The offensive and defensive nature of investors tends to
13 even out over an economic cycle. Therefore, the equity risk premium tends to be
14 more stable over economic cycles than on a year to year basis. The latest
15 economic cycle spanned the years 1983-1991. Supporting data for the stability of
16 the equity risk premium for 32 Electric Power Companies over the last two
17 economic cycles is shown on Schedule CAB-6.

18 **Q. IS 1983-91 TOO SHORT TO DETERMINE THE MERGED COMPANY'S EQUITY**
19 **RISK PREMIUM?**

20 A. I generally prefer to use a long-period of time such as used by Ibbotson Associates
21 to determine the equity risk premium for the market in order to avoid the risk that
22 shorter time periods may ignore event types that recur again and again over time

1 that investors would reasonably consider. However, PaineWebber and other
2 sources such as Compustat and CompuServe do not have data accessed by
3 computer going back that far.

4 Since the equity risk premium for the 32 Electric Power Companies has been
5 stable for the last two economic cycles, the equity risk premiums used for the
6 merged company can be thought of as spanning the years 1976-1991.

7 **Q. WHAT WAS THE EQUITY RISK PREMIUM FOR THE MERGED COMPANY'S**
8 **COMPARABLE COMPANIES FOR 1983-91, OR OVER THE LAST ECONOMIC**
9 **CYCLE?**

10 A. The equity risk premium for the merged company's comparable companies
11 averaged 6.1 percentage. Supporting data is shown on Schedule CAB-7.

12 **Q. WHAT YIELD DID YOU USE FOR LONG-TERM U.S. GOVERNMENT BONDS?**

13 A. I used the average of daily closing yields for the month ending April 25, 1997. The
14 average yield for long-term U.S. government bonds was 7.10 percent, or 7.1
15 percent. Supporting data is shown on Schedule CAB-8.

16 **Q. WHAT DID YOUR MARKET EQUITY RISK PREMIUM TEST SHOW THE**
17 **MERGED COMPANY'S, COMPARABLE GROUP EQUITY RISK PREMIUM**
18 **MODEL COST TO BE?**

19 A. The average equity risk premium for the merged company's comparable companies
20 was 6.1 percentage points. Adding the equity risk premium of 6.1 percent to the
21 yield of 7.1 percent for long-term U.S. Treasury Bonds indicates a cost of common
22 stock of 13.2 percent, and 13.5 percent after flotation costs of 0.3 percent. The

1 flotation cost adjustment is supported later in my testimony. Supporting data is
2 shown on Schedule CAB-9.

3 EQUITY RISK PREMIUM (ERP) MODEL EVALUATION AND CONCLUSIONS

4 **Q. WOULD YOU EVALUATE THE RESULTS OF THE EQUITY RISK PREMIUM**
5 **MODEL?**

6 A. Yes. A possible drawback of the equity risk premium model used in my testimony
7 is that an expectational, equity risk premium, and cost of the merged company's
8 common stock, was not determined. Because of the demonstrated bias of the
9 standard DCF model, I do not believe an expectational, equity risk premium model
10 using the standard DCF model required return would produce a realistic estimate
11 of the investor required return.

12 Moreover, an expectational interest rate was used, which accounts for about
13 one-half of the equity risk premium cost estimate. Further, risk between electric
14 power companies and long-term U.S. government bonds has likely increased in
15 recent years because of rising business risk for electric companies due to possible
16 deregulation and restructuring of the industry that has not been reflected in the
17 historical equity risk premium data. Therefore, my equity risk premium cost
18 estimate may understate the merged company's cost of common stock.

19 **Q. WHAT IS YOUR OVERALL JUDGMENT ABOUT THE EQUITY RISK PREMIUM**
20 **COST OF THE MERGED COMPANY'S COMMON STOCK?**

1 A. It is my judgment that the merged company's equity risk premium of 6.1 percent is
2 a valid measure. It is comparable to the average equity risk premium for 32 electric
3 power companies shown on Schedule CAB-6, and is lower, as expected, than the
4 long-term equity risk premium for common stocks of 7.3 percent. Moreover, four
5 CAPM equity risk premiums developed in the next section of my testimony average
6 5.7 percent.

7 It is my judgment, that the merged company's equity risk premium is 6.1
8 percentage points, and that its equity risk premium cost of common stock is 13.2
9 percent without, and 13.5 percent with flotation costs.

10 **Q. DO YOU HAVE ANY COMMENTS ON THE RELATIVE VALUE OF COST**
11 **ESTIMATES FROM THE STANDARD DCF AND EQUITY RISK PREMIUM**
12 **MODELS IN DETERMINING THE MERGED COMPANY'S COST OF COMMON**
13 **STOCK?**

14 A. Yes. The equity risk premium cost estimate is superior to the standard DCF model
15 estimate according to a market test that I performed.

16 **Q. PLEASE EXPLAIN WHY.**

17 A. A market test of both models shows that the ERP model is superior to the standard
18 DCF model in replicating actual, market returns. The test shown in Schedule
19 CAB-19 in the DCF section of my testimony, used the current yield on a 12 month
20 forward dividend and the projected growth rate of dividends for the DCF model. For
21 the equity risk premium model, the previous economic cycle's equity risk premium
22 (necessary to use risk premium of the previous cycle to avoid the identity problem)

1 was added to interest rates to determine the ERP model return. The equity risk
2 premium model return, as shown in the exhibit, more closely paralleled market
3 results than the standard DCF model.

4 For 1983-94 (began with 1983 to correspond with the beginning of the new
5 economic cycle and used the equity risk premium for the previous cycle to avoid the
6 identity problem), the DCF model understated market returns by an annual average
7 of 3.4 percentage points (Column 5) compared to 0.6 percentage points (Column
8 6) for the ERP model.

9 Because the ERP model has been much more accurate by a market test than
10 the DCF model, I believe the ERP test should be given more weight in determining
11 the merged company's cost of common stock than the standard DCF test.

12
13 **CAPITAL ASSET PRICING MODEL (CAPM)**

14 **Q. DO YOU HAVE ANOTHER RISK PREMIUM TEST?**

15 A. Yes. The Capital Asset Pricing Model represents a portfolio approach to
16 determining the cost of common stock. Risk is divided into diversifiable and non-
17 diversifiable risk. Diversifiable risk can be eliminated through proper diversification,
18 or portfolio construction. Events that are good for one company can be bad for
19 another.

20 Therefore, risks specific to a given company can be offset (through proper
21 portfolio construction and use of a sufficient number of companies) by another
22 company with opposite risks, and diversifiable risk is eliminated.

1 The risk that cannot be eliminated through diversification is market risk, which
2 is measured by beta. Beta measures the amount of change in the return for a given
3 company versus the market as a whole.

4 CAPM theory, therefore, indicates that risk is reflected by the merged company's
5 beta. A common stock with a beta of 1.0 indicates that the stock will rise and fall
6 with the market, while one with a beta of 0.75 will rise and fall by 75 percent of the
7 change in the market.

8 The chart shown as Schedule CAB-10, (which is adapted from a chart in Basic
9 Financial Management, Petty, Scott, Keown, and Martin, Sixth Edition, 1993,
10 Prentice Hall) diagrams these relationships. Total risk, expressed as the standard
11 deviation, and the required return, is shown on the vertical axis of the chart. The
12 number of stocks held in the portfolio is shown on the horizontal axis.

13 As the number of stocks in the portfolio increases, diversifiable risk decreases,
14 and with a sufficient number of stocks (a minimum of 15), diversifiable risk is
15 eliminated. When eliminated, investors are left with only non-diversifiable risk, or
16 market risk, which is measured by beta.

17 **Q. WHAT IS THE MATHEMATICAL FORMULA FOR THE CAPM?**

18 **A.** The formula for the model is as follows:

$$K = R_b + B(R_m - R_b)$$

20 Where: K is the cost of common stock equity; R_b is the yield to maturity for long-
21 term U.S. Government bonds, B is beta, and R_m is the expected market return.

1 **Q. DID YOU PERFORM SEVERAL CAPM TESTS OF THE MERGED COMPANY'S**
2 **COST OF COMMON STOCK?**

3 A. Yes. I performed two historical tests using the equity risk premiums calculated by
4 Ibbotson Associates (1997 Yearbook, page 118), and two expectational equity risk
5 premium tests using the expected market returns for the Value Line Universe of
6 Common Stocks and the S&P 500 Composite Index of Common Stocks.

7 **Q. WHAT IS THE BETA VALUE YOU USED FOR THE MERGED COMPANY'S**
8 **COMPARABLE COMPANIES?**

9 A. I used the Value Line beta adjusted for the inapplicability of beta as a risk measure
10 for most individual investors.

11 **Q. PLEASE EXPLAIN WHY YOU BELIEVE AN ADJUSTED BETA IS NECESSARY**
12 **FOR DETERMINING THE MERGED COMPANY'S COST OF COMMON STOCK**
13 **AND HOW YOU MADE THE ADJUSTMENT.**

14 A. For CAPM to work, the underlying assumptions of the CAPM model must be
15 fulfilled. In order for the model to properly determine the cost of the merged
16 company's common stock, investors through diversification must eliminate the
17 merged company's company specific risk and bear only market risk, which is
18 indicated by a stock's beta.

19 According to *The Stock Market: Theories and Evidence*, Second Edition, 1985,
20 by Lorie, Dodd, and Kimpton:

21 Fisher and Lorie found that the market as a whole generally
22 had 50-75 percent as much dispersion as one-stock portfolios.
23 Conversely, one stock portfolios have roughly one and one-

1 third to two times as much dispersion as the market. Another
2 interesting fact is how rapidly the possibility of reducing
3 dispersion by diversifying is exhausted. That is, usually, about
4 90 percent of all possible reductions in relative dispersion are
5 achieved by the time the portfolio contains only 16 stocks.

6 They also show that it takes about 32 stocks to eliminate 95 percent of all
7 relative dispersion. Value Line indicates that 15 stocks in 8 industries are
8 necessary to use beta.

9 **Q. DO MOST INDIVIDUAL INVESTORS OWN AT LEAST 15 STOCKS IN 8**
10 **INDUSTRIES IN THEIR INVESTMENT PORTFOLIOS?**

11 A. No. A 1990 survey by the New York Stock Exchange entitled, "Shareownership
12 1990," showed that the average individual investor owned only three stocks.
13 Supporting data from the survey is shown in Schedule CAB-11. Ownership of a
14 mutual fund counted as a stock in the survey, and 60 percent of the individuals
15 owned mutual funds. Therefore, individual investors who do not own mutual funds
16 are unable to eliminate the company specific risk, and risk in electric utility common
17 stocks for them is higher than beta indicates. For example, about two-thirds of the
18 shares of the merged company's comparable companies are owned by individual
19 investors, and therefore, about one-third (the 40 percent that do not own mutual
20 funds) of the individual investors are under-diversified.

21 **Q. CAN YOU PROVIDE EMPIRICAL EVIDENCE USING STANDARD & POOR'S**
22 **ELECTRIC COMMON STOCKS THAT SHOWS CAPM UNDERSTATES**
23 **EXPECTED RETURNS BY INVESTORS?**

1 A. Yes. An examination of total returns realized by investors in electric common
2 stocks indicated by S&P's Electric Common Stock Index and the S&P 500
3 Composite Index of Common Stocks shows that investor returns for electric
4 common stocks and the S&P 500 common stocks have been comparable for the
5 last 20, 10, and 5 years through 1993. Supporting data appears on Schedule
6 CAB-12.

7 The comparison was not extended through 1996 because of the dramatic
8 increase in investor concerns about deregulation of the electric power industry,
9 which caused electric common stock returns to be reduced from what they
10 otherwise would have been due to the increase in business risk.

11 If risk was higher in the S&P 500, investor returns for electric common stocks
12 would have been lower than for the S&P 500, and they were not. According to
13 CAPM, the difference in returns should be equal to the difference in risk as
14 indicated by beta. Assuming an equity risk premium of 7.3 percentage points for
15 the market and a beta of 0.65 for electric common stocks, the return for electric
16 companies should have been lower than the S&P 500 by the difference in the equity
17 risk premiums of 7.3 percentage points for the market and 4.7 for electric
18 companies (7.3 times 0.65 equals 4.7).

19 On average, therefore, realized annual returns by investors in electric utility
20 common stocks should have been about 2 ½ percentage points lower on average
21 than for the S&P 500, and they were not.

1 It is clear, therefore, that beta understates risk to electric utility common stock
2 investors. Therefore, one should recognize that CAPM likely understates the
3 required return by investors for the merged company.

4 **Q. WHY DO YOU BELIEVE BETA HAS NOT WORKED FOR ELECTRIC COMMON**
5 **STOCKS?**

6 A. A major reason in my judgment is that individual investors are not properly
7 diversified. If the investor lacks the cash for building a diversified portfolio to satisfy
8 the CAPM assumptions, the company specific risk will not be eliminated, and risk
9 to the investor will be higher than indicated by CAPM. Rational investors expect to
10 be compensated for risk, and because of the higher risk for investors than assumed
11 by the CAPM model, the cost of common stock will be understated by CAPM.

12 Since individual investors on average own only 3 common stocks, and at least
13 15 are needed to eliminate the bulk of diversifiable risk, the beta provided by Value
14 Line without adjustment is generally not appropriate for individual investors in
15 electric utility common stocks, although it is appropriate for institutional investors.
16 Institutional investors, except for specialized industry mutual funds, have sufficiently
17 diversified stock portfolios.

18 My use of CAPM properly recognizes the lack of sufficient diversification by
19 individual investors, and adjusts the beta to reflect higher risk than assumed by the
20 unadjusted beta for individual investors.

21 **Q. IS THERE CORROBORATING SUPPORT FOR YOUR REASON WHY BETA**
22 **DOES NOT WORK FOR UTILITY COMMON STOCKS?**

1 A. Yes. Levy and Sarnat in *Capital Investment and Financial Decisions*, Third Edition,
2 1985, Prentice Hall, page 345, note in summary that:

3 Thus, the empirical findings do not support CAPM in its pure
4 form. Indeed, if one recalls that the typical investor holds a
5 small non-diversified portfolio consisting of less than four
6 stocks on average, it is obvious that B [beta] which measures
7 the covariability of the return of a given stock with a market
8 portfolio (which no one holds) can only play a very limited role
9 in measuring a security's risk.

10 **Q. IS THERE FURTHER SUPPORT FOR THE USE OF AN ADJUSTED BETA?**

11 A. Yes. Messrs. Petty, Keown, Scott, and Martin in *Basic Financial Management*, Sixth
12 Edition, 1993, Prentice Hall, page 116, note in reference to Fama and French's
13 "The Cross-Section of Expected Stock Returns" that:

14 Advocates of CAPM including Fisher Black, of Goldman
15 Sachs, an investment bank, and William Sharpe of
16 Stanford University, who won the Nobel prize for
17 economics in 1990 - reckon the results of the new study
18 can be explained without discarding beta. Investors may
19 irrationally favor big firms. Or they may lack the cash to
20 buy enough shares to spread risk completely, so that risk
21 and return are not perfectly matched in the market.

22 The adjusted beta that I use assumes the market is efficient, and that most
23 individual investors, as demonstrated by the New York Stock Exchange survey, lack
24 sufficient cash to develop efficient portfolios for the CAPM model to properly work.

25 Moreover, Copeland and Weston in *Financial Theory and Corporate Policy*,
26 Third Edition, Addison-Wesley Publishing, pages 214 and 215 in discussing
27 empirical tests of the CAPM note the following:

28 With few exceptions, the empirical studies agree on the
29 following conclusions: a) the intercept term, V_0 , is

1 significantly different from zero, and the slope, V_1 , is less
2 than the difference between the return on the market
3 portfolio minus the risk-free rate. The implication is that
4 low beta securities earn more than the CAPM would predict
5 and high beta securities earn less.

6 **Q. HAS ANY PUBLIC UTILITY COMMISSION THAT YOU ARE AWARE OF USED AN**
7 **ADJUSTED BETA IN DETERMINING THE COST OF COMMON STOCK FOR**
8 **UTILITY COMPANIES?**

9 A. Yes. The New York PSC staff has used an average of the utility and market betas
10 to determine the cost of common stock in apparent recognition of the likely
11 understatement of the CAPM cost of common stock which I understand was
12 accepted by the Commission.

13 **Q. WHAT IS THE ADJUSTED, OR EFFECTIVE, BETA FOR THE MERGED**
14 **COMPANY'S COMPARABLE COMPANIES?**

15 A. The average Value Line beta for the merged company's comparable companies is
16 0.73, and 65 percent of the shares are held by individual investors, and the
17 remaining 35 percent by institutional investors. Therefore, the adjusted beta is 0.80
18 consisting of under-diversified individual investors at 26 percent (65.2 percent times
19 40 percent who do not own mutual funds) with a beta of 1.0, and the remaining 73.9
20 percent with a beta of 0.73. Supporting data for the betas used and individual and
21 institutional stock ownership is shown on Schedule CAB-13.

22 **Q. WHY DO YOU USE A BETA OF 1.0 FOR INDIVIDUAL INVESTORS?**

23 A. As shown on Schedule CAB-12, returns to investors in electric utility common stocks
24 have been equal to or higher than the S&P 500 for the 5, 10, and 20 years ending

1 in 1993. Since investors require comparable returns for comparable risk, the beta
2 for electric utilities should be about 1.00. From another perspective, the standard
3 deviation of returns for electric common stocks and the stock market have been
4 comparable, which also supports the use of a beta of about 1.0 for under-diversified
5 investors.

6 **Q. WHAT U.S. GOVERNMENT BOND YIELD DID YOU USE IN YOUR CAPM TEST?**

7 A. I used the long-term U.S. government bond yield because it (1) best corresponds to
8 the perpetual term of common stocks, and (2) has a much higher correlation with the
9 yields on electric utility common stocks, which shows it is the yield that investors
10 primarily use. The yield as shown Schedule CAB-8 was 7.1 percent, and the
11 historical yield comparisons for electric companies versus 3 month treasury bills and
12 30 year treasury bonds is shown on Schedule CAB-5.

13 **Q. WHAT RETURN DID YOU USE FOR THE MARKET, OR THE VALUE LINE**
14 **COMPOSITE AND THE S&P 500 COMPOSITE?**

15 A. For the growth component of the Value Line Composite total return, I used the
16 average of the earnings and dividend growth rates projected by Value Line for its
17 approximate 1,600 company universe of stocks, and the current yield based on the
18 expected dividend for the first holding year determined by Value Line. The date
19 shown on the Value Line program used is April 1, 1997, and the yield uses a spot
20 price. I do not believe one should use a spot price when working with small sample
21 sizes, but because approximately 1,600 companies are covered by the Value Line
22 universe, distortions will be evened out over so many companies. The projected

1 growth rate for earnings and dividends averages 11.2 percent, and the current yield
2 on a forward dividend is 1.8 percent, according to Value Line's, April 1997,
3 Value/Screen III statistical report. Therefore, the indicated total return for the Value
4 Line Composite is 13.0 percent.

5 For the S&P 500, I used I/B/E/S's S&P 500 projected growth of 13.0 percent,
6 and a current yield on a 12 month forward dividend of 2.0 percent. The indicated
7 S&P 500 total return, or investor required return, therefore, is 15.0 percent.
8 Supporting data for the growth rates and investor required returns are shown on
9 Schedule CAB-14. The average price for the S&P 500 for the month ending April 25,
10 1997 is shown on Schedule CAB-15.

11 **Q. PLEASE PROCEED BY DESCRIBING EACH OF THE FOUR CAPM TESTS YOU**
12 **USED TO DETERMINE THE MERGED COMPANY'S COST OF COMMON STOCK,**
13 **AND THE RESULTS OF EACH TEST.**

14 A. The first CAPM test is based on the historical, equity risk premium, or the difference
15 between the realized total return for the common stock market and long-term
16 treasury bonds. The average equity risk premium based on data from Ibbotson
17 Associates for the years 1926-96 was 7.3 percentage points. Adjusting the 7.3
18 percentage points for the lower risk in the merged company's comparable
19 companies than the market according to the adjusted beta of 0.80, the equity risk
20 premium for the merged company is 5.8 percentage points. The risk premium of 5.8
21 percentage points plus the yield on long-term treasury bonds of 7.1 percent shows
22 a cost of common stock for the merged company of 12.9 percent.

1 **Q. WHAT JUSTIFICATION IS THERE FOR USING SUCH A LONG TIME PERIOD TO**
2 **MEASURE THE EQUITY RISK PREMIUM?**

3 A. As noted by Ibbotson Associates (*1996 Yearbook*, page 153),

4 Some analysts calculate the ... equity risk premium over a
5 shorter, more recent time period on the ground that more recent
6 events are more likely to be repeated in the near future;
7 furthermore, the 1920's, 1930's, and 1940's contain too many
8 unusual events. This view is suspect because all periods
9 contain unusual events. Some of the most 'unusual events' of
10 this century took place quite recently. These events include the
11 inflation of the late 1970's and early 1980's, the October 1987
12 stock market crash, the collapse of the high yield bond market,
13 the major contraction and consolidation of the thrift industry,
14 and the collapse of the Soviet Union -- all of which happened
15 in the past ten years. Without an appreciation of the 1920s and
16 1930s no one would believe that such events could happen.
17 More generally, the 71 year period starting with 1926 is
18 representative of what can happen: It includes high and low
19 returns, volatile and quiet markets, war and peace, inflation and
20 deflation, and prosperity and depression. Restricting attention
21 to a shorter historical period underestimates the amount of
22 change that could occur in a long future period. Finally,
23 because historical event-types (not specific events) tend to
24 repeat themselves, long-run capital market return studies can
25 reveal a great deal about the future. Investors probably expect
26 'unusual' events to occur from time to time and their return
27 expectations reflect this.

28 **Q. PLEASE DESCRIBE YOUR SECOND CAPM TEST AND ITS RESULTS.**

29 A. The second test uses the income return for bonds instead of the total return. The
30 justification for this approach is also noted by Ibbotson Associates (*1996 Yearbook*,
31 page 151). They note:

32 When calculating the equity risk premium some analysts subtract
33 a long-term Treasury bond's total return, rather than its income
34 return, from the total return on the overall stock market. The

1 income return is the better measure of return to be subtracted
2 from the stock market total return for two reasons:

- 3 1. It is the completely riskless portion of the issues' returns (Treasury
4 securities are subject to price risks).
- 5 2. Bond yields have risen historically, causing capital losses in fixed-
6 income securities (including U.S. Treasury issues). These capital
7 losses caused bonds' total returns to be lower than the returns which
8 investors expected.
9

10 The equity risk premium using the income equity risk premium is 7.5 percentage
11 points. When multiplied by the adjusted beta for the merged company's
12 comparable companies of 0.80, the merged company's equity risk premium is 6.0
13 percentage points. The equity risk premium of 6.0 percentage points plus the 7.1
14 percent yield on long-term U.S. government bonds shows a cost of common stock
15 of 13.1 percent.

16 **Q. DESCRIBE TESTS THREE AND FOUR, OR THE TWO EXPECTATIONAL CAPM**
17 **TESTS THAT YOU USED, AND THE RESULTS?**

18 A. The third CAPM test used the expected Value Line return for their universe of
19 stocks, which as developed earlier was 13.0 percent. After deducting the expected
20 return for long-term U.S. government bonds of 7.1 percent, the indicated equity risk
21 premium for the market is 5.9 percentage points. Multiplying the market equity risk
22 premium of 5.9 percentage points by the adjusted beta of the merged company's
23 comparable group of 0.80, the equity risk premium indicated for the merged
24 company is 4.7 percentage points. Adding the equity risk premium of 4.7

1 percentage points to the expected return on long treasuries of 7.1 percent, indicates
2 a cost of common stock for the merged company of 11.8 percent.

3 The fourth CAPM test uses the expected total return for the S&P 500 of 15.0
4 percent developed earlier in my testimony. After deducting the expected return on
5 long-term treasuries, the indicated market equity risk premium is 7.9 percentage
6 points, and after reflecting the adjusted beta of 0.80 for the merged company's
7 comparables, the equity risk premium is 6.3 percentage points. The sum of the
8 equity risk premium of 6.3 percentage points and the yield on long treasuries of 7.1
9 percent shows a cost of common stock for the merged company of 13.4 percent.

10 These four cost estimates average 12.8 percent before and 13.1 percent after
11 flotation costs. Supporting data for the four CAPM tests appear in Schedule
12 CAB-16.

13 CAPM MODEL EVALUATION AND CONCLUSIONS

14 **Q. PLEASE EVALUATE THE RESULTS OF THE CAPM TEST.**

15 A. Like all other tests for determining the cost of common stock capital, CAPM has
16 infirmities that must be recognized. A key problem is that it takes 15 or more
17 stocks for beta in the CAPM model to work. Value Line notes (*User Manual for*
18 *Value/Screen III*, page 5.1) that its beta is:

19 A Measure of the sensitivity of the stock's price to overall
20 fluctuations in the New York Stock Exchange (NYSE)
21 Composite Index. A Beta of 1.50 indicates that a stock tends
22 to rise (or fall) 50 percent more than the NYSE Composite
23 Index. Use Beta to measure the stock market risk inherent in

1 any diversified portfolio of, say, 15 or more stocks. Otherwise,
2 use the Safety Rank, which measures total risk inherent in an
3 equity, including that portion attributable to market fluctuations.
4 Beta is derived from a least-squares regression analysis
5 between weekly percent changes in the price of a stock and
6 weekly percent changes in the NYSE Composite Index over a
7 period of five years.

8 Unfortunately, a survey of investors by The New York Stock Exchange
9 shows that individual investors, who own the bulk of electric utility common
10 stocks, own on average only three common stocks. Therefore, risk for many
11 individual investors is much higher than indicated by beta because they cannot
12 reduce diversifiable risk to the extent assumed by the CAPM model. Therefore,
13 the Value Line beta needs to be adjusted to reflect real, market conditions,
14 which I have done for purposes of my testimony.

15 Once this infirmity has been eliminated, the CAPM cost estimate of common
16 stock for the merged company is based on fulfillment of the underlying
17 assumptions of CAPM, and therefore, should be a better estimate than using a
18 beta that is unadjusted for the higher risk incurred by many individual investors.

19 It should be noted that the adjusted beta used in my testimony is probably
20 conservative for two reasons. First, investors owning a mutual fund among the
21 three stocks could have one-third of their investment in a mutual fund as one
22 stock, and the remaining two-thirds in two common stocks. The adjustment
23 used in my testimony assumes that such investors are sufficiently diversified,
24 although it is apparent they are not.

1 Second, the returns for the Standard & Poor's Electric Power Companies and
2 the S&P 500 have been comparable for the last 5, 10, and 20 years ending in
3 1993. Investors demand comparable returns for comparable risk, and therefore,
4 the real beta for electric power companies based on market experience is closer
5 to 1.0.

6 Overall, it is my judgment that the CAPM cost of common stock for the
7 merged company based on the average of the four CAPM tests is 12.8 percent
8 before, and 13.1 percent with flotation costs.

9 **Q. SHOULD UNDER-DIVERSIFIED INDIVIDUAL INVESTORS BE**
10 **COMPENSATED FOR THE REAL RISK THAT THEY INCUR?**

11 A. Yes. Rational investors must be compensated for the risk incurred, or they will
12 invest their capital elsewhere. Furthermore, because historical returns for
13 electric utility companies for the last five, ten, and twenty years ending in 1993
14 were comparable to the market, or the S&P 500, it is evident that investors have
15 succeeded in being rewarded for risk beyond that indicated by the unadjusted
16 beta.

17 COMPARABLE EARNINGS TEST

18 **Q. DID YOU PERFORM A COMPARABLE EARNINGS TEST TO DETERMINE**
19 **THE MERGED COMPANY'S COST OF COMMON STOCK?**

20 A. Yes.

21 **Q. PLEASE EXPLAIN THE RELEVANCE OF THIS TEST.**

1 A. Earnings of regulated utility companies depend on the allowed return on
2 common stock equity, and the ability to earn it. Investors, in fact, often
3 determine normalized earnings of utility companies by multiplying book value
4 by an expected ROE to be earned by the utility. Further, such earnings can be
5 compared to the dividend to determine the dividend payout ratio and retention
6 rate. Then, the expected return on common stock equity and retention rate can
7 be used to determine the expected rate of growth for earnings and dividends.
8 Therefore, there is a direct linkage between both 1) the investor expected level
9 of earnings, and the growth rate of earnings and dividends, and 2) the expected
10 return on common stock equity.

11 In an efficient market, the price of the utility common stock will adjust to a fair
12 level so that the yield on the stock plus the growth rate provides a fair return to
13 investors on a risk adjusted basis. Accordingly, the current market price of a
14 utility reflects the expected growth rate, which in turn, is directly linked to the
15 expected return on common stock equity. In order to fulfill the investor required
16 market return, it is therefore necessary to fulfill the return on equity expectation
17 by investors as well.

18 Therefore, it is necessary for the merged company to earn the return
19 expected by investors on its common stock equity so that the expected growth
20 rate and return can be achieved by investors, and in turn so that capital
21 attraction can occur.

1 The comparable earnings test I use goes directly to the long-term return on
2 common stock equity anticipated by investors as projected by Value Line.

3 **Q. WHAT RETURN ON COMMON STOCK EQUITY DOES VALUE LINE**
4 **PROJECT FOR THE COMPANIES COMPARABLE TO THE MERGED**
5 **COMPANY?**

6 A. Value Line's long-term return (2000-2002) on common stock equity projections
7 for the merged company's comparable companies, as shown on Schedule
8 CAB-17, is 12.2 percent.

9 **Q. USING THIS TEST, WHAT IS THE COST OF THE MERGED COMPANY'S**
10 **COMMON STOCK?**

11 A. The cost is 12.2 percent.

12 COMPARABLE EARNINGS TEST EVALUATION AND CONCLUSION

13 **Q. PLEASE PROCEED WITH YOUR EVALUATION OF THE COMPARABLE**
14 **EARNINGS TEST, AND ITS INDICATION OF THE MERGED COMPANY'S**
15 **COST OF COMMON STOCK.**

16 A. The Comparable Earnings Test is often criticized as using book returns, which
17 are not indicative of investor required returns. In an efficient market, however,
18 investors price stocks according to the DCF model so that the sum of the yield
19 and growth rate provides a fair return to investors for the level of risk incurred.
20 In turn, the growth rate is based on an expected level of profitability, or return

1 on common stock equity. Therefore, there is a direct linkage between the
2 investor required, market return and the return on book common stock equity.

3 Accordingly, the Comparable Earnings Test provides a valid indication of the
4 necessary return to be allowed on the merged company's common stock equity
5 in order for investors to have an opportunity to earn their required return.
6 Therefore, the necessary allowed return on the common stock of the merged
7 company according to this test is 12.2 percent.

8 STANDARD DCF MODEL FLAW

9 UNDER CURRENT MARKET CONDITIONS

10 **Q. BEFORE EMPLOYING THE STANDARD DCF MODEL TO DETERMINE THE**
11 **MERGED COMPANY'S COST OF COMMON STOCK EQUITY, DO YOU HAVE**
12 **ANY INTRODUCTORY COMMENTS THAT ARE APPROPRIATE TO MAKE AT**
13 **THIS TIME?**

14 **A.** Yes. Most regulatory commissions use the standard DCF model [yield plus
15 growth adjusted for flotation costs is the investor's required return, and the
16 return that should be allowed on common stock equity]. I agree that in theory
17 the standard DCF model is sound. It reflects future cash flows expected to be
18 received by investors discounted to the present at an appropriate rate reflecting
19 opportunities in the market and their relative risks.

20 However, the standard DCF model only works when the price-to-book-value
21 ratio is about 1.0 compared to much higher levels that now exist in the market.

1 Under current market conditions where utility common stocks are trading above
2 book value, adoption of the standard DCF model indication of the investor
3 required return, as the allowed return on common stock equity, will result in an
4 achievable return to investors that is below their required return. Consequently,
5 rational investors will invest their capital elsewhere, capital attraction will be
6 threatened, and the requirements of Hope and Bluefield will not be satisfied.

7 For example, a regulated utility company with a book value of \$25.00, return
8 on equity of 12.5 percent, dividend payout of 80 percent, and a price-to-book
9 value ratio of 1.4 times, or a common stock price of \$35.00, has a standard DCF
10 model required return of 9.6 percent as shown in the upper section on Schedule
11 CAB-18. Adoption of the 9.6 percent return requirement as the cost of common
12 stock, and the allowed regulatory return on common stock equity, however,
13 results in an achievable return to investors of only 6.8 percent as shown in the
14 middle section of Schedule CAB-18. The achievable return of 6.8 percent is
15 only comparable to the return currently available on long-term U.S. government
16 bonds of about 7 percent, which strongly indicates that knowledgeable investors
17 would not invest in such a company's common stock.

18 A further problem indicated in the middle section of data in the Exhibit is that
19 the dividend payout ratio would increase to 104 percent, and likely lead to a
20 dividend cut, which raises additional concerns about the ability to raise capital.

1 Q. CAN YOU SHOW OVER TIME THAT THE RETURN TO INVESTORS WITH A
2 9.6 PERCENT ALLOWED RETURN ON COMMON STOCK EQUITY WILL
3 ONLY BE 6.8 PERCENT?

4 A. Yes. The third unit of information at the bottom of Schedule CAB-18 shows that
5 the 9.6 percent return on common stock equity will result in a sustained return
6 to investors of 6.8 percent.

7 Q. PLEASE STATE YOUR CONCLUSIONS ABOUT THE USE OF THE
8 STANDARD DCF MODEL IN THIS PROCEEDING TO DETERMINE THE
9 MERGED COMPANY'S COST OF COMMON STOCK.

10 A. It is clear that there is a serious flaw in the standard DCF model when price-to-
11 book value ratios are at present levels for utility companies. Simply put,
12 investors cannot achieve the returns in the market that the standard DCF model
13 indicates they require, if the standard DCF model required return is used for the
14 allowed return on common stock equity. Accordingly, capital attraction from
15 rational investors would stop, and the capital attraction standard of Hope and
16 Bluefield could not be fulfilled.

17 Q. DO YOU HAVE FURTHER PROBLEMS WITH THE USE OF THE DCF MODEL
18 AT THIS TIME?

19 A. Yes. I evaluated the accuracy of the standard DCF model by developing
20 expected returns by investors according to the model, and comparing them to
21 actual market returns for 32 electric power companies for 1980-94 that account
22 for about 60 percent of the industry's common stock equity. Investor expected

1 returns consisted of the dividend yield on a forward dividend plus the projected
2 dividend growth rate by Value Line, as prescribed by the DCF theory. The
3 dividend growth forecast was updated each year to ensure it reflected current
4 investor expectations.

5 One would normally expect, assuming a stable discount rate (interest rate),
6 that under and overestimated returns by the DCF model versus the market
7 would even out over time, or over 1980-94.

8 The comparisons, which are shown in the table on Schedule CAB-19, are
9 enlightening. On average, the annual DCF model understated actual returns in
10 the market by 3.5 percentage points annually for 1980-94 (Column 1). However,
11 the 3.5 percentage points understatement of actual investor returns is somewhat
12 biased since the discount rate, or interest rates, were generally in a declining
13 trend. Nonetheless, for 1987-91 when interest rates were flat, the standard DCF
14 model understated actual returns in the market by 2.6 (Column 3) percentage
15 points annually. Using the Value Line projected earnings instead of dividend
16 growth rate results in an understatement of actual returns by 3.1 (Column 4)
17 percentage points annually. While the downward bias was considerably less
18 than for 1980-94, the standard DCF model still substantially understated returns
19 in the market.

20 Therefore, one needs to consider that even when refreshing the growth rate
21 expectations annually, and measuring results when the discount rate and
22 interest rates were flat, the model has had a material downward bias.

1 Q. WHAT IS YOUR CONCLUSION ABOUT USING THE STANDARD DCF
2 MODEL TO DETERMINE THE COST OF COMMON STOCK FOR THE
3 MERGED COMPANY?

4 A. Since it is necessary that investors have an opportunity to earn their required
5 return to comply with Hope and Bluefield, and that capital attraction can occur,
6 I believe that the standard DCF model should only be used to determine the
7 required return by investors, but not be used to set the allowed return on
8 common stock equity for the merged company. Second, I strongly recommend
9 that the End-Result DCF test be used to set the return on common stock equity.

10 In summary, adoption of the required return by investors using the standard
11 DCF model as the return allowed on the merged company's common stock
12 equity will threaten the ability of investors to achieve the return that the model
13 indicates they require. I recommend, therefore, that the standard DCF model
14 return be used to determine the investor required, market return in conjunction
15 with the End-Result DCF model, which determines the necessary allowed return
16 on book, common stock equity to produce the required return by investors. This
17 procedure, or the use of the End-Result DCF model will enable investors to
18 have an opportunity to earn their required return in the market under current
19 market conditions.

20 THE DCF MODEL

21 Q. PLEASE DESCRIBE THE STANDARD DCF MODEL.

Standard DCF Model

A. The standard DCF model is based on the present value theory of investment. In the annual version, the market price that an investor is willing to pay today for a share of common stock is determined by 1) the cash flows that the investor expects to receive from the stock over the period it is held, and 2) the discount rate representing the return required for investing in the stock, or a return comparable to other common stocks of similar risk (also other common stocks or investments on a risk adjusted basis). Cash flow consists of two parts: dividends and the final sale value of the stock. The discount rate is determined by investors' perceptions of alternate investment returns and the relative riskiness of expected cash flows.

Q. HOW IS THE STANDARD DCF MODEL USED TO ESTIMATE THE COST OF COMMON STOCK CAPITAL?

A. The annual form of the standard DCF model can be expressed by the following equation:

$$k = (D1/P_0) + g$$

The DCF model states that the discount rate (cost of common stock or investor-required return), k , is equal to the sum of: 1) the expected dividend in the first holding period, $D1$, divided by a representative market price, P_0 , plus 2) the expected compounded growth rate of dividends, g . The model infers k from the observed dividend yield and investor-expected growth. Essentially, the required return by investors in an efficient market, and before an adjustment for

1 flotation costs, is the sum of the yield on the stock and the expected growth rate
2 in earnings/dividends.

3 **Q. WHAT ARE THE ISSUES IN DETERMINING AN APPROPRIATE DIVIDEND**
4 **YIELD FOR THE COMPARABLE GROUP OF COMPANIES AND THE**
5 **MERGED COMPANY?**

6 A. Since the dividend yield is derived by dividing the expected dividend for the first
7 holding year of the stock by a representative price, there are two issues: (1) a
8 representative price of the comparable stocks, and (2) the amount of the
9 dividend to be received by investors for the first holding year.

10 For a representative price, the efficient market theory shows that investors
11 reflect new information into stock prices soon after such information is available
12 to them. Therefore, current prices, or prices for the very recent past, are
13 generally the best prices to use. Care should be taken, however, to recognize
14 abnormal trading in the markets.

15 **Q. WHAT PERIOD DID YOU USE TO DETERMINE THE REPRESENTATIVE**
16 **PRICE FOR THE MERGED COMPANY'S COMPARABLE GROUP OF**
17 **STOCKS?**

18 A. I used prices for about one month or from March 26, 1997, through April 25,
19 1997. The use of this time period avoids reliance on a spot price, and generally
20 provides sufficient time for market imbalances in supply and demand to even
21 out. Price data for the comparable companies are shown on Schedule CAB-20.

1 **Q. HOW DID YOU DETERMINE THE FIRST HOLDING YEAR DIVIDEND FOR**
2 **THE COMPARABLE COMPANIES AND THE MERGED COMPANY?**

3 A. The dividend to be received by investors for the first holding year of the stock
4 was determined by increasing the current dividend by the applicable growth rate
5 (derived in the next section of this test) at the normal, dividend change, timing
6 pattern for the comparable companies. Where the dividend had not been
7 increased on a regular annual basis, and four quarters or more of time passed
8 without a dividend increase, the dividend was increased in the second quarter
9 of 1997. Supporting data are shown on Schedule CAB-21.

10 **Q. WHAT ARE THE REQUIRED DECISIONS FOR DETERMINING THE**
11 **EXPECTED GROWTH RATES FOR THE MERGED COMPANY'S**
12 **COMPARABLE COMPANIES?**

13 A. Important decision issues are whether investors rely on historical growth as well
14 as projected growth rates, and use earnings growth rates as well as dividend
15 growth rates. The source of growth projections is also a decision issue. In the
16 past, investors have relied on historical and projected rates of growth, but the
17 many dividend policy changes in recent years including strategic changes more
18 recently along with preparation for competition have materially altered the
19 potential growth rates of electric companies. Therefore, historical growth rates
20 are less likely to reflect future growth expectations. Therefore, I now support
21 using projected growth rates along with judgment to determine the growth
22 component of the DCF model.

1 The DCF model, of course, specifies that dividends be used to determine the
2 cash flows expected by investors. However, earnings and dividend growth rates
3 are interchangeable under certain assumptions, and from my experience
4 investors often use both earnings and dividend growth rates. Several services
5 providing growth rates, in fact, provide only earnings growth rates. Therefore,
6 it is appropriate to use both earnings and dividend growth rates for determining
7 projected rates of growth.

8 Finally, there are several sources of growth rates. Value Line is the largest
9 investment service firm, and its publications can be found in many public
10 libraries used by individual investors. This firm provides both historical,
11 smoothed growth rates (normalized for abnormal events), and projected
12 earnings and dividend growth rates. Institutional investors primarily rely on
13 earnings growth data from I/B/E/S. Both sources are used in my testimony to
14 determine investor-expected rates of growth.

15 **Q. WHERE DO YOU SHOW THE GROWTH RATES USED IN YOUR DCF TESTS**
16 **FOR THE MERGED COMPANY'S COMPARABLE COMPANIES?**

17 A. The investor-expected growth rates are shown on Schedule CAB-22.

18 **Q. PLEASE STATE THE RESULTS OF YOUR STANDARD DCF TEST USING**
19 **THE COMPARABLE COMPANIES TO DETERMINE THE COST OF THE**
20 **MERGED COMPANY'S COMMON STOCK.**

21 A. The cost of common stock for the merged company using its comparable
22 companies is 9.9 percent before and 10.2 percent after flotation costs.

1 Supporting data appears in Schedule CAB-23. This exhibit also shows that
2 flotation costs for the merged company's comparable companies is 0.29 percent,
3 or 0.3 percent. The reasons for allowing flotation costs are covered in a
4 subsequent section of my testimony.

5 **Q. SHOULD ONE HAVE CONCERNS ABOUT THE APPLICABILITY OF THE**
6 **STANDARD DCF MODEL FOR DETERMINING THE MERGED COMPANY'S**
7 **COST OF COMMON STOCK?**

8 A. Yes. I believe that one should be concerned about the applicability of all cost
9 models used to determine the cost of common stock to better insure that they
10 are properly used. Such models should have a theoretical foundation,
11 underlying assumptions should be fulfilled, and experience and good judgment
12 are requisites in their use.

13 **Q. DOES THE STANDARD DCF MODEL MEET THESE STANDARDS?**

14 A. Yes, but as discussed above, one needs to exercise caution in its use. The
15 primary reason for caution is that when electric utility stocks are trading below,
16 or above book value which is now the case, investors cannot earn the return
17 that the model indicates investors require. As a result, if the return shown by
18 the standard DCF model under current market conditions is the return allowed
19 by regulators, it would threaten the capital attraction process and be contrary to
20 the best interests of the merged company's customers.

21 The next test, or the End-Result DCF test, assures that investors have a
22 reasonable opportunity to earn their required return so that the requirements of

1 Hope and Bluefield can be fulfilled, and reliable service to customers can
2 continue.

3 END-RESULT DCF TEST

4 **Q. PLEASE DESCRIBE THE END-RESULT DCF TEST.**

5 A. As noted in the previous answer and in Schedule CAB-18, acceptance of the
6 standard DCF model results, as the allowed return on common stock equity, will
7 not enable investors to earn their required return under current market
8 conditions. For example, an allowed return on common stock equity of 10.2
9 percent for the merged company's comparable companies produces only a 7.9
10 percent return to investors as shown on Schedule CAB-24, which is nearly the
11 same as the return on lowest risk capital, or long-term U.S. Government bonds
12 that currently yield about 7 percent. This is an unacceptable prospect for
13 investors. Furthermore, the dividend payout ratio would be 94 percent, which
14 indicates the need to cut the common stock dividend. This would also impede
15 the ability of the merged company to attract capital.

16 Therefore, it is necessary to use the End-Result DCF model in conjunction
17 with the standard DCF model so that investors have the opportunity to earn their
18 required return in the market. The End-Result DCF model shows the necessary
19 return to be allowed on the merged company's common stock equity so that
20 investors have the opportunity to earn their required return that is indicated by
21 the standard DCF model in the market.

1 **Q. WHAT RETURN ON EQUITY MUST BE ALLOWED ON THE COMMON**
2 **STOCK EQUITY OF THE MERGED COMPANY'S COMPARABLE**
3 **COMPANIES SO THAT INVESTORS CAN EARN THEIR REQUIRED**
4 **RETURN?**

5 **A.** The return on equity necessary for investors to earn the 10.2 percent required
6 return in the market for the merged company's comparable companies is 12.5
7 percent. Support for this result is also shown in the lower table on Schedule
8 CAB-24.

9 **Q. PLEASE BRIEFLY EXPLAIN HOW YOU DETERMINED THAT AN ALLOWED**
10 **RETURN ON COMMON STOCK EQUITY USING THE END-RESULT DCF**
11 **TEST FOR THE MERGED COMPANY NEEDS TO BE 12.5 percent USING**
12 **THE MERGED COMPANY'S COMPARABLES.**

13 **A.** The market required return determined by the DCF model will, through the
14 regulatory process, be converted into an allowed return on common stock
15 equity. Using the book value of the comparable companies, one can multiply
16 the book value by various returns on equity to determine the return on equity
17 necessary so that the growth rate is sufficiently large along with the yield to
18 equal the investors' required return. The return on equity necessary for the sum
19 of the yield and growth rate to equal the required return by investors, is the
20 return on equity indicated by the End-Result DCF Model, and the
21 allowed/earned return on common stock equity necessary for investors to earn
22 their required market returns so that capital attraction can occur.

1 DCF MODEL EVALUATION AND CONCLUSIONS

2 **Q. PLEASE EVALUATE THE TEST RESULTS OF THE DCF MODEL.**

3 A. Because it is necessary that investors have an opportunity to earn their required
4 return to comply with Hope and Bluefield and that capital attraction can occur,
5 I believe that the standard DCF model should be used to determine the investor
6 required return, and the End-Result DCF model be used to show the necessary
7 allowed return on common stock equity. The end-result DCF model clearly
8 eliminates the shortfall problem between required and achievable returns in the
9 marketplace, and should be used for this reason.

10 Because it is necessary for investors to have a reasonable opportunity to
11 earn their required returns in order for capital attraction to occur, the DCF model
12 cost of common stock for the merged company using its comparable companies
13 is 12.5 percent including flotation costs.

14
15 FLOTATION COSTS

16 **Q. WHY IS IT NECESSARY TO MAKE AN ADJUSTMENT FOR FLOTATION**
17 **COSTS IN DETERMINING THE ALLOWED RETURN ON COMMON STOCK**
18 **EQUITY?**

19 A. An adjustment for flotation costs is necessary so that investors can earn the
20 return found fair by the Commission on the full amount of their investment. And,
21 as I will show, it is a necessary adjustment even if new common stock is not
22 sold.

1 The reason is that we are not dealing with an expense in the ratemaking
2 sense, but a permanent capital shortfall, or deduction, in earning assets caused
3 by flotation costs. Because of flotation costs, the capital invested by investors
4 is reduced to a lower level, and as a result, regulatory earning assets are less
5 than investor, invested assets. A fair rate of return applied to the lower level of
6 regulatory earning assets, therefore, produces a lower than fair rate of return on
7 the full amount of the investment by investors. A detailed discussion of why the
8 adjustment is necessary along with supporting data appears in Schedule
9 CAB-25.

10 Thus, in order for investors to earn their required return, an adjustment must
11 be made for flotation costs. To determine the adjustment to the investor
12 required return on equity, the dividend yield is first divided by 1.0 minus flotation
13 costs. The result is the "adjusted yield," including the effects of flotation costs.
14 The actual yield is then subtracted from the adjusted yield. This difference, or
15 0.3 percent for the merged company's comparable companies, is the adjustment
16 to the investor required return on common equity for the effects of flotation
17 costs. Supporting data is shown on Schedule CAB-23.

18 **Q. WHAT LEVEL OF FLOTATION COSTS, HAVE YOU ASSUMED IN YOUR**
19 **COMMON STOCK COST ESTIMATE FOR THE MERGED COMPANY?**

20 **A.** There have been several flotation cost studies such as by Bonum and Mallei,
21 which showed flotation costs of about 5.5 percent. A lower estimate by Eckbo
22 and Masulis has been cited in a later study of about 4 percent.

1 While these studies are assumed to be good indicators of flotation costs up
2 to about 1980, in more recent years competition on Wall Street has increased,
3 and new common stock is raised using dividend reinvestment plans and
4 employee stock ownership plans with much lower flotation costs. Therefore, I
5 believe that flotation costs are now lower than indicated by these studies.
6 Overall, I believe the merged company's average flotation costs are about 4
7 percent.

8 **Q. IN DETERMINING FLOTATION COSTS, DO YOU ADJUST FOR RETAINED**
9 **EARNINGS AS WELL AS OTHER FORMS OF COMMON STOCK EQUITY?**

10 A. I do not believe that it is proper to adjust the retained earnings component of
11 common stock equity for flotation costs since there are no flotation costs
12 associated with retained earnings. In determining flotation costs, therefore, I
13 adjust only the yield portion of the return, and not both the yield and growth
14 components of return. I agree that for the growth component (stems from
15 earnings on retained earnings) that there are no flotation costs for this portion
16 of the return to investors.

17 **FINANCIAL INTEGRITY CONSIDERATIONS**

18 **Q. WHAT DOES FINANCIAL INTEGRITY MEAN TO INVESTORS?**

19 A. Financial integrity to investors means a financially healthy company -- one
20 where they can be confident of its ability to earn a fair return of good quality on

1 their investment. More specifically, investor confidence primarily focuses on
2 management and regulation in a qualitative sense, and on bond ratings, and the
3 quality and achievable level of the return on common stock equity in a
4 quantitative sense.

5 **Q. WHAT FINANCIAL BENCHMARK LEVELS ARE APPROPRIATE FOR THE**
6 **MERGED COMPANY'S FINANCIAL INTEGRITY?**

7 A. For bonds, the merged company should have at least a strong, single A bond
8 rating. If competition poses a substantial risk, a double A bond rating is
9 appropriate in my judgment.

10 **Q. WHY IS AT LEAST A STRONG, SINGLE A BOND RATING NECESSARY?**

11 A. A strong, single A bond rating is necessary because there were 10 consecutive
12 months in 1974-75 when utility companies rated triple B could not access the
13 long-term, debt capital markets, although single A utilities could finance during
14 this period. Again in 1991, a utility company rated triple B could not access the
15 short-term debt market. It is clear, therefore, that at least a single A bond rating
16 is necessary.

17 Because unforeseen events can materially erode a company's financial
18 integrity, it is possible that today's single A rated company could become a triple
19 B rated company, and therefore, be vulnerable to the inability to attract capital
20 (even a number of previously rated double A rated utility bonds dropped to triple
21 B, as shown in Schedule CAB-26. Further, public utilities are charged with the

responsibility of adequate and reliable energy services, which are vital to the standards of living of customers and to the economy.

The obligation to serve and the vital nature of utility services, indicates that a strong single A bond rating at a minimum is appropriate for the merged company.

Q. WHAT FINANCIAL INTEGRITY STANDARDS ARE APPROPRIATE FOR THE MERGED COMPANY'S COMMON STOCK?

A. The merged company, as shown by my testimony, should have a reasonable opportunity to earn a 12.9 percent return on its common stock.

Q. TURNING TO BOND INVESTORS, WHAT IS STANDARD & POOR'S CURRENT POSITION ON THE MERGED COMPANY'S BOND RATING AND ITS OUTLOOK?

A. Standard & Poor's in a February 17, 1997 release notes that:

The ratings on Western Resources Inc. ('BBB+' corporate credit rating and senior secured debt) and Kansas City Power & Light Co. ('A' corporate credit rating and senior secured debt) remain on CreditWatch with negative implications.

If Western Resources can complete a merger with Kansas City Power & Light, a financially stronger entity, it is possible that the ratings of the two companies will stabilize at 'BBB+'. Yet this would depend on the consolidated entity's financial profile, management's willingness to reduce debt after the merger, and the speed with which projected savings can be realized.

Q. WHAT IS THE POSITION OF MOODY'S ON THE BOND RATING OF WESTERN RESOURCES AND KANSAS CITY POWER & LIGHT?

1 A. In a February 10, 1997, review Moody's notes that both Kansas City Power Light
2 and Western Resources are under review for a possible downgrade.

3 Q. **WHAT IS IMPORTANT TO CONCLUDE FROM THE RATING ANALYSES ON**
4 **THE OUTLOOK FOR THE MERGED COMPANY'S BOND RATING?**

5 A. First, the outlook for the merged company's bond rating is negative. Second, the
6 rating agencies do not appear to have allowed for the prospect of merger savings
7 improving the financial benchmarks of the merged company. This is
8 understandable at this point in the progression of the proposed merger since
9 testimony has not been filed, and the sharing of merger savings has not yet been
10 determined by the appropriate regulatory commissions.

11 Third, it is important that the bond rating of the merged company increase in
12 order that the ability to access the capital markets in both good and bad markets
13 can reliably occur.

14 Q. **DID YOU PERFORM A FINANCIAL INTEGRITY TEST TO DETERMINE**
15 **WHETHER A 12.9 PERCENT ALLOWED AND EARNED RETURN ON COMMON**
16 **STOCK EQUITY WILL PROVIDE THE MERGED COMPANY WITH AN**
17 **ACCEPTABLE LEVEL OF FINANCIAL INTEGRITY?**

18 A. Yes. Schedule CAB-27 shows 1996 pro-forma financial results for the merged
19 company's utility operations with a 12.9 percent return on common stock equity
20 Based on the financial benchmarks used by S&P, it would appear, as S&P has
21 indicated, that the merged company would have a strong, triple B bond rating, or
22 "BBB+," with a 12.9 percent return on its common stock equity. This is lower than

1 a reasonable level of financial integrity because electric utilities with triple B rated.
2 bonds have not been able to access the long-term capital markets for debt capital
3 in the past.

4 However, S&P and other rating agencies have not had a chance to review
5 testimony to be filed in this case, or the responses to it from the appropriate
6 regulatory commissions. Given the substantial amount of merger savings and the
7 sharing mechanism in the merged company's regulatory plan, there will be an
8 opportunity for the merged company to earn a 12.9 percent return on common
9 equity and share amounts beyond this level with its customers. In my opinion, this
10 will help the company achieve a single A bond rating. The financial incentives in
11 its regulatory plan provide additional impetus for this to occur. Nonetheless, the
12 financial integrity test indicates that 12.9 percent should be the minimal allowed
13 return on the merged company's common stock.

14 MERGED COMPANY'S COST OF COMMON STOCK CONCLUSIONS

15 **Q. WHAT ARE YOUR CONCLUSIONS ABOUT THE MERGED COMPANY'S COST**
16 **OF COMMON STOCK?**

17 **A.** In a quantitative sense, I used four models to determine the required return on
18 common stock equity by the merged company's common stock investors. A
19 summary of the model results, which include flotation costs, are shown on
20 Schedule CAB-28.

1 The Equity Risk Premium test indicated a cost of common stock for the merged
2 company based on its comparable companies of 13.5 percent. A possible
3 deficiency with this test is that only historical equity risk premiums were used.
4 However, as indicated earlier in my testimony, the DCF model that is used to
5 develop expectational equity risk premiums is biased by the problems shown in
6 Schedule CAB-19, and therefore, would likely provide unreliable cost estimates.
7 Furthermore, the test used an expectational interest rate that accounts for about
8 one-half of the cost estimate, and the historical equity risk premium may
9 understate risk because investor expectations of business risk have been rising
10 due to competition risk.

11 It was also shown that the Equity Risk Premium model using historical equity
12 risk premiums was more accurate in replicating market returns than the standard
13 DCF model for a large group of electric utility companies, and therefore, should
14 be favored versus the standard DCF model. This is especially so since the
15 standard DCF model does not work at this time, and historically has had a
16 material downward bias by a market test.

17 The second model, or CAPM using an adjusted beta, showed an average cost
18 of 13.1 percent for the merged company's comparable group. An adjusted beta
19 was necessarily used in this test because individual investors generally lack
20 sufficient diversification in their common stock portfolios to enable CAPM to
21 properly work, and for its cost estimates to be valid. Furthermore, strong
22 empirical data spanning 20 years showed that beta understates risk for electric

1 utility common stocks, and a consensus view among academics is that CAPM
2 understates returns for companies with low betas.

3 The third test was the Comparable Earnings test that looks directly to the
4 return on common stock equity that investors expect the merged company's
5 comparable companies to earn. This is a valid test because the return on
6 common stock equity expected by investors is directly linked to the growth rate,
7 which is a component of the return that investors require. This test showed a
8 long-term cost of common stock of 12.2 percent for the merged company's
9 comparable companies.

10 The End-Result DCF test, or the fourth test, assures that the required return
11 by investors indicated by the standard DCF model can be earned in the
12 marketplace by investors so that capital attraction and reliable, customer service
13 can occur. This test indicates a 12.5 percent cost of common stock.

14 Overall, the models used to determine the merged company's cost of common
15 stock showed a cost range of 12.2 percent to 13.5 percent. After allowing for the
16 higher risk of the combined company versus its comparable companies, and the
17 likely reduction in risk for the merged company versus being two stand-alone
18 companies, the merged company's cost of common stock in my judgment is 12.9
19 percent including flotation costs.

20 Assuming adoption of the merged company's regulatory plan including a 12.9
21 percent return on common stock equity, the merged company's bond rating may
22 start at a strong, triple B rating. However, financial incentives to maximize merger

- 1 savings and generate additional non-merger savings should help the merged
2 company to achieve higher financial benchmarks and an A rating on its bonds.
3 Q. **THANK YOU.**

Qualifications of Charles A. Benore

EMPLOYER AND BUSINESS ADDRESS	BENORE FINANCIAL CONSULTING, INC. 756 Pequot Avenue New London, CT 06320
DUTIES	Provide consulting services to utility companies
EDUCATION	Ohio University - Bachelor of Science in Commerce Ohio State University - Master of Arts in Economics
WORK EXPERIENCE	Financial Analyst and Investment Advisor for the past 28 years in public utilities, and employed successively by Duff & Phelps, E.I, duPont, Salomon Brothers, PaineWebber, and since May, 1995 Benore Financial Consulting, Inc.
TESTIMONY	<p>Presented testimony before <u>28 state Public Service Commissions, the Federal Power Commission and Federal Energy Regulatory Commission</u> on cost of capital, fuel cost recovers, a cash return on construction work in progress, earnings attrition, and financial integrity.</p> <p>Testified before the <u>Securities and Exchange Commission</u> on the fairness of the exchange ratio for an acquisition of a utility company.</p> <p>Also testified before the <u>U.S. House of Representatives: Subcommittee on Energy Conservation and Power</u> on "Financial Condition of Utilities and Their Future in the 1980's," and on "Earning a Cash Return on Construction Work in Progress," Subcommittee on Science and Technology on "The Future of the Nation's Energy Utilities"</p> <p>In the <u>U.S. Senate: Subcommittee on Banking, Housing, and Urban Affairs</u> on "Reform of the Public Utility Holding Company Act of 1935.</p>
PRINCIPAL PRESENTATIONS	<p><u>NARUC Annual Convention and Regulatory Symposium</u> on "Utility Finance"</p> <p><u>NARUC Staff Subcommittee of Accounts</u> on "Accounting Procedures and Standards Related to Capital Formation in the Electric Power Industry"</p> <p><u>Iowa State University Regulatory Conference</u> on "Investor Appraisal of Return on Plant Under Construction" and "Financial Policy Goals for a Possible 'Star Wars' Environment"</p>

Qualifications of Charles A. Benore

American Bar Association National Institute on "An Investor Perspective of Financial Integrity and Comparability"

University of Florida Public Utility Research Center on "Financial Integrity and the Ability to Raise Capital"

Michigan State University Utility Conference on "The Financial Viability Prospects of the Electric Utility Industry"

Edison Electric Institute Financial Conference on "Dividend Policy and Common Share Valuation of Electric Utilities," "Closing the Gap between Allowed and Realized Return on Common Stock Equity," and "New Valuation Methods for a New Industry Structure."

FACULTY

For more than fifteen years, I was the Bank of New York's (previously Irving Trust) faculty member providing instruction on determining the cost of common stock equity for regulators and management, and assessing investor attitudes towards utility common stocks.

TV PROGRAM APPEARANCES

Wall Street Week
Wall Street Perspective
Cable News Network

TASK FORCES

Informational Task Force to the Energy Transition Team of the Reagan Administration on "Recommendations to Restore the Financial Health of the U.S. Electrical Power Industry"

Financial Accounting Standards Board on Utility Accounting from an Investor Perspective

SEMINARS

Investment Management Workshop, Harvard University
Investments Risk Analysis Seminar at the University of Virginia
Securities Analysis Seminar at Rockford College

MEMBERSHIPS

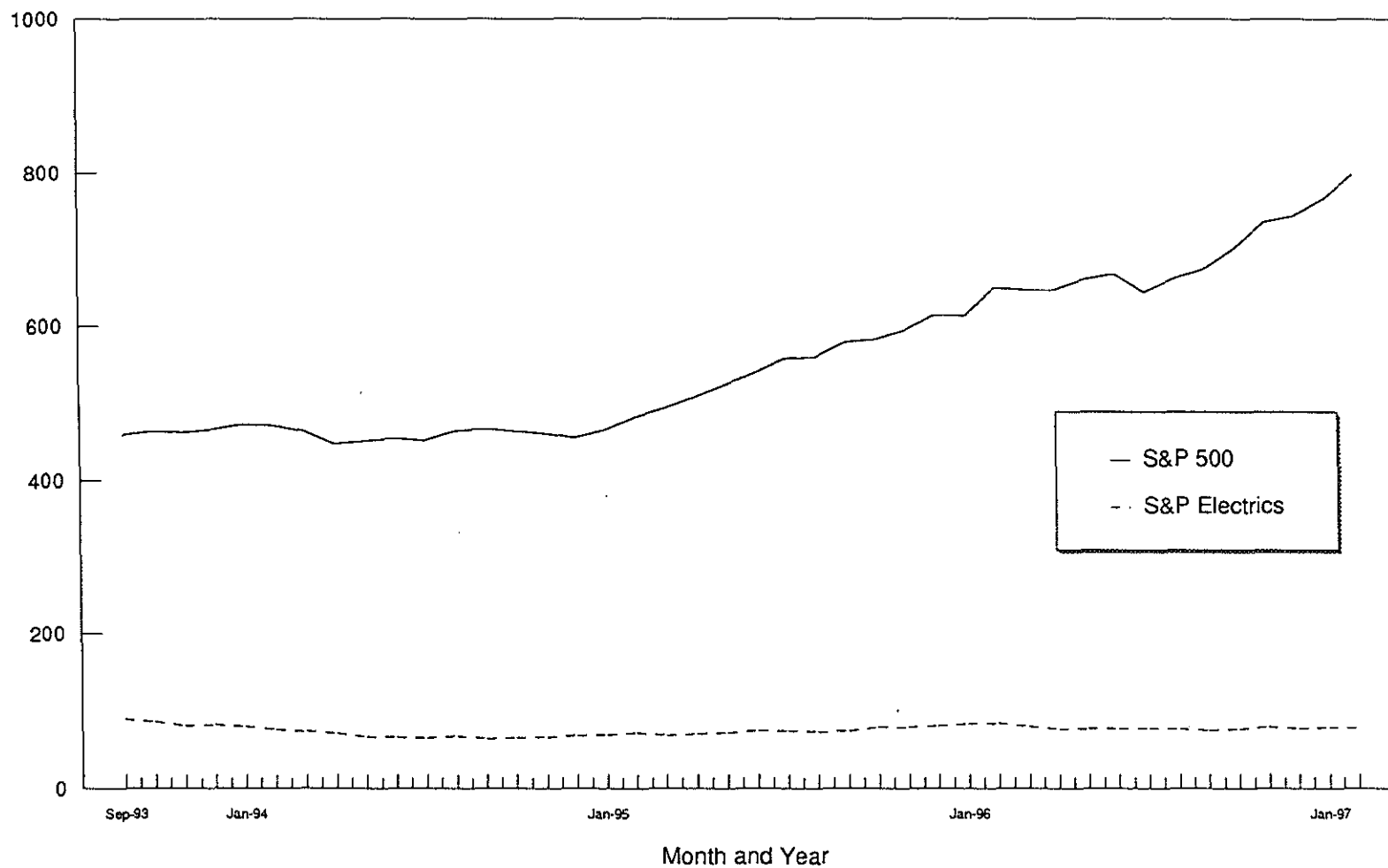
Association for Investment Management and Research
Chartered Financial Analyst

HONORS

Ranked among national leading utility analysts for 22 consecutive years according to a poll conducted by Institutional Investor magazine

Phi Kappa Phi
Beta Gamma Sigma

The S&P Electrics Have Dramatically Underperformed the Market



**Return on Average Book Value for Standard & Poor's
S&P 500 Composite, 1993-1997**

	EPS	DPS	YR-END BookValue	AVG BookValue	ROE on Avg.BkVal
1992			149.74		
1993	21.89	12.58	149.96	149.85	14.6%
1994	30.60	13.18	158.29	154.13	19.9%
1995	33.96	13.79	174.40	166.35	20.4%
E1996	38.75	14.90	198.25	186.33	20.8%
E1997	45.78	15.14	228.89	213.57	21.4%
Avg.					19.4%

Source: All Data except 1996 and 1997 Book Values
is S&P. Book Values for 1996 and 1997 are previous
year plus retained earnings for the following year

Risk Indicators for the Merged Company (MC) and its Comparable Companies

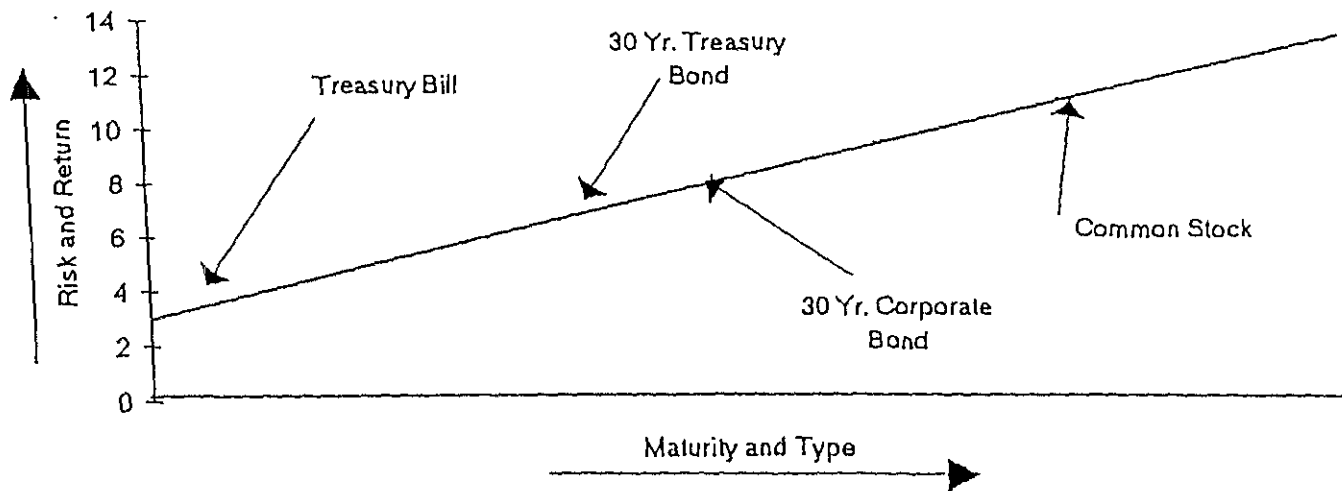
	1	2	3	4	5	6	7	8	9
Company	VL Safety Rank	Beta	Moody's & S&P Bond Rating	Val Line Regulation	Compet. Position	Nuclear	Primarily Elect Util	Regulated Company	Debt to Capital %
DEW	2	0.70	A2/A	Average	OK	Yes	Yes	Yes	44
D	2	0.75	A2/A	Average	OK	Yes	Yes	Yes	45
FPC	2	0.65	Aa3/AA-	Abv. Avg.	OK	Yes	Yes	Yes	43
FPL	2	0.80	Aa3/AA-	Abv. Avg.	OK	Yes	Yes	Yes	42
PPL	2	0.75	A3/A-	Average	OK	Yes	Yes	Yes	48
SCG	2	0.75	A1/A	Average	OK	Yes	Yes	Yes	47
SO	1	0.70	A1/A+	Average	OK	Yes	Yes	Yes	45
UEP	1	0.70	A1/AA-	Average	OK	Yes	Yes	Yes	41
Avg.	2	0.73	A1/A+	Average	OK	Yes	Yes	Yes	44
KLT	2	0.80	A1/A	Average	OK	Yes	Yes	Yes	46
WR	2	0.65	A3/BBB+	Average	OK	Yes	Yes	Yes	47
MC	2	0.70	A2/A-	Average	OK	Yes	Yes	Yes	47

Criteria

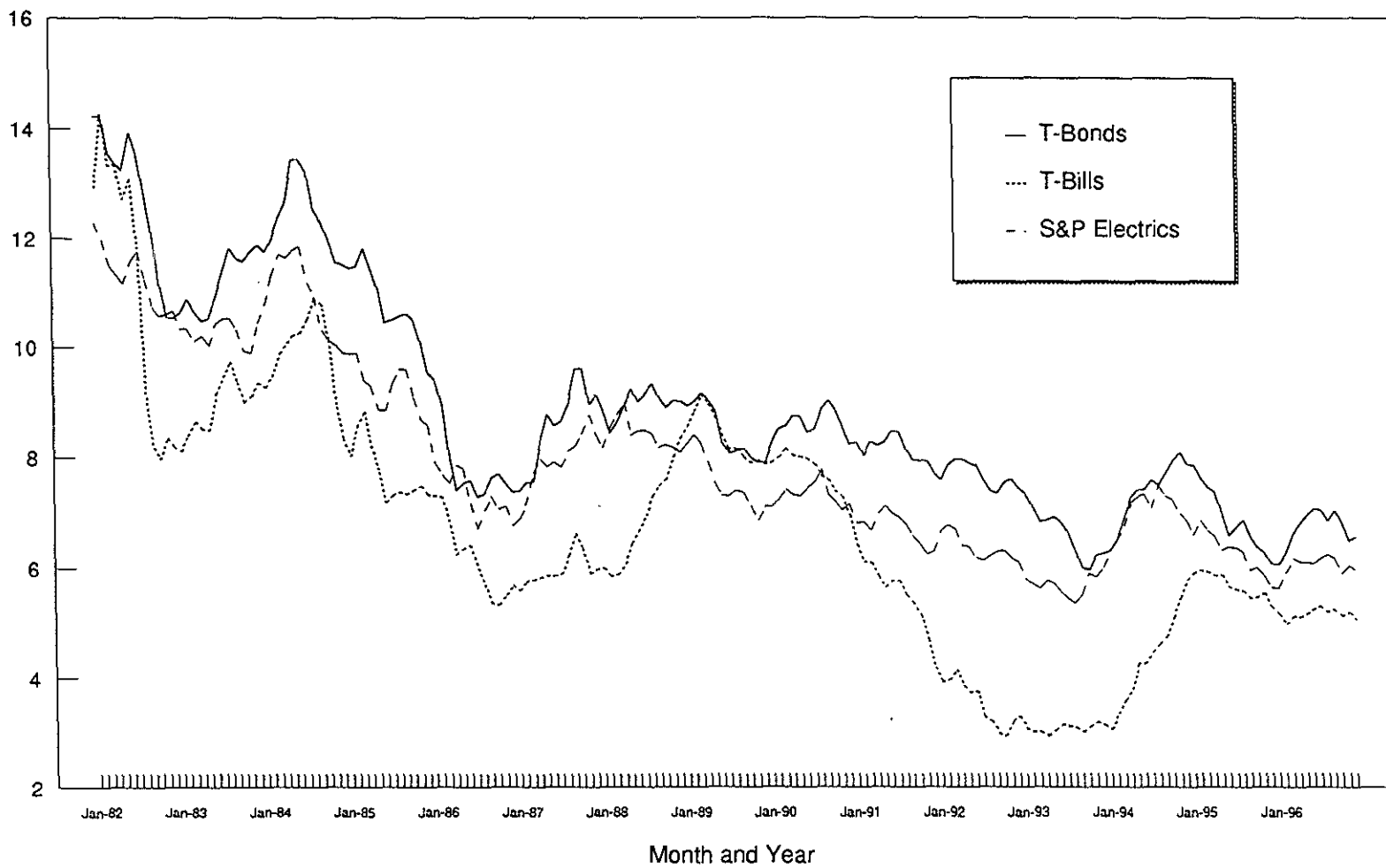
1. Value Line Safety Rank 1 or 2, Value Line recommends 1 or 2 for conservative investors
2. Value Line Beta plus .10 or minus .10 versus Combined Company's beta
3. Moody's and S&P's Bond Rating; Investment grade and three notches either side of Combined Company
4. Value Line Regulation
5. Average or Better Competitive Position Indicated by Average Industrial Rate Under \$0.06 per Kwh
6. Nuclear Generation
7. Primarily an Electric Company; Included in Value Line's Electric Industry Data
8. Regulated Company
9. Debt to Capital Ratio from Value Line as a Measure of Financial Risk

Sources: Value Line, Moody's, Standard & Poor's, and Regulatory Research Associates

Example of Returns on Lowest Risk to Highest Risk Investments
by Type of Security



Yield Comparison for T-Bonds, T-Bills and S&P Electrics



**Equity Risk Premium for 32 Electric Power Companies
for the 1976-1982 and 1983-1991 Economic Cycles**

	1976-1982 Eq Risk Prem % pts	1983-1991 Eq Risk Prem % pts	1976-91 Eq Risk Prem % pts
AYP	9.39	3.30	6.35
AEP	1.85	4.67	3.26
BGE	7.48	5.42	6.45
CPL	3.96	6.57	5.27
CSR	2.84	8.63	5.74
ED	NR	7.31	7.31
DPL	4.72	7.69	6.21
DTE	5.24	9.49	7.37
D	5.14	7.10	6.12
DUK	5.12	7.22	6.17
FPL	6.09	3.63	4.86
FPC	6.36	6.06	6.21
HOU	5.45	6.66	6.06
NES	11.53	3.94	7.74
NU	8.13	4.85	6.49
NSP	4.41	7.32	5.87
OGE	1.80	4.33	3.07
PPW	3.74	5.23	4.49
PPL	5.14	6.64	5.89
POM	10.44	7.31	8.88
PSR	4.66	1.58	3.12
PEG	8.55	3.73	6.14
PSD	7.29	4.14	5.72
SCE	11.67	6.80	9.24
SDO	11.83	6.71	9.27
SCG	5.01	6.84	5.93
SO	6.14	5.73	5.94
SPS	8.00	3.80	5.90
TE	2.91	10.50	6.71
TXU	3.01	2.85	2.93
UEP	5.23	9.45	7.34
WEC	4.97	8.88	6.93
Average	6.07	6.07	6.07

NR: Not representative, actual value was 19.57,
and represents recovery from DPS reduction shock
Sources: Compustat, Value Line, Ibbotson Associates

Equity Risk Premium Study for MC's Comparable Companies

Company	Risk Premium
DEW	3.45%
D	7.11%
FPC	6.06%
FPL	3.63%
PPL	6.64%
SCG	6.84%
SO	5.73%
UEP	9.45%
Avg.	6.11%
KLT	7.74%
WR	6.26%
MC	6.78%

Company Data

	Price	DPS	Split Adj	Adj Price	Adj DPS	Price Change	Yield	Total Return	LTUSG Total Retn	Equity Risk Prem
DEW										
1991	21.25	1.54	1.0	21.25	1.54	17.24%	8.50%	25.74%	19.30%	6.44%
1990	18.13	1.54	1.0	18.13	1.54	-13.17%	7.38%	-5.80%	6.18%	-11.98%
1989	20.88	1.50	1.0	20.88	1.50	17.61%	8.45%	26.06%	18.11%	7.95%
1988	17.75	1.46	1.0	17.75	1.46	-1.39%	8.11%	6.72%	9.67%	-2.95%
1987	18.00	1.41	1.0	18.00	1.41	-18.18%	6.42%	-11.76%	-2.71%	-9.05%
1986	33.00	2.02	1.5	22.00	1.35	18.39%	7.25%	25.63%	24.53%	1.10%
1985	27.88	1.92	1.5	18.58	1.28	26.70%	8.73%	35.43%	30.97%	4.46%
1984	22.00	1.80	1.5	14.67	1.20	14.29%	9.35%	23.64%	15.48%	8.16%
1983	19.25	1.64	1.5	12.83	1.09	17.56%	10.02%	27.57%	0.65%	26.92%
1982	16.38		1.5	10.92						
Avg 83-91										3.45%

Equity Risk Premium Study for MC's Comparable Companies

	Price	DPS	Split Adj	Adj Price	Adj DPS	Price Change	Yield	Total Return	LTUSG Total Retn	Equity Risk Prem
D										
1991	57.00	3.47	1.5	38.00	2.31	21.60%	7.40%	29.00%	19.30%	9.70%
1990	46.88	3.35	1.5	31.25	2.23	-1.32%	7.05%	5.74%	6.18%	-0.44%
1989	47.50	3.23	1.5	31.67	2.15	12.76%	7.67%	20.43%	18.11%	2.32%
1988	42.13	3.11	1.5	28.08	2.07	1.81%	7.52%	9.33%	9.67%	-0.34%
1987	41.38	2.99	1.5	27.58	1.99	-6.50%	6.76%	0.26%	-2.71%	2.97%
1986	44.25	2.87	1.5	29.50	1.91	24.65%	8.08%	32.73%	24.53%	8.20%
1985	35.50	2.75	1.5	23.67	1.83	22.94%	9.52%	32.47%	30.97%	1.50%
1984	28.88	2.60	1.5	19.25	1.73	30.51%	11.75%	42.26%	15.48%	26.78%
1983	22.13	2.44	1.5	14.75	1.63	2.61%	11.32%	13.92%	0.65%	13.27%
1982	14.38		1.0	14.38						
Avg 83-91										7.11%

	Price	DPS	Split Adj	Adj Price	Adj DPS	Price Change	Yield	Total Return	LTUSG Total Retn	Equity Risk Prem
FPC										
1991	47.00	2.77	1.5	31.33	1.84	22.88%	7.23%	30.10%	19.30%	10.80%
1990	38.25	2.67	1.5	25.50	1.78	-4.37%	6.66%	2.29%	6.18%	-3.89%
1989	40.00	2.58	1.5	26.67	1.72	14.29%	7.37%	21.66%	18.11%	3.55%
1988	35.00	2.50	1.5	23.33	1.67	6.87%	7.63%	14.50%	9.67%	4.83%
1987	32.75	2.42	1.5	21.83	1.61	-17.35%	6.11%	-11.24%	-2.71%	-8.53%
1986	39.63	2.31	1.5	26.42	1.54	28.86%	7.51%	36.37%	24.53%	11.84%
1985	30.75	2.19	1.5	20.50	1.46	29.47%	9.22%	38.69%	30.97%	7.72%
1984	23.75	2.07	1.5	15.83	1.38	17.28%	10.22%	27.51%	15.48%	12.03%
1983	20.25	1.95	1.5	13.50	1.30	6.58%	10.26%	16.84%	0.65%	16.19%
1982	19.00		1.5	12.67						
Avg 83-91										6.06%

	Price	DPS	Split Adj	Adj Price	Adj DPS	Price Change	Yield	Total Return	LTUSG Total Retn	Equity Risk Prem
FPL										
1991	37.00	2.39		37.00	2.39	27.59%	8.24%	35.83%	19.30%	16.53%
1990	29.00	2.34		29.00	2.34	-20.27%	6.43%	-13.84%	6.18%	-20.02%
1989	36.38	2.26		36.38	2.26	16.87%	7.26%	24.13%	18.11%	6.02%
1988	31.13	2.18		31.13	2.18	8.73%	7.62%	16.35%	9.67%	6.68%
1987	28.63	2.10		28.63	2.10	-9.49%	6.64%	-2.85%	-2.71%	-0.14%
1986	31.63	2.02	1.0	31.63	2.02	11.95%	7.15%	19.10%	24.53%	-5.43%
1985	28.25	1.94	1.0	28.25	1.94	26.26%	8.67%	34.93%	30.97%	3.96%
1984	44.75	3.72	2.0	22.38	1.86	11.18%	9.24%	20.42%	15.48%	4.94%
1983	40.25	3.54	2.0	20.13	1.77	11.03%	9.77%	20.80%	0.65%	20.15%
1982	36.25		2.0	18.13						
Avg 83-91										3.63%

Equity Risk Premium Study for MC's Comparable Companies

	Price	DPS	Split Adj	Adj Price	Adj DPS	Yield	Price Change	Total Return	LTUSG Total Retn	Equity Risk Prem
PPL										
1991	52.63	3.07	2.0	26.31	1.54	7.02%	20.29%	27.30%	19.30%	8.00%
1990	43.75	2.95	2.0	21.88	1.48	6.88%	2.04%	8.92%	6.18%	2.74%
1989	42.88	2.84	2.0	21.44	1.42	7.85%	18.69%	26.53%	18.11%	8.42%
1988	36.13	2.74	2.0	18.06	1.37	8.30%	9.47%	17.77%	9.67%	8.10%
1987	33.00	2.66	2.0	16.50	1.33	7.29%	-9.59%	-2.30%	-2.71%	0.41%
1986	36.50	2.57	2.0	18.25	1.29	8.94%	26.96%	35.90%	24.53%	11.37%
1985	28.75	2.54	2.0	14.38	1.27	10.11%	14.43%	24.54%	30.97%	-6.43%
1984	25.13	2.46	2.0	12.56	1.23	11.93%	21.82%	33.75%	15.48%	18.27%
1983	20.63	2.38	2.0	10.31	1.19	11.33%	-1.79%	9.55%	0.65%	8.90%
1982	21.00		2.0	10.50						
Avg 83-91										6.64%

	Price	DPS	Split Adj	Adj Price	Adj DPS	Price Change	Yield	Total Return	LTUSG Total Retn	Equity Risk Prem
SCG										
1991	44.25	2.60	2.0	22.13	1.30	27.80%	7.49%	35.29%	19.30%	15.99%
1990	34.63	2.51	2.0	17.31	1.25	-3.15%	7.01%	3.86%	6.18%	-2.32%
1989	35.75	2.45	2.0	17.88	1.22	10.85%	7.58%	18.43%	18.11%	0.32%
1988	32.25	2.38	2.0	16.13	1.19	13.16%	8.35%	21.51%	9.67%	11.84%
1987	28.50	2.30	2.0	14.25	1.15	-22.18%	6.28%	-15.90%	-2.71%	-13.19%
1986	36.63	2.22	2.0	18.31	1.11	31.39%	7.96%	39.35%	24.53%	14.82%
1985	27.88	2.13	2.0	13.94	1.07	17.99%	9.02%	27.01%	30.97%	-3.96%
1984	23.63	2.04	2.0	11.81	1.02	33.10%	11.48%	44.57%	15.48%	29.09%
1983	17.75	1.98	2.0	8.88	0.99	-1.39%	11.00%	9.61%	0.65%	8.96%
1982	18.00		2.0	9.00						
Avg 83-91										6.84%

	Price	DPS	Split Adj	Adj Price	Adj DPS	Price Change	Yield	Total Return	LTUSG Total Retn	Equity Risk Prem
SO										
1991	34.38	2.14	2.0	17.19	1.07	23.31%	7.68%	30.99%	19.30%	11.69%
1990	27.88	2.14	2.0	13.94	1.07	-4.29%	7.35%	3.06%	6.18%	-3.12%
1989	29.13	2.14	2.0	14.57	1.07	30.16%	9.56%	39.72%	18.11%	21.61%
1988	22.38	2.14	2.0	11.19	1.07	0.00%	9.56%	9.56%	9.67%	-0.11%
1987	22.38	2.14	2.0	11.19	1.07	-11.82%	8.43%	-3.39%	-2.71%	-0.68%
1986	25.38	2.07	2.0	12.69	1.04	14.07%	9.30%	23.37%	24.53%	-1.16%
1985	22.25	1.95	2.0	11.13	0.98	17.85%	10.33%	28.18%	30.97%	-2.79%
1984	18.88	1.83	2.0	9.44	0.92	15.26%	11.17%	26.43%	15.48%	10.95%
1983	16.38	1.73	2.0	8.19	0.87	4.80%	11.07%	15.87%	0.65%	15.22%
1982	15.63		2.0	7.82						
Avg 83-91										5.73%

Equity Risk Premium Study for MC's Comparable Companies

	Price	DPS	Split Adj	Adj Price	Adj DPS	Price Change	Yield	Total Return	LTUSG Total Retn	Equity Risk Prem
UEP										
1991	38.63	2.18	1.0	38.63	2.18	29.83%	7.33%	37.16%	19.30%	17.86%
1990	29.75	2.10	1.0	29.75	2.10	3.93%	7.34%	11.27%	6.18%	5.09%
1989	28.63	2.02	1.0	28.63	2.02	18.65%	8.37%	27.03%	18.11%	8.92%
1988	24.13	1.94	1.0	24.13	1.94	7.82%	8.67%	16.49%	9.67%	6.82%
1987	22.38	1.92	1.0	22.38	1.92	-22.17%	6.68%	-15.50%	-2.71%	-12.79%
1986	28.75	1.86	1.0	28.75	1.86	34.50%	8.70%	43.20%	24.53%	18.67%
1985	21.38	1.78	1.0	21.38	1.78	29.55%	10.79%	40.33%	30.97%	9.36%
1984	16.50	1.72	1.0	16.50	1.72	28.16%	13.36%	41.51%	15.48%	26.03%
1983	12.88	1.66	1.0	12.88	1.66	-6.36%	12.07%	5.71%	0.65%	5.06%
1982	13.75		1.0	13.75						
Avg 83-91										9.45%

	Price	DPS	Split Adj	Adj Price	Adj DPS	Price Change	Yield	Total Return	LTUSG Total Retn	Equity Risk Prem
KLT										
1991	47.38	2.74	2.0	23.69	1.37	34.41%	7.77%	42.18%	19.30%	22.88%
1990	35.25	2.62	2.0	17.63	1.31	1.06%	7.51%	8.57%	6.18%	2.39%
1989	34.88	2.50	2.0	17.44	1.25	11.15%	7.97%	19.12%	18.11%	1.01%
1988	31.38	2.34	2.0	15.69	1.17	25.52%	9.36%	34.88%	9.67%	25.21%
1987	25.00	2.12	2.0	12.50	1.06	-10.71%	7.57%	-3.14%	-2.71%	-0.43%
1986	28.00	2.09	2.0	14.00	1.05	23.73%	9.24%	32.97%	24.53%	8.44%
1985	22.63	2.36	2.0	11.32	1.18	13.83%	11.87%	25.70%	30.97%	-5.27%
1984	19.88	2.33	2.0	9.94	1.17	6.03%	12.43%	18.45%	15.48%	2.97%
1983	18.75	2.17	2.0	9.38	1.09	1.35%	11.75%	13.10%	0.65%	12.45%
1982	27.75		3.0	9.25						
Avg 83-91										7.74%

	Price	DPS	Split Adj	Adj Price	Adj DPS	Price Change	Yield	Total Return	LTUSG Total Retn	Equity Risk Prem
WR										
1991	28.38	2.04	1.0	28.38	2.04	34.31%	9.65%	43.97%	19.30%	24.67%
1990	21.13	1.80	1.0	21.13	1.80	-14.63%	7.27%	-7.35%	6.18%	-13.53%
1989	24.75	1.76	1.0	24.75	1.76	8.17%	7.69%	15.87%	18.11%	-2.24%
1988	22.88	1.72	1.0	22.88	1.72	1.10%	7.60%	8.71%	9.67%	-0.96%
1987	22.63	1.65	1.0	22.63	1.65	-16.77%	6.07%	-10.70%	-2.71%	-7.99%
1986	54.38	3.16	2.0	27.19	1.58	36.81%	7.95%	44.75%	24.53%	20.22%
1985	39.75	2.96	2.0	19.88	1.48	18.66%	8.84%	27.49%	30.97%	-3.48%
1984	33.50	2.76	2.0	16.75	1.38	11.67%	9.20%	20.87%	15.48%	5.39%
1983	30.00	2.56	2.0	15.00	1.28	24.33%	10.61%	34.94%	0.65%	34.29%
1982	24.13		2.0	12.07						
Avg 83-91										6.26%

Source: Compustat, Ibbotson Associates

Yield to Maturity for 30 Year U.S. Treasury Bonds

	Yield on 30 Yr. T-Bonds %
26-Mar-97	7.00
27-Mar-97	7.09
31-Mar-97	7.10
01-Apr-97	7.09
02-Apr-97	7.08
03-Apr-97	7.08
04-Apr-97	7.14
07-Apr-97	7.08
08-Apr-97	7.11
09-Apr-97	7.11
10-Apr-97	7.11
11-Apr-97	7.17
14-Apr-97	7.17
15-Apr-97	7.10
16-Apr-97	7.11
17-Apr-97	7.07
18-Apr-97	7.06
21-Apr-97	7.09
22-Apr-97	7.05
23-Apr-97	7.07
24-Apr-97	7.12
25-Apr-97	7.14
Average	7.10

Source: Quotron/PaineWebber

Schedule CAB-8

**Equity Risk Premium Cost of Common Stock for
MC Comparable Companies**

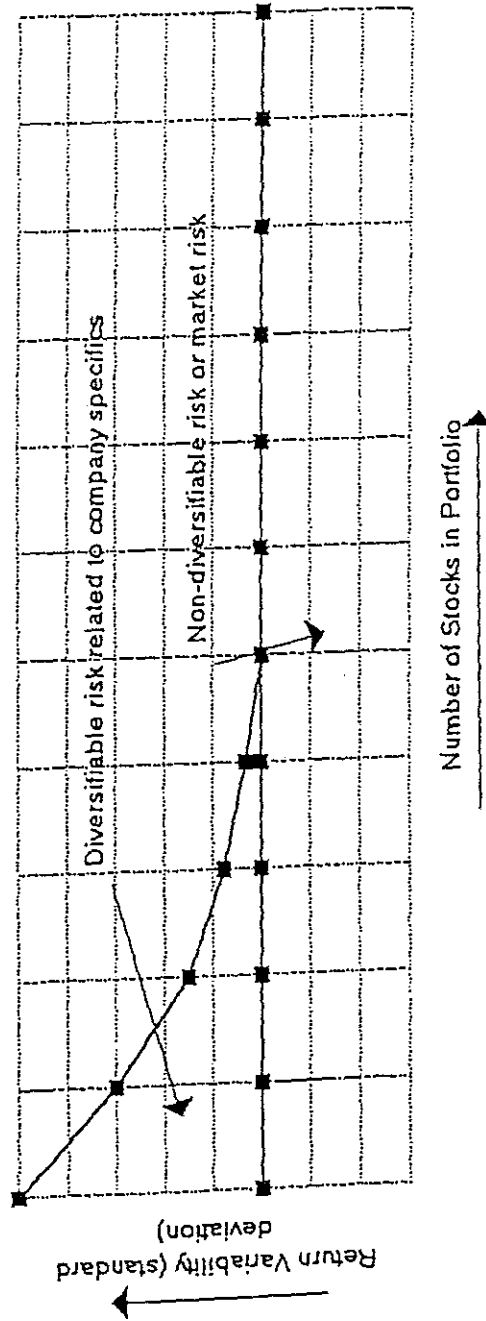
	ERP	T-Bond Yield	Cost Common
MC Comparables	6.11%	7.10%	13.2%
KLT	7.74%	7.10%	14.8%
WR	6.26%	7.10%	13.4%
MC(1)	6.78%	7.10%	13.9%

(1) .35KLT + .65WR

Sources: CAB 14 and CAB-15

Schedule CAB-9

Portfolio Size and Return Variability



The Typical Adult Stockholder

	Male	Female
Age	45	44
Median Household Income	\$46,000	\$39,400
Median Portfolio Size	\$13,500	\$7,200
Average Number of Stocks Owned (a)	3.4	3.0
Own Mutual Fund	60.0%	59.4%
Own 1 Stock Issue Only	29.10%	31.30%
Education	College Graduate	Some College
Occupation	Professional Managerial	Professional Managerial
Method of Stock Acquisition	Broker	Broker

(a) Mutual fund holding counts as a stock

Source: Shareownership 1990, New York Stock Exchange

Annual Total Return, S&P 500 and S&P Electrics, 1974-93

Year	S&P500					S&P Electrics				
	Closing Price	DPS Paid \$	Price Change %	Yield %	Total Return %	Closing Price	DPS Paid \$	Price Change %	Yield %	Total Return %
1973	97.55					32.85				
1974	68.56	3.60	-29.72	3.69%	-26.03%	22.03	2.60	-32.94%	7.91%	-25.02%
1975	90.19	3.68	31.55%	5.37%	36.92%	30.56	2.66	38.72%	12.07%	50.79%
1976	107.46	4.05	19.15%	4.49%	23.64%	35.17	2.71	15.09%	8.87%	23.95%
1977	95.10	4.67	-11.50%	4.35%	-7.16%	35.67	2.85	1.42%	8.10%	9.53%
1978	96.11	5.07	1.06%	5.33%	6.39%	31.38	3.03	-12.03%	8.49%	-3.53%
1979	107.94	5.65	12.31%	5.88%	18.19%	28.44	3.21	-9.37%	10.23%	0.86%
1980	135.76	6.16	25.77%	5.71%	31.48%	27.19	3.36	-4.40%	11.81%	7.42%
1981	122.55	6.63	-9.73%	4.88%	-4.85%	29.33	3.55	7.87%	13.06%	20.93%
1982	140.64	6.87	14.76%	5.61%	20.37%	36.15	3.78	23.25%	12.89%	36.14%
1983	164.93	7.09	17.27%	5.04%	22.31%	37.14	4.00	2.74%	11.07%	13.80%
1984	167.24	7.53	1.40%	4.57%	5.97%	42.26	4.17	13.79%	11.23%	25.01%
1985	211.28	7.90	26.33%	4.72%	31.06%	48.82	4.20	15.52%	9.94%	25.46%
1986	242.17	8.28	14.62%	3.92%	18.54%	58.31	4.26	19.44%	8.73%	28.16%
1987	247.08	8.81	2.03%	3.64%	5.67%	49.78	4.37	-14.63%	7.49%	-7.13%
1988	277.72	9.73	12.40%	3.94%	16.34%	53.87	4.40	8.22%	8.84%	17.06%
1989	353.40	11.05	27.25%	3.98%	31.23%	66.55	4.53	23.54%	8.41%	31.95%
1990	330.32	12.10	-6.53%	3.42%	-3.11%	63.47	4.48	-4.63%	6.73%	2.10%
1991	417.09	12.20	26.27%	3.69%	29.96%	77.25	4.64	21.71%	7.31%	29.02%
1992	435.71	12.38	4.46%	2.97%	7.43%	76.78	4.70	-0.61%	6.08%	5.48%
1993	466.45	12.58	7.06%	2.89%	9.94%	81.71	4.74	6.42%	6.17%	12.59%
Average annual returns										
1974-93					13.71%	15.23%				
1984-93					15.30%	16.97%				
1989-93					15.09%	16.23%				

Source: S&P

Betas for MC Comparable Companies

Company	Beta	Individual Ownership	Institutional Ownership
DEW	0.70	76.5%	23.5%
D	0.75	64.3%	35.7%
FPC	0.65	62.7%	37.3%
FPL	0.80	50.0%	50.0%
PPL	0.75	71.9%	28.1%
SCG	0.75	55.1%	44.9%
SO	0.70	72.2%	27.8%
UEP	0.70	68.7%	31.3%
Avg.	0.73	65.2%	34.8%
KLT	0.80	75.0%	25.0%
WR	0.65	63.7%	36.3%
MC	0.70	67.7%	32.3%

Adjusted Beta

1. Individual Ownership %
2. Under-Diversified 40% (Row 1 times 40%)
3. Under-Diversified Beta
4. Under-Diversified Adj'ted Beta (Row 3 times Row 4)
5. Diversified Investor % (100% less Row 2)
6. Value Line Beta
7. Diversified Adj'ted Beta (Row 5 times Row 6)
8. Total Adjusted Beta (Row 4 plus Row 7)

MC	
Comps	MC
65.2%	67.7%
26.1%	27.1%
1.00	1.00
0.26	0.27
73.9%	72.9%
0.73	0.70
0.54	0.51
0.80	0.78

Source: Value Line

**Expected or Required Total Returns for the
Value Line Composite and S&P 500 Composite**

Value Line Composite

Expected Growth

Earnings	15.8%
Dividends	6.5%
Average	11.2%

Current Yield on DPS1	1.8%
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Required Return	13.0%
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S&P 500 Composite

Expected Growth

Earnings	13.0%
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Current Yield on DPS1	2.0%
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Required Return	15.0%
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Sources: Value Line, IBES, Standard & Poor's

Daily Closing Price for the S&P 500 Composite

	S&P 500
26-Mar-97	790.500
27-Mar-97	773.880
31-Mar-97	757.120
01-Apr-97	759.640
02-Apr-97	750.110
03-Apr-97	750.320
04-Apr-97	757.900
07-Apr-97	762.130
08-Apr-97	766.120
09-Apr-97	760.600
10-Apr-97	758.340
11-Apr-97	737.650
14-Apr-97	743.730
15-Apr-97	754.720
16-Apr-97	763.530
17-Apr-97	761.770
18-Apr-97	766.340
21-Apr-97	760.370
22-Apr-97	774.610
23-Apr-97	773.640
24-Apr-97	771.180
25-Apr-97	765.370
Average	761.799

Source: PaineWebber

Schedule CAB-15

CAPM Cost of Common Stock for MC Comparable Companies

	MC Comps	MC
Historical Tests		
Ibbotson Associates, Long-Term Historical Total Return Premium	7.3%	7.3%
Comparable Companies' and MC's Beta	0.80	0.78
Equity Risk Premium	5.8%	5.7%
Yield on 30 Year U.S. Treasury Bonds	7.1%	7.1%
Comparable Company's Required Return	12.9%	12.8%
 Ibbotson Associates, Long-Term, Historical Yield Risk Premium	 7.5%	 7.5%
Comparable Companies' and MC's Beta	0.80	0.78
Equity Risk Premium	6.0%	5.9%
Yield on 30 Year U.S. Treasury Bonds	7.1%	7.1%
Comparable Company's Required Return	13.1%	13.0%
 Projected Tests		
Value Line Indicated Total Return (Growth plus Yield)	13.0%	13.0%
Yield on 30 Year U.S. Treasury Bonds	7.1%	7.1%
Market Equity Risk Premium	5.9%	5.9%
Comparable Companies and MC's Beta	0.80	0.78
Equity Risk Premium	4.7%	4.6%
Yield on 30 Year U.S. Treasury Bonds	7.1%	7.1%
Comparable Company's Required Return	11.8%	11.7%
 S&P 500 Indicated Total Return (Growth plus Yield)	 15.0%	 15.0%
Yield on 30 Year U.S. Treasury Bonds	7.1%	7.1%
Market Equity Risk Premium	7.9%	7.9%
Comparable Companies and MC's Beta	0.80	0.78
Equity Risk Premium	6.3%	6.2%
Yield on 30 Year U.S. Treasury Bonds	7.1%	7.1%
Comparable Company's Required Return	13.4%	13.3%
 Average of All CAPM Tests	12.8%	12.7%

Sources: Value Line, IBES, S&P

**Expected Return on Year-End Common Stock Equity for
MC Comparable Companies**

Company	1997	1998	2000-02
DEW	11.0%	11.0%	11.5%
D	10.5%	10.5%	11.5%
FPC	12.5%	12.0%	11.5%
FPL	13.0%	13.0%	13.0%
PPL	11.5%	12.0%	11.5%
SCG	12.5%	12.5%	13.0%
SO	11.5%	12.5%	13.0%
UEP	13.0%	12.5%	12.5%
Avg.	11.9%	12.0%	12.2%
KLT	14.0%	14.0%	14.0%
WR(1)	12.0%	12.0%	11.5%
MC(2)	12.7%	12.7%	12.4%

(1) About 12% after acquisition premium
adjustment

(2) .35KLT + .65WR

Source: Value Line

Comparison of the Allowed and Achievable Return to Investors Using the Standard DCF Model

Standard DCF Model Investor Required Return

Price	\$35.00
Book Value	\$25.00
ROE	12.5%
EPS	\$3.13
DPS	\$2.50
Dividend Payout	80.00%
Retention Rate	20.00%
Sustainable Growth Rate	2.50%
Current Yield	7.14%
Market Return to Investors	9.64%

Achievable Investor Return with Standard DCF Model Investor Required Return

Book Value	\$25.00
ROE	9.6%
EPS	\$2.41
DPS	\$2.50
Dividend Payout Ratio	103.73%
Retention Rate	-3.73%
Sustainable Growth Rate	-0.36%
Current Yield	7.14%
Market Return to Investors	6.78%

Sustainable Return to Investors with a Constant -0.4% Growth Rate

	Base Year	Base Plus 1	Base Plus 2	Base Plus 3	Growth Rate
Price	\$35.00	\$34.87	\$34.75	\$34.62	-0.4%
Book Value	\$25.00	\$24.91	\$24.82	\$24.73	-0.4%
ROE	9.6%	9.6%	9.6%	9.6%	
EPS	\$2.41	\$2.40	\$2.39	\$2.38	-0.4%
DPS	\$2.50	\$2.49	\$2.48	\$2.47	-0.4%
Dividend Payout Ratio	103.7%	103.7%	103.7%	103.7%	
Retention Rate	-3.7%	-3.7%	-3.7%	-3.7%	
Sustainable Growth Rate	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%
Current Yield	7.1%	7.1%	7.1%	7.1%	
Market Return to Investors	6.8%	6.8%	6.8%	6.8%	

**DCF Model Underestimation of Actual Market Returns
for 32 Electric Power Companies, 1980-94, 1987-91,
and 1983-94, and a Comparison of the Relative Accuracy
of the DCF and ERP Models, 1983-94**

	1	2	3	4	5	6
Company Stock Symbol	1980-94 Mkt Retn Less DPS DCF Retn	1980-94 Mkt Retn Less EPS DCF Retn	1987-91 Mkt Retn Less DPS DCF Retn	1987-91 Mkt Retn Less EPS DCF Retn	1983-94 Mkt Retn Less DCF Retn	1983-94 Mkt Retn Less ERP Retn
	DCF	DCF	DCF	DCF	DCF	ERP
AYP	4.6%	4.5%	-2.5%	-2.1%	2.4%	-0.6%
AEP	3.0%	1.1%	3.3%	2.4%	4.3%	0.2%
BGE	4.0%	3.9%	-4.1%	-2.6%	3.6%	0.7%
CPL	3.9%	4.3%	4.5%	4.5%	5.1%	1.6%
CSR	3.5%	3.9%	4.5%	5.4%	3.7%	2.0%
ED	3.1%	7.2%	-1.8%	2.2%	1.6%	1.7%
DPL	6.1%	5.6%	6.5%	6.7%	6.4%	4.0%
DTE	3.4%	4.4%	17.3%	18.5%	4.5%	1.7%
D	5.1%	4.9%	1.5%	1.3%	4.6%	1.9%
DUK	5.4%	5.2%	4.5%	4.2%	5.7%	2.7%
FPL	2.2%	3.3%	0.1%	0.0%	2.0%	-0.9%
FPC	3.8%	3.9%	0.0%	0.5%	3.9%	1.0%
HOU	-0.2%	-0.6%	3.2%	3.9%	2.4%	0.4%
NES	3.7%	4.4%	0.5%	2.0%	2.4%	0.0%
NU	3.4%	2.3%	-3.2%	-1.4%	2.3%	0.1%
NSP	5.0%	5.6%	0.4%	2.5%	4.8%	2.4%
OGE	3.8%	2.9%	1.1%	1.0%	2.0%	-1.8%
PPW	2.1%	0.8%	4.5%	3.6%	2.4%	-1.9%
PPL	3.2%	3.3%	5.2%	3.8%	3.0%	-0.5%
POM	3.4%	3.5%	-5.9%	-5.7%	1.4%	0.4%
PSR	3.0%	1.2%	6.3%	5.1%	2.5%	-1.1%
PEG	2.1%	2.1%	-0.5%	-0.3%	2.3%	-0.9%
PSD	1.5%	0.5%	6.1%	5.0%	2.3%	-2.1%
SCE	1.6%	2.4%	3.5%	4.0%	0.8%	-1.6%
SDO	4.0%	4.2%	3.1%	4.9%	3.5%	0.8%
SCG	4.9%	4.5%	1.9%	1.6%	5.3%	1.8%
SO	6.4%	5.2%	5.4%	6.0%	5.9%	2.4%
SPS	2.4%	2.5%	0.1%	0.2%	1.2%	-2.2%
TE	4.3%	5.0%	7.1%	7.8%	6.2%	4.0%
TXU	-0.3%	0.6%	3.2%	5.2%	-0.9%	-2.7%
UEP	5.5%	5.9%	4.4%	5.3%	6.1%	3.2%
WEC	5.3%	6.6%	2.5%	4.8%	4.4%	3.1%
Average	3.5%	3.6%	2.6%	3.1%	3.4%	0.6%
Std Dev	1.6%	1.9%	4.1%	4.0%	1.8%	1.8%

Sources: Value Line, Compustat, and DRI

Schedule CAB-19

Representative Prices for the Merged Company's Comparable Companies

	DEW	D	FPC	FPL	PPL	SCG	SO	UEP	KLT	WR
26-Mar-97	\$18.75	\$36.88	\$30.38	\$44.63	\$20.13	\$25.50	\$21.50	\$37.13	\$28.38	\$31.13
27-Mar-97	18.63	36.00	30.63	44.25	20.25	25.50	21.00	36.75	28.25	30.63
31-Mar-97	18.38	36.38	30.38	44.13	20.25	25.38	21.13	36.88	28.00	30.00
01-Apr-97	18.50	36.00	30.38	43.88	20.00	25.63	21.38	36.88	27.88	30.63
02-Apr-97	18.63	35.75	30.38	43.88	20.25	25.38	21.50	36.63	27.88	30.38
03-Apr-97	18.38	35.63	30.38	43.88	20.25	25.00	21.38	36.63	27.88	30.25
04-Apr-97	18.50	35.13	30.38	43.75	19.88	25.00	21.38	36.38	27.75	30.25
07-Apr-97	18.50	35.13	30.38	43.63	19.75	25.00	21.50	36.25	27.63	30.00
08-Apr-97	18.00	34.75	30.50	43.88	19.63	24.63	21.13	36.38	27.88	29.88
09-Apr-97	18.13	34.88	30.50	43.50	19.63	24.50	21.00	35.88	27.75	30.00
10-Apr-97	17.88	35.25	30.50	43.88	19.38	24.63	21.25	36.13	27.75	30.25
11-Apr-97	17.63	34.75	30.63	43.13	19.25	24.38	20.88	35.50	27.50	30.13
14-Apr-97	17.38	34.25	30.50	43.00	19.13	24.25	20.88	35.38	27.50	29.88
15-Apr-97	17.38	34.50	30.25	43.38	19.25	24.38	21.13	35.38	27.63	30.00
16-Apr-97	17.38	34.50	30.38	43.88	19.25	24.50	21.13	35.13	27.50	29.75
17-Apr-97	17.63	34.50	30.38	43.63	19.00	24.63	21.25	35.13	27.63	30.13
18-Apr-97	17.50	34.75	30.38	43.75	19.38	24.88	21.25	35.25	27.75	30.50
21-Apr-97	17.50	34.38	30.50	43.25	19.25	24.63	20.88	35.00	27.63	30.38
22-Apr-97	17.38	34.50	30.50	43.88	19.13	24.75	21.00	35.25	27.75	30.38
23-Apr-97	17.38	34.38	30.50	43.75	19.38	24.25	20.63	35.25	27.75	30.13
24-Apr-97	17.25	33.50	30.50	43.38	19.38	23.88	20.00	34.75	27.88	30.00
25-Apr-97	17.13	33.38	30.50	43.38	19.13	23.63	20.25	34.75	27.63	29.88
Average	17.90	34.96	30.44	43.71	19.59	24.74	21.06	35.85	27.78	30.21

Source: Compustat/PaineWebber

First Holding Year Dividend for MC's Comparable Companies

Company	Q2'97	Q3'97	Q4'97	Q1'98	DPS1	Growth Rate
	\$	\$	\$	\$	\$	
DEW	0.39	0.39	0.39	0.39	1.56	1.5%
D	0.665	0.665	0.665	0.665	2.66	3.3%
FPC	0.525	0.525	0.525	0.54	2.12	2.9%
FPL	0.48	0.48	0.48	0.5	1.94	3.8%
PPL	0.425	0.425	0.425	0.425	1.70	1.8%
SCG	0.3775	0.3775	0.3775	0.3775	1.51	4.1%
SO	0.325	0.325	0.325	0.34	1.32	3.9%
UEP	0.635	0.635	0.65	0.65	2.57	2.1%
KLT	0.405	0.42	0.42	0.42	1.67	3.3%
WR	0.525	0.525	0.525	0.525	2.10	2.5%
MC	0.4830	0.4883	0.4883	0.4883	1.95	2.8%

Sources: Value Line and IBES

**Projected Growth Rates for MC
Comparable Companies**
(Percentages)

Company	Value Line		Average VL Proj	Projected IBES Growth	Average Proj'd Gwth IBES and VL
	Proj 5 Yr EPS Gwth	Proj 5 Yr DPS Gwth			
DEW	2.0%	0.0%	1.0%	2.0%	1.5%
D	5.5%	1.0%	3.3%	3.3%	3.3%
FPC	3.0%	2.0%	2.5%	3.3%	2.9%
FPL	4.5%	1.0%	2.8%	4.9%	3.8%
PPL	2.5%	0.0%	1.3%	2.3%	1.8%
SCG	5.5%	2.5%	4.0%	4.1%	4.1%
SO	5.5%	3.0%	4.3%	3.6%	3.9%
UEP	1.5%	1.5%	1.5%	2.6%	2.1%
KLT	4.5%	2.5%	3.5%	3.1%	3.3%
WR	2.0%	2.0%	2.0%	3.0%	2.5%
MC(1)	2.9%	2.2%	2.5%	3.0%	2.8%

(1) .35KLT + .65WR

Sources: Value Line and IBES

Standard DCF Cost of Common Stock for MC Comparable Companies

Company	DPS1(\$)	Price(\$)	Yield	Yld with Flo. Costs	Proj. Gwth.	Proj. DCF
DEW	1.56	17.90	8.72%	9.08%	1.5%	10.6%
D	2.66	34.96	7.61%	7.93%	3.3%	11.2%
FPC	2.12	30.44	6.95%	7.24%	2.9%	10.1%
FPL	1.94	43.71	4.44%	4.62%	3.8%	8.4%
PPL	1.70	19.59	8.68%	9.04%	1.8%	10.8%
SCG	1.51	24.74	6.10%	6.36%	4.1%	10.5%
SO	1.32	21.06	6.24%	6.50%	3.9%	10.4%
UEP	2.57	35.85	7.17%	7.47%	2.1%	9.6%
Avg.	1.92	28.53	6.99%	7.28%	2.9%	10.2%
KLT	1.67	27.78	6.01%	6.26%	3.3%	9.6%
WR	2.10	30.21	6.95%	7.24%	2.5%	9.7%
MC(1)	1.95	29.36	6.62%	6.90%	2.8%	9.7%

Issuance Cost Adjustment	Comps	MC
Yield with Issuance Costs	7.28%	6.90%
Yield	6.99%	6.62%
Issuance Cost Adjustment	0.29%	0.28%

(1) .35KLT + .65WR

Sources: Value Line, IBES, and CompuServe

End Result DCF Test for MC Comparable Companies

Standard DCF Model Results

	MC Comp Co's	MC
1996 Book Value	\$20.08	\$19.14
Allowed ROE	10.2%	9.7%
Earnings Per Share	\$2.05	\$1.86
Dividend Per Share	\$1.92	\$1.95
Dividend Payout	93.74%	105.03%
Retention Rate	6.26%	-5.03%
Sustainable Growth Rate	0.64%	-0.49%
Current Yield	7.28%	6.90%
Market Return to Investors	7.9%	6.4%

Annual DCF Necessary Return on Equity for Investors to Earn Required Market Return

	MC Comp Co's	MC
1996 Book Value	\$20.08	\$19.14
Allowed ROE	12.5%	13.0%
EPS	\$2.51	\$2.49
Dividend Per Share	\$1.92	\$1.95
Dividend Payout Ratio	76.49%	78.37%
Retention Rate	23.51%	21.63%
Sustainable Growth Rate	2.94%	2.81%
Current Yield	7.28%	6.90%
Market Return to Investors	10.2%	9.7%

Source: Value Line, IBES, Compuserve

ISSUANCE COSTS

Flotation, or issuance, costs are those costs incurred in the issuance of new common stock, and take the form of underwriter's compensation and other related expenses. An adjustment for these costs is necessary in determining the cost of common stock if investors are to earn the return on common stock equity found fair by the Commission. It is also a necessary adjustment even if new common stock is not sold.

Because of issuance costs, net proceeds to the company from the sale of common stock are less than invested by investors. Therefore, issuance costs not recovered as expenses in the ratemaking sense result in a permanent reduction in common stock equity of the company. A fair return applied to the lower than invested common stock equity by investors necessarily results in a lower return to investors than found to be required by regulators.

Bond Example

When evaluating the need for an adjustment for common stock issuance costs, it is instructive to note the treatment given to expenses incurred with a debt issuance. The true cost of debt, issued at par, is greater than its coupon interest rate because of the cost incurred in issuing the bonds. For example, if a company sold \$100 million of debt at par with a 10.0% rate of interest and received proceeds of \$97 million, the cost to the company is not 10.0%, but is 10.3%. The cost is higher than 10.0% because proceeds to the company were less than the amount of debt issued due to issuance costs. The higher cost reflects recovery of issuance costs over the life of the bond, irrespective of whether additional new debt is, or is not, sold.

Perpetual Preferred Stock Example

A similar adjustment is necessary to determine the cost of perpetual preferred stock. For example, if a company issued \$100 million of perpetual preferred stock at par with an 8.50% dividend rate, but only received proceeds after issuance costs of \$97.5 million, the cost to the company is 8.72%, not 8.50%. In this case, the preferred stock has a perpetual term that is the same as for common stock.

Common Stock Example

Common stock requires the same adjustment as for perpetual preferred stock and for bonds. After paying issuance costs, net proceeds to the company are less than the total investment by investors. The net proceeds must earn at a higher rate of return in order to provide the intended return to investors on the full amount of their investment.

A simple example, which is part of this exhibit, shows that a permanent adjustment for flotation costs is necessary even if new common stock is not sold. Assume, for example,

1. The company issued \$100 million of common stock.
2. The cost of common stock was 13.0% with a 4.5% growth rate and an 8.5% yield. The cost of common stock determined by regulators was 13.0%.
3. Issuance costs were 4.0%.

ISSUANCE COSTS

4. No additional common stock was sold.

After issuance costs, proceeds from the \$100 million common stock sale would be \$96.0 million. Therefore, the common equity added to the company's balance sheet is \$96.0 million. The example in the table accompanying this exhibit shows that an allowed return of 13.35% on the reduced (after issuance costs) common stock equity balance is required in order for investors to earn on their investment the 13.0% cost of common stock.

The formula to equate the cost of common stock to the return necessary after issuance costs is to divide the yield on the twelve-month forward dividend by 1.0% less issuance costs.

Important Note

It is important to note that the 13.35% return is required in each year, and even if new common stock is not sold.

KEY TO ISSUANCE COST EXAMPLE

A: Common Equity	$(1.0 - .04 \text{ issuance costs}) \times \$100 \text{ million in new equity equals } \96 million
B: Retained Earnings	Prior year's earnings - prior year's dividends (Column E) - (Column G X Column H)
C: Total Equity	Prior year's equity + current year's retained earning (prior year's Column C + Column B)
D. Required ROE	Dividend yield divided by $1.0 - \text{issuance costs}$ plus growth rate $((8.5\%/1.0 - .04) + 4.5\%) = 13.35\%$
E. Current Earnings	Total equity X required return (Column C) X (Column D), \$96 million X 13.35% = 12.82 million
F. Payout Ratio	$1 - (\text{Growth required/required ROE})$ $1 - (.045/.1335) = 66.3\%$
G. Common Shares	Total equity invested by investors/par value $\$100 \text{ million}/\$10 = 10 \text{ million}$
H. Div. Per Share	Earnings X payout ratio/shares of common (Column E) X (Column F) / (Column G) $(\$12.82 \times 66.3\%) / 10 \text{ million shares} = \0.85
I. Dividend Yield	Dividends per share/ share price $(\$0.85 / \$10.00) = 8.5\%$
J. Share Price	Dividends per share / (required return - growth rate) $\$0.85 / (0.13 - .045) = \10.00
K. Price Change	Year to year percentage change in price $(\$10.45 - \$10.00) / \$10.00 = 4.5\%$
L. Investor Return	Dividend yield + share price appreciation (Column I) + (Column K) $8.50\% + 4.5\% = 13.0\%$

**Issuance Costs Are a Necessary Adjustment to the Cost of
Common Stock in Order That Investors Can Earn Their
Required Return**

Column	A	B	C	D	E	F
Year	Common Equity	Retained Earn's Prev Yr	Total Com. Eq.	Required ROE	Current Earnings	Payout Ratio
	\$MM	\$MM	\$MM	%	\$MM	%
0	96.00		96.00	0.1335	12.82	0.663
1	96.00	0.00	96.00	0.1335	12.82	0.663
2	96.00	0.00	96.00	0.1335	12.82	0.663
3	96.00	0.00	96.00	0.1335	12.82	0.663
4	96.00	0.00	96.00	0.1335	12.82	0.663
5	96.00	0.00	96.00	0.1335	12.82	0.663

Column	G	H	I	J	K	L
Year	Common Shares	Dividends Per Share	Dividend Yield	Share Price	Price Change	Total Return
	(MM)	\$	%	\$	%	%
0	10	0.850	8.5%	10.00		
1	10	0.850	8.1%	10.45	4.5%	12.6%
2	10	0.850	7.8%	10.92	4.5%	12.3%
3	10	0.850	7.4%	11.41	4.5%	11.9%
4	10	0.850	7.1%	11.92	4.5%	11.6%
5	10	0.850	6.8%	12.46	4.5%	11.3%

**Historical Senior Debt Downgrades
1977 - September, 1991 by Standard & Poor's**

Company	From:	To:	Month/Yr.	Month/Yr.
Cincinnati G&E	AA	BBB	Sep-79	Apr-83
Cleveland Electric	AA-	BBB-	Jul-81	Oct-84
Commonwealth Edison	AA	BBB-	Jun-80	Mar-82
El Paso Electric	AA-	BBB+	Apr-81	Oct-84
Gulf States Utilities	AA	BBB	Jan-77	Feb-82
Houston Lighting & Power	AA	BBB+	Nov-81	Mar-89
Illinois Power	AA-	BBB+	Feb-83	Dec-86
Kansas City P&L	AA	BBB	Jul-77	Aug-82
Kansas Gas & Elect	AA-	BBB	Jul-78	Mar-80
Montana Power	AA	BBB-	Mar-77	Aug-84
Northern Indiana Public Service	AA-	BBB+	Sep-81	Jan-83
Public Service of Colorado	AA-	BBB+	Feb-80	Dec-86
PSI Energy	AA	BBB+	Nov-81	Aug-82
Public Svc. of New Mexico	AA	BBB+	Oct-82	Jan-86
Texas Utilities Electric	AA	BBB+	Apr-85	Dec-86

Source: The Duff & Phelps Fixed Income Research Digest,
September, 1991

Financial Integrity Test for Merged Company Based on Pro-Forma 1996 Results

S&P Financial Benchmarks for Business Position 4 Company by Bond Rating

	AA	A	BBB	BB
S&P Pretax interest Coverage, Times Merged Company, 1996	4.00	3.50 3.03	2.50	1.75
S&P Funds from Operations Interest Coverage, Time Merged Company, 1996	4.50	4.00	3.00 3.26	2.00
S&P Funds from Operations to Total Debt Merged Company, 1996	32.0%	25.0%	19.0%	13.0% 13.9%
S&P Total Debt to Total Capital Merged Company, 1996	42.0%	47.0%	54.0%	60.0% 58.5%
S&P Net Cash Flow to Capital Spending	110.0% 101.9%	85.0%	60.0%	40.0%
Fair Return on Common Stock Equity	12.9%	12.9%	12.9%	12.9%

Sources: S&P, Western Resources

Summary of Tests to Determine the Cost of Common Stock for the Merged Company

Tests	MC Comparables' Common Stock Cost
1. Equity Risk Premium Model	13.5%
2. CAPM	
Historical Total Return	13.2%
Historical Income Return	13.4%
Expected Return with Value Line Composite	12.1%
Expected Return with S&P 500	13.7%
Average CAPM	13.1%
3. Comparable Earnings Test	12.2%
4. End-Result DCF Model, Projected Growth	12.5%
Range for All Tests	12.2% to 13.5%
Judgment Range After Adjusting for Higher MC Risk than for Comparable Companies, and Reduced Risk of Merged Company	12.25% to 13.5%
Recommended Cost of Common Stock Equity for the Merged Company	12.9%
5. Financial Integrity Test	At least 12.9%