BEFORE THE

STATE OF VERMONT

PUBLIC SERVICE BOARD

Investigation into Existing Rates of	**)**	
Central Vermont	**)**	**DOCKET NO.**
Public Service Corporation	**)**	**6946**
Central Vermont Public Service	**)**	
Corporation Request to Increase	**)**	**DOCKET NO.**
Rates by 5.01% to be Effective	**)**	**6988**
August 29, 2004	**)**	

DIRECT TESTIMONY OF

NEIL H. TALBOT AND AMY B. ROSCHELLE

ON BEHALF OF

AARP

October 1, 2004

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I. INTRODUCTION AND QUALIFICATIONS

I.A. NEIL TALBOT QUALIFICATIONS

Q. PLEASE STATE YOUR NAME, OCCUPATION AND ADDRESS.

A. My name is Neil H. Talbot. I am an economic and financial consultant affiliated with Synapse Energy Economics, Inc. Our business address is 22 Pearl Street, Cambridge MA 02139.

Q. WHAT ARE YOUR EDUCATIONAL QUALIFICATIONS?

A. In addition to earlier degrees in government and law from the University of Cape Town, South Africa, I obtained a master's degree in economics from Cambridge University, England in 1972, and a Master of Science in Finance (MSF) degree from Boston College in 1992.

Q. PLEASE OUTLINE YOUR WORK EXPERIENCE.

A. I was employed as an economist by consulting companies for a period of 26 years. From 1968 to 1972 I worked with the Economist Intelligence Unit, London; from 1973 to 1979 with Arthur D. Little, Inc., Cambridge, MA; and from 1980 to 1994 with Tellus Institute (formerly Energy Systems Research Group), Boston, MA. In 2000, I became affiliated with Synapse Energy Economics, Inc, after a period as an independent consultant.

Q. PLEASE OUTLINE YOUR EXPERIENCE WITH UTILITY CASES SUCH AS THE PRESENT PROCEEDING.

A. Since 1973, my consulting work has focused on electric utility planning, rates, regulation and finance, and for the past several years, I have concentrated on

issues related to the restructuring of the electric industry. As will be readily apparent from a review of my professional biography attached as Exhibit___(NHT-1), I have testified in many utility regulatory proceedings and I have testified on rate of return and financial matters in a number of cases. In July 2003 I filed direct and supplemental testimony on rate of return for Empire District Electric Company before the Oklahoma Corporation Commission. In November 2003 I filed testimony before the Board in Docket No. 6866 on CVPS's cost of capital . Earlier this year, I testified before the Texas Public Utilities Commission on the effect of a company's capital structure on its cost of capital, and the magnitude of a "control premium" on stock valuation.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?

A. I am testifying on behalf of AARP.

I.B. AMY ROSCHELLE QUALIFICATIONS

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND OCCUPATION.

A. My name is Amy Roschelle. I am employed by Synapse Energy Economics, Inc., 22 Pearl Street, Cambridge, Massachusetts, 02139. Synapse Energy Economics is a research and consulting firm specializing in electricity industry regulation, planning and analysis. Synapse works for a variety of clients, with an emphasis on consumer advocates, regulatory commissions, and environmental advocates.

Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE.

A. I hold an MBA from the MIT Sloan School of Management, a Master of Science in Engineering from UCLA, and a Bachelor of Science from the Massachusetts Institute of Technology.

Prior to completing business school in 2000, I worked for the Gillette Company for three years as a Process and Product Engineer. After completing business school, I worked briefly for a startup company called GreenFuel in an operations role. I then joined the technology transfer arm of the Massachusetts General Hospital, where I focused on technology strategy, grant writing, and product development initiatives. In May 2003, I joined Synapse Energy Economics. Since that date, I have worked on issues relating to economic analysis and environmental impact of technologies and policies, power plant valuation, utility resource planning and portfolio management, financial analysis, evaluation of water use and air emissions of electricity generation, and other topics including marketing/business development, project management, consumer advocacy, and technology strategy within the energy industry.

Q. PLEASE OUTLINE YOUR EXPERIENCE WITH UTILITY CASES.

A. I performed much of the quantitative analysis that was used to determine the return on equity for CVPS in last year's CVPS Memorandum of Understanding filing by AARP (Docket No. 6866). I have also testified this year for the Union of Concerned Scientists with regard to financial planning and debt equivalency

issues and helped prepare testimony in the recent Texas Centerpoint Case dealing with capital structure and and other financial issues.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?

A. I am testifying on behalf of the AARP.

I.C. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS CASE?

A. Our testimony addresses the proposed allowed return on equity for CVPS and the appropriate rate of amortization of regulatory assets.

Q. PLEASE EXPLAIN HOW YOUR TESTIMONY IS ORGANIZED.

A. Section II presents a summary of the points made in our testimony; Section III covers estimates of the Company's cost of capital; Section IV addresses the amortization of regulatory assets; and Section V contains conclusions and recommendations.

II. SUMMARY AND RECOMMENDATIONS

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. The major points made in our testimony are the following:

1. We are proposing two adjustments to the Company's request for a 5.01% rate increase – a reduction in the Company's requested rate of return on common equity (ROE) from 11% to 10%, and an extension of the proposed amortization period for regulatory assets.

2. The requested return on equity of 11% is higher than the level warranted by the Company's cost of common equity, which we estimate at 10.0%.

3. Our primary approach in developing a cost estimate for common equity capital for CVPS is the DCF method applied to a group of five electric utilities that are similar to CVPS and include CVPS itself. While some of these companies, considered individually, appear to be more or less risky than CVPS, as a group they have risk characteristics that are, considered collectively, closely comparable to those of CVPS. They are all small cap electric utility companies as defined by Value line. They all have positive earnings and dividends forecasts according to Value Line. The DCF cost of equity estimate for the group based on the Value Line forecasts is 9.3%.

4. Our secondary DCF approach involved adding to our comparable group those Value Line electric utility companies that are rated as smaller mid-cap (market capitalization between $1 billion and $2 billion) and which

satisfy the criteria of positive earnings and dividends forecasts according to Value Line. This approach led to the inclusion of 2 more companies (Vectren and WPS resources,) bringing the total comparable group to 7. Using this approach led to a very similar and reasonable ROE result of 9.5%.

5. As a check, we applied the Capital Asset Pricing Model (CAPM) to both sets of comparable groups. Our CAPM analysis produced an estimate of 9.57% for the small cap companies and 9.88% for the enlarged group including Vectren and WPS resources. While the interest rate component of the CAPM analysis reflects current conditions, the risk premium component is based on long-term risk premiums of stocks over bonds and varies from time to time. Accordingly, we regard the CAPM-derived estimates as less reliable than the DCF results. In this instance, the CAPM analysis indicates an ROE of 9.57 to 9.88%.

6. Long-term and short-term U.S. interest rates remain close to their lowest levels in over four decades. At this point, although it appears that the economy is experiencing a recovery, the pace of recovery is uncertain, and inflation is likely to remain subdued relative to historical rates. This indicates that the cost of long-term capital, including the cost of equity, will remain reasonably low.

7. The electric utility industry has been through a period of turmoil associated with partial deregulation and restructuring. Utilities like CVPS that are still regulated (and are likely to remain so for the time being) are,

however, relatively stable from an investor standpoint.

8. CVPS has been performing quite well over the last several years. CVPS ranked first in the country in the Edison Electric Institute's 2003 index for five-year shareholder returning, providing shareholders a 205% return. The index ranked the national's 64 publicly traded companies for the period of January 1, 1999 through December 31, 2003. The index includes changes in stock prices and dividend reinvestment.

9. In last year's Memorandum of Understanding, the Company and the DPS proposed an earnings cap of 10.5% on common equity. In its February 2004 order, the Board approved a 10.25% earnings cap for CVPS.

10. Authorized return on equity for electric utilities have been trending downwards over the last decade. A March 2004 study on rate cases by Lehman Brothers finds, "In 2003 the average allowed ROE in 16 decisions was 10.41% (not including the Wisconsin Energy decision which was an outlier at 12.7%.) We [Lehman Brothers] believe allowed ROEs will be in the 9.5% - 11% range in 2004."[1]

11. Responding to the Board's concern regarding a build-up of deferred expenses in the form of "regulatory assets" for future recovery from ratepayers, CVPS has proposed that most of its regulatory assets be recovered over a three-year period. In our opinion, this proposal goes to the other extreme and would result in a burdensome increase in rates. CVPS's rates are already among the highest in the region, and we believe

the Board should not raise them by a further 5.01% at this time. Specifically, CVPS's total retail rates for the years 2001 and 2002, as compiled by the Edison Electric Institute, average 11.75 and 11.95 cents/kilowatthour, respectively. In the same periods, New England states averaged 10.37 and 9.96 cents/kilowatthour, while the US averaged 7.31 and 7.32 cents/kilowatthour.[2] (TO BE UPDATED IN LIGHT OF ANDERSON DATA)

Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS.

A. We recommend that, by reducing CVPS's allowed ROE to 10%, doubling the recovery period for most of the Company's regulatory assets to six years, and perhaps making other appropriate adjustments, the Board hold the Company's rate increase below the level of general inflation, which is about 3%.

[1] Ford, Daniel and Nahla Azmy, Po Cheng, Thomas O'Neill, Gregg Orrill, " They're Back! Twenty-Six Rate Cases This Year Give Rise to the Regulators, " Lehman Brothers, March 5, 2004.
[2] EEI Typical Bills and Average Rates Report, Winter 2003.

III. COST OF EQUITY ANALYSIS

III.A DCF Analysis

Methodology

Q. PLEASE OUTLINE THE DCF APPROACH YOU USED.

A. The Discounted Cash Flow (DCF) method estimates the return required from an investment in common stocks by finding the rate of return or discount rate that is implied by the current price of the stock and the dividends expected to be paid by the stock. For example, if an investor is willing to pay $100 for a stock paying a dividend of $10 per year in perpetuity, then the required return that is implied by the relationship between the price and the dividend stream is 10%. In this example, the *dividend yield* of 10% is all that needs to be considered; in practice, dividends tend to increase over time and it is necessary to add a term to the DCF equation to account for the *growth* of dividends in the future. Where a constant growth rate is assumed, the formula for the DCF calculation is:

$$k = D_1/P_0 + g$$

where

k is the required return;

D_1 is the dividend in the next year;

P_0 is the current price of the stock; and

g is the growth rate.

This formula boils down to the addition of the current dividend yield (adjusted for one year's expected growth of dividends) and the growth rate.

Selection of a Risk-Comparable Group of Companies

Q. DID YOU APPLY THE DCF METHOD TO CVPS ITSELF OR TO A GROUP OF COMPANIES?

A. It is certainly possible to apply the method directly and only to the company in question. For statistical reasons, however, it is preferable to place reliance on an analysis of a group of comparable companies. The data for any one company may contain random elements or "noise," which tend to be averaged out in the data for a group of companies.

Q. WHICH COMPANIES DID YOU SELECT?

A. The guiding criterion in the selection process is to find a group of companies that have similar risk profiles to that of CVPS. We believe that investors take into account both quantitative and qualitative considerations when assessing the risks of companies. Importantly, we draw a distinction between regulated and non-regulated companies. While some regulated companies may have similar quantitative profiles to those of some non-regulated companies, investors rightly believe that the regulated monopoly context provides a safety net for a regulated company that does not apply to other companies. A simple example makes this point: a non-regulated company has no protection against "bypass" by other suppliers, and customers often switch back and forth between competitive suppliers, while a regulated company like CVPS does not face the likelihood of retail competition. Likewise, a non-regulated company has no such thing as an "allowed rate of return," while a regulated utility can request a rate increase if its return falls below a cost of capital benchmark. Distinctions between industries are recognized by investment services, which usually present their discussions of

stocks on an industry-by-industry basis and commence the analysis of the stocks in each industry by discussing the general situation of that industry. For these reasons, we selected a group of *electric utility companies* only.

Q. FROM WHICH SOURCE DID YOU SELECT THESE COMPANIES?

A. We selected companies from Value Line's list of electric utilities.

Q. WHAT KINDS OF RISKS ARE IDENTIFIED BY INVESTORS?

A. By risk, investors are primarily concerned about the possibility of losing money, *i.e.*, the chance of suffering a loss. More generally, however, risk can be defined as the uncertainty or variability of a security's returns. A risk-free security is one that has fixed or certain returns, while a risky security has uncertain returns. The variability of common stock returns reflects both the *business risk* facing the company as a whole, and the additional *financial risk* resulting from the company's degree of debt leverage.

Q. DID RISK CONSIDERATIONS LEAD YOU TO SELECT A SUB-GROUP OF THE VALUE LINE ELECTRIC UTILITY COMPANIES RATHER THAN THE WHOLE GROUP?

A. Yes. There is evidence that investors regard smaller company stocks as more risky and therefore require higher rates of return from investments in smaller companies. This is, we believe, partly true of smaller electric utilities, even though they are regulated and relatively long-lived and low-risk when compared with other small companies, and tend to be larger than most small non-utility companies. We used as our "universe" of companies those electric utilities that are described as "Small Cap" by Value Line, which means that their market

capitalization is less than $1 billion. The Value Line Investment Survey lists 14 electric utility companies as Small Cap.

Q DID YOU APPLY ANY FURTHER SCREEN TO THESE SMALL CAP COMPANIES?

A. Yes. We eliminated those companies that did not have positive earnings and dividend growth according to Value Line. Since the DCF method requires projections of dividends (or earnings as a proxy for dividends), negative growth projections can be problematic. In this group of companies, nine of the fourteencompanies did not show positive dividends and earnings. This left five companies on our comparable company list. The list of Small Cap companies and the screening process is shown in Schedule 1 attached to our testimony.

Q. HOW DOES THIS ANALYSIS AND THIS GROUP OF COMPANIES COMPARE WITH THE GROUP YOU USED IN YOUR ANALYSIS LAST YEAR WITH REGARD TO THE MEMORANDUM OF UNDERSTANDING?

A. Our methodology to determine an appropriate ROE for CVPS is exactly identical to the one we utilized last year. However, three of the eight companies in the CVPS comparables group no longer meet our criteria. Black Hills Corporation no longer has positive expected earnings growth, CH Energy Group is no longer expected to have positive dividend growth, and Unisource Energy has been suspended due to a merger prospect. Thus, these three companies are no longer included in our CVPS comparable group. While we believe that it is appropriate to continue our analysis with the remaining companies, the group is rather small from a statistical standpoint. To enlarge our data set, we also examine the effect

of adding in smaller mid-cap electric utility companies later in this testimony.

Q. ARE THE SMALL-CAP COMPANIES COMPARABLE TO CVPS IN TERMS OF INVESTOR-PERCEIVED RISK?

A. Yes. Overall, taking all the measures into account, the risk indicators for the group are very similar to CVPS's. As shown in Schedule 2, CVPS is somewhat more risky than the average company according to interest coverage ratio and market capitalization. However, in terms of beta and Morningstar Financial Health index, CVPS is less risky than the comparable companies. On the other hand, in terms of Value Line "Safety" and Value Line "Financial Health," CVPS is the same as the comparable companies. While CVPS's debt ratio appears relatively low, rating agencies adjust it to reflect the fixed costs in the Company's long-term purchased power agreements.

Implementation of the DCF Approach

Q. WHAT SOURCES OF DATA DID YOU USE?

A. We obtained share prices for current and recent months from Yahoo Finance dated September 23, 2004 and current dividends from Value Line. As an estimator of dividend growth in the future, we used Value Line's five-year earnings forecasts contained in their July 2, August 13, and September 3, 2004 issues. A review of the dividends and earnings of our group of comparable companies showed that dividend payout, which averages 58%, is not excessive, implying that it should not be difficult for these utilities to sustain dividend increases in step with earnings increases, consistent with strengthening their balance sheets. Value Line predicts that as a group, these companies will increase

their dividends approximately in line with their earnings (See Schedule 4.)

Q. IN IMPLEMENTING THE DCF APPROACH, PLEASE EXPLAIN HOW YOU CALCULATED CURRENT DIVIDEND YIELD.

A. For each company, we obtained the latest quarterly dividend from Value Line dated July 2, August 13, and September 3, 2004. We annualized the dividend and projected it one year ahead to reflect a year's growth. We then averaged the latest current spot prices for the companies' stocks as of September 23, 2004, with the beginning-of-month prices for the four months May to August, 2004, i.e., we calculated the simple average of the five data points.

Q. PLEASE COMMENT ON YOUR USE OF AVERAGE STOCK PRICES FOR RECENT MONTHS RATHER THAN RELYING EXCLUSIVELY ON THE LATEST "SPOT" STOCK PRICES.

A. There has been considerable debate about this issue over the years. On the one hand, it is desirable to stabilize the stock price data by averaging over a period of time. On the other hand, it is useful to incorporate the up-to-date information contained in the latest spot price. In this case, the issue is moot since stock prices have been stable.

Q. PLEASE EXPLAIN HOW YOU ESTIMATED DIVIDEND GROWTH FOR THE SMALL CAP GROUP OF ELECTRIC UTILITIES.

A. As noted earlier, we used Value Line earnings forecasts as the best indicator of future dividend growth. As can be seen in Schedule 4, the earnings growth

projections average 5.2% per year.

Q. HOW DO THESE DIVIDEND YIELD AND GROWTH PROJECTIONS TRANSLATE TO YOUR SUGGESTED ROE?

A. Recall that the standard DCF formula is as follows:

$$k = D_1/P_0 + g$$

where

k is the required return;

D_1 is the dividend in the next year;

P_0 is the current price of the stock; and

g is the growth rate.

For the comparable group of companies, a summary calculation follows. Please see Schedule 5 for a more detailed calculation by company.

$D_1/P_0 = 0.99/24.08 = 0.04$ or 4.0%, which is the yield term. Calculation of yields by company and then averaging gives a more accurate 4.0%.

g = .052 or 5.2%, which is the growth term.

From the above, k = 0.040 + 0.052= 0.092 or 9.28 without rounding%.

Q. ARE FIVE COMPANIES ENOUGH TO MAKE A REASONABLE ROE CALCULATION USING THE DCF METHODOLOGY?

A. We believe that the five companies that we utilized are, as a group, representative of CVPS in terms of size and risk factors and yield a reasonable ROE calculation

for CVPS . However, we realize that an enlarged group might be preferable. To this end, we utilized a secondary approach to calculating an appropriate return on equity for CVPS under the DCF methodology.

Q. PLEASE DESCRIBE YOUR DCF CALCULATION USING AN ENLARGED GROUP OF COMPANIES.

A. Our secondary DCF approach involved adding to our comparables group those Value Line electric utility companies that are rated as smaller mid-cap (market capitalization between $1 billion and $2 billion) and which satisfy the criteria of positive earnings and dividends forecasts according to Value Line. This approach led to the inclusion of 2 more companies (Vectren and WPS resources,) bringing the total comparable group to 7. Using this approach led to a very similar ROE result of 9.5%. (see attached workpapers.) Thus, under both sets of comparable electric utility companies -- small caps only and small caps and smaller mid-caps combined -- we find that the appropriate return on equity for CVPS indicated by applying the DCF methodology lies in the range of 9.3 to 9.5%.

III.B CAPM Application

Q. DID YOU DEVELOP ANY EQUITY COST ESTIMATES USING OTHER METHODS?

A. Yes. We used the CAPM approach to obtain an alternative estimate as a check on our DCF results. We generally do not believe that this method or other risk-

premium approaches are as reliable as DCF, owing partly to the instability of the risk premium itself. However, we believe it is useful, at a minimum, to use the CAPM method as a check.

Q. PLEASE EXPLAIN THE IDEA UNDERLYING THE CAPM APPROACH.

A. The CAPM method uses a formula to estimate the return required for a stock based upon the risk level of the stock as compared to the market as a whole. Earlier, we described investors' concerns about risk as the fear of losing money, or more generally, uncertainty about the future returns of an investment. Modern portfolio theory has taken the analysis of risk a step further by dividing variability into company-specific and "systematic" components. The idea underlying this distinction is that in a portfolio of investments, it is possible to diversify away company-specific risk by investing in a number of companies. This leaves only variability that *cannot* be diversified away because it reflects the risk that *all* securities share, *i.e.*, the risk that the whole investment market (in practice usually the whole stock market) will rise and fall together.

The Capital Asset Pricing Model (CAPM) formalizes systematic or market risk in the concept of "beta." The stock market as a whole has a beta of one, by definition. Individual securities range from having a negative beta ("hedge" securities that change in value in the opposite direction to the market), to a positive beta less than one (relatively low-risk securities including most regulated electric utilities) and a positive beta greater than one (relatively risky securities).

The CAPM formula is as follows:

$$k = r_f + (b \times (r_m - r_f))$$

where k is the required rate of return on common equity,

r_f is the risk-free rate of return,

b is the "beta" measure of market risk for these companies, and

r_m is the required return on the market as a whole.

Note that in this formula $(r_m - r_f)$ is the difference between the expected return on the market and the risk-free rate of return, *i.e.*, it is the risk premium required on the market basket of securities as a whole. When multiplied by the appropriate beta for the group of stocks being analyzed, the risk premium on the market basket is calibrated to the appropriate level for the group of stocks. This calibrated risk premium is added to the risk-free rate to obtain the total return required for this group of stocks.

Q. WHAT SOURCES OF DATA DID YOU USE?

A. We obtained current estimates of the risk-free rate of return using Three-Month Treasury bill and Thirty-Year Treasury bond rates, which (as of September 23, 2004, as reported by Yahoo Finance) are at 1.59% and 4.77% respectively. To these, we added long-term historical risk premiums reported by Ibbotson Associates, in their *2004 Yearbook*, for large-company and small-company stocks. These premiums above Treasury bill and Treasury bond rates range from 4.16 to 8.63 percentage points – see Schedule 6.

Q. WHAT DOES YOUR CAPM EXERCISE INDICATE WITH REGARD TO THE COST OF COMMON EQUITY FOR CVPS AND OTHER SMALL CAP

ELECTRIC UTILITY COMPANIES?

A. The average beta for the group of Small Cap companies that we identified in Schedule 1 is 0.63. A critical variable in the analysis is the distinction between small and large companies because in the Ibbotson Associates data, the long-term market return for small companies is 17.5%, compared with only 12.4% for large companies. The main issue then is where on the spectrum between "small" and "large" the comparable companies belong. The average market capitalization for the group is $498 million (see Schedule 2). It seems clear that Small Cap utilities combine features of large companies – larger size than the average "small" stock, longevity, and relatively secure regulated markets – with size characteristics closer to those of non-regulated small companies. In these circumstances, we chose to simply average the returns by using small and large company risk premiums in our CAPM analysis. The CAPM result – see Schedule 6 -- is 9.57%.

Q. DID YOU CALCULATE COST OF EQUITY UNDER THE CAPM METHODOLOGY USING YOUR ENLARGED DATA SET?

A. Yes. With the inclusion of Vectren and WPS Resources, the average beta of the comparables group changes to .66. This, in turn, indicates a return on equity of 9.88%. Thus, under both sets of comparable companies -- small caps only and small cap and smaller mid-caps combined -- we find that the estimated return on equity for CVPS using the CAPM methodology lies in the range of 9.57 to 9.88%.

III.C Brief Comments on Mr. Cater's Analysis

Q. PLEASE COMMENT ON MR. CATER'S ANALYSIS.

A. It seems to us that Mr. Cater's data – although not of course his interpretation of the data – support our best estimate of 10% cost of common equity capital for CVPS, rather than his own best estimate of 11%. The range of his values is 9.48% to 11.49%, which clearly includes our best estimate as well as his own. More importantly, his DCF analysis produces an average value of 9.48%. His Risk Premium methods (we include CAPM as a Risk Premium method) yield average values of 9.54% and 11.49% respectively. Given our belief that the DCF method is more reliable than CAPM or other Risk Premium methods, we regard an estimate of 10% as an appropriate reconciliation of Mr. Cater's data.

Q. HOW DOES MR. CATER SUPPORT HIS MUCH HIGHER ESTIMATE OF 11%?

A. He places more emphasis than we do on such factors as allowed rates of return in other jurisdictions, and his view that an investment in CVPS is more risky than we believe it is. He also believes that increases in interest rates that have not yet occurred, but he expects to occur in the future.

Q. PLEASE COMMENT ON THE INTEREST RATE SITUATION.

A. Many economists believe that over time interest rates will rise. However, analysts must avoid "lecturing" the market rather than observing it. What seems to be happening is that the Federal Reserve Board's increases in *short-term* interest rates, along with the uncertain outlook for economic growth, are keeping *long-term* interest rates low, which suggests that the cost of equity capital, which

is also long-term, remains low. According to the New York Times, September 25, 2004, even as short-term interest rates have risen significantly compared with a year ago, long-term rates have not followed suit:

	9/24/04	Year Ago
3-Month Treasury bills	1.73%	0.94%
30-Year Treasury bonds	4.80%	4.93%

Q. WHAT IS THE CURRENT VIEW OF THE FEDERAL RESERVE BOARD?

A. In its September 21, 2004 *Statement on Interest Rates*, the Federal Open Market Committee said "inflation and inflation expectations have eased in recent months. The committee perceives the upside and downside risks to the attainment of both sustainable growth and price stability for the next few quarters to be roughly equal." In other words, in the Fed's view it is about as likely that the economy slows and inflation eases as it is that the economy grows rapidly and inflation accelerates. This view explains the low level of long-term interest rates, which can be seen as reflecting the expectation that short-term and medium-term interest will remain low: long-term interest rates can be seen as consisting of a series of expected short-term interest rates, adjusted for maturity factors. (The economic outlook is discussed further below.)

III.D Best Estimate of Cost of Equity Capital for CVPS

Q. HOW DO YOU PROPOSE TO RECONCILE YOUR ESTIMATES OF COST OF COMMON EQUITY CAPITAL?

A. We reviewed certain broader sources of information as a guide to the use of estimates derived from these detailed calculations. First, we note that the actual earned returns on common equity (ROEs) of our comparable group of small electric utility companies currently average 10.3% according to Value Line. (See Schedule 7) For the broader electric utility industry, Value Line (September 3, 2004) estimates actual ROE for 2004 at 10.8%. We note that market to book ratios for the stocks of our group of companies currently average 149% (see Schedule 7), which suggests that their current returns are at least adequate, and more likely a bit rich. A market to book ratio closer to 100% would be adequate to enable investors to sell their stocks and recover the actual book costs of their investments. Likewise, a market to book ratio closer to 100% would still enable companies to issue stock without diluting book value per share.

Q. HAVE YOU REVIEWED COMMISSION-ALLOWED RATES OF RETURN ON EQUITY?

A. Yes. Allowed returns have generally declined in recent years. (See Schedule 10) A March 2004 study on rate cases by Lehman Brothers finds, "In 2003 the average allowed ROE in 16 decisions was 10.41% (not including the Wisconsin Energy decision [which was an outlier at 12.7%.]) We [Lehman Brothers] believe allowed ROEs will be in the 9.5% - 11% range in 2004."[3]

Q. WOULD A 10.0% RETURN ON EQUITY ALLOW THE COMPANY TO MAINTAIN ITS INVESTMENT GRADE FINANCIAL SITUATION?

A. Yes. The Company is currently earning only 9.0% on common equity (Value

Line, 9/3/04), and its securities are rated investment grade. An increase in actual ROE to 10% should only improve its financial profile.

Q. DID YOU REVIEW OTHER SOURCES OF INFORMATION ON THE COST OF CAPITAL TODAY?

A. Yes. As discussed in the previous section, we reviewed the broad trends in interest rates, leading up to the current interest rates we used in our CAPM analysis. Both long-term and short-term interest rates are low compared with the ten-year period before that. They are also significantly lower than the long-term averages calculated by Ibbotson Associates, which are 3.8% for Treasury Bills and 5.8% for 30-year Treasury Bonds. And, as mentioned, although it appears that the economy is experiencing a recovery, inflation is likely to remain subdued relative to historical rates in the near future. The Fed has said it believes future rate increases can be made "at a pace that is likely to be measured." Economics have interpreted this to mean that there is likely to be a continuation for some period of the series of small quarter-point increases in the federal funds rate at the Fed's regular meetings.[4]

Q. HOW DOES THE CONDITION OF THE ELECTRIC UTILITY INDUSTRY AFFECT CVPS's COST OF CAPITAL?

A. The electric utility industry has, as is well known, been through a period of turmoil associated with partial deregulation and restructuring. This period may not be fully behind us. Utility holding companies that embarked on electricity

[3] Ford, Daniel and Nahla Azmy, Po Cheng, Thomas O'Neill, Gregg Orrill, " They're Back! Twenty-Six Rate Cases This Year Give Rise to the Regulators, " Lehman Brothers, March 5, 2004.
[4] Crutsinger, Martin, "Fed ups interest rate by quarter point," The Associated Press, August 10, 2004.

trading ventures or even those that own significant amounts of generation are particularly vulnerable to market fluctuations. However, utilities like CVPS that are still regulated and likely to remain so for the time being are relatively stable from an investor standpoint.

Q. PLEASE COMMENT ON CVPS'S FINANCIAL SITUATION AND OUTLOOK.

A. CVPS stock performed well over the last several years. CVPS ranked first in the country in the Edison Electric Institute's 2003 index for five-year shareholder returning, providing shareholders a 205% return. The index ranked the national's 64 publicly traded companies for the period of January 1, 1999 through December 31, 2003. The index includes changes in stock prices and dividend reinvestment. EEI determined that CVPS provided the best total shareholder return of any publicly traded utility in the nation over the past five years.[5] Since the beginning of 2004, CVPS has continued to outpace the industry. As Morningstar puts it "this stock has been one of the strongest performers in its industry."[6] 2004 has been a tough year for the industry as a whole, but relatively speaking, CVPS as outpaced both the S&P 500 and the industry significantly from January 1, 2004 to date.

Q. WHAT WAS THE BOARD'S DECISION LAST YEAR ON ALLOWED ROE WITH REGARD TO THE MEMORANDUM OF UNDERSTANDING BETWEEN CVPS AND THE VERMONT DPS?

[5] CVPS 2003 Annual Report to Shareholders, p.3

A. In last year's Memorandum of Understanding, the Company and the DPS proposed an earnings cap of 10.5% on common equity. In its February 2004 order, the Board expressed its belief that this proposal was too high under the circumstances, and approved a 10.25% earnings cap for CVPS.

Q. WHAT HAS CVPS SAID WITH REGARD TO THE CURRENT NEED FOR A RATE INCREASE?

A. On July 27, 2004, there was a shareholders earnings conference call, in which CVPS's chairman stated, "I would like to update you on the status of the rate investigation opened in April by the Vermont Public Service Board. As required by the Board, CVPS filed its cost of service on July 15. At the same time, we filed for a 5% rate increase, which is expected to become effective in April 2005. Previously, CVPS had a goal of keeping rates flat until 2006. Had the Board not opened a rate investigation, we would not have elected to file for rate increase at this time. However, since the Board chose to open a rate investigation, we believed it was prudent to request an increase earlier than we would have liked."[7] This suggests that a rate increase for CVPS has a low degree of urgency at this point.

Q. DOES THE COMPANY'S INVESTMENT IN NON-REGULATED BUSINESSES AFFECT ITS RISK PROFILE?

A. Analysts have expressed concern that potential instability in the company's situation could result from the Company's investments in non-regulated

[6] Morningstar's online analysis of CVPS found at: http://quicktake.morningstar.com/Stock/Diagnostics.asp?Country=USA&Symbol=CV&stocktab=interpret

businesses. What we would point out here is that this does not reflect the riskiness of CVPS's utility investment, and should not be taken into account in setting its allowed return on those investments.

[7] Central Vermont Public Service Earnings Conference Call (Q2 2004) Tue, Jul 27, 2004, 10:00 am. Found on http://biz.yahoo.com/cc/7/45567.html.

IV. AMORTIZATION OF REGULATORY ASSETS.

Q. IN ITS ORDER OF JANUARY 27, 2004 IN DOCKET NO. 6866, THE BOARD EXPRESSED ITS CONCERN OVER CVPS'S HIGH AND GROWING LEVEL OF REGULATORY ASSETS. PLEASE TURN TO THIS ISSUE.

A. The Board's concern is that the Company's rates do not adequately reflect both its current level of expenses and amortization of previously-incurred expenses. Simply put, the Board realizes that only if expenses are adequately reflected in the Company's rates will the build-up of deferred expenses in the form of "regulatory assets" (i.e., recoverable expenses incurred by the utility but not yet recovered from ratepayers) be avoided. To the extent the level of regulatory assets is already high, and in some cases not currently being amortized, it would be desirable to work these assets down by amortizing them.

Q. HOW HAS THE COMPANY ADDRESSED THIS PROBLEM IN ITS FILING IN THIS MATTER?

A. CVPS has proposed that most of its deferred expenses be amortized over a three-year period. One or two items will remain recoverable over time periods already agreed to by the Board.

Q. IS THIS A SOUND PROPOSAL FROM A RATE-MAKING STANDPOINT?

A. We do not believe the Company's specific proposal is reasonable. While it resolves the problem of indefinitely prolonging recovery, our sense is that it goes to the other extreme and increases rates too much in the near term.

Q. WHAT IS AN APPROPRIATE TIME-PATTERN FOR THE RECOVERY OF DEFERRED EXPENSES FROM RATEPAYERS?

A. In the determination of a suitable time pattern, intergenerational equity is clearly important, as the Board has noted. In the words of the Board, "it is inappropriate to require future ratepayers to bear costs that are not fairly attributable to the provision of service to them." (1/27/04 Order at p. 16) However, some deferred expenses reflect costs that are part of the provision of service over the longer term, and in any event most customers remain in the Company's service territory; almost all present ratepayers are likely to remain ratepayers in the near future. We would propose that a smoothing of rates over time is appropriate in order to avoid having rate levels that are burdensome in the near term.

Q. DO YOU BELIEVE CVPS'S PROPOSAL WOULD RESULT IN RATES THAT ARE BURDENSOME IN THE NEAR TERM?

A. Yes. CVPS's rates are already high **(COMPARATIVE REGIONAL RATE DATA TO BE INCLUDED HERE FROM ANDERSON TESTIMONY).** While it may be true, as Mr. Anderson says, that CVPS's rates have risen less rapidly than those of other regional electric utilities, the data show that they are still among the highest in the region.

Q. WHAT EFFECT WOULD THE COMPANY'S PROPOSALS HAVE ON RATES?

A. The Company is requesting a rate increase of 5.01%. Of this increase, 1.7 percentage points or slightly over one third (34%) is accounted for by new amortization of deferred expenses. We believe this increase would make CVPS's rates burdensome to customers.

Q. HOW WOULD YOU PROPOSE THAT THE BOARD SHOULD RESOLVE THIS ISSUE?

A. We would suggest the approximate halving of the immediate rate impact of this item by doubling the recovery period of these regulatory assets to six years. This should still allow the Company to reduce the amount of deferred expenses over time, as required by the Board, while reducing the proposed rate increase by something under one percentage point.

V. CONCLUSIONS AND RECOMMENDATIONS

Q. PLEASE SUMMARIZE YOUR CONCLUSIONS AND RECOMMENDATIONS.

A. We are proposing two adjustments to the Company's 5.01% rate increase request. Please note that we have not addressed in our testimony the reasonableness or otherwise of other aspects of the Company's rate increase request.

Q. IN DOLLAR TERMS, HOW LARGE ARE YOUR ADJUSTMENTS TO THE COMPANY'S COST OF SERVICE FOR RATE YEAR 2?

A. The 100 basis point adjustment of allowed ROE from 11% to 10% in Rate Year 2 would be approximately $2,329,296 or 0.89%.[8] The adjustment to amortization would depend on the treatment of specific items by the Board. In aggregate, the Company's requested annual amortization of deferred costs, net of liabilities, in Rate Year 2 is $3,252,984. Halving this amount would reduce the Company's proposed amortization request by $1,626,492 or 0.62% of expected revenues. The combined effect of these two adjustments would be on the order of 1.5 percentage points of expected revenues, reducing the rate increase to perhaps 3.5%.

Q. WHAT, THEN, IS YOUR OVERALL RECOMMENDATION TO THE BOARD?

[8] Adjusted rate base is $246,642,000 (Schedule 3), of which 55.53% is common equity (Schedule 2), i.e., $136,960,303. A one percentage point adjustment of ROE on this amount is $1,369,603 after tax, or, grossed-up for taxes at an effective tax rate of 41.201%, $2,329,296 revenue requirement. This is 0.89% of expected revenue of $262,706,000 (Schedule 1).

A. We would hope that the Board, taking these and possibly other adjustments into account, is able to set just and reasonable rates for CVPS consistent with increasing the Company's rates by less than the rate of general inflation, which is running about 3%. This would have the effect of reducing, not increasing, the Company's rates in "real" or inflation-adjusted level.

Q. DOES THAT COMPLETE YOUR TESTIMONY?

A. Yes, thank you.