

UNION ELECTRIC COMPANY

CASE NO. ER-81-180

DIRECT TESTIMONY OF W. E. CORNELIUS

Q. Please state your name and address.

A. W. E. Cornelius, St. Louis County, Missouri.

Q. What is your position with Union Electric Company?

A. President.

Q. Please describe your educational, professional and business experience.

A. I graduated from the University of Missouri in 1953 with a degree in Business Administration. I am a Certified Public Accountant and a member of the American Institute of Certified Public Accountants and the Financial Analysts Federation. From 1955 until 1962, I was with Price Waterhouse & Co., a firm of Certified Public Accountants. In 1962, I joined Union Electric Company as Assistant Controller. In 1964, I became Director of Corporate Planning and in 1967 I was elected Vice President - Administrative. I was elected Executive Vice President in April, 1968 and to the Company's Board of Directors in November, 1968. I was elected President in April, 1980.

Q. Are you a director of any other companies?

A. I am a director of Missouri Power & Light Company, Missouri Edison Company, Missouri Utilities Company and Union Colliery Company, all subsidiaries of Union

Electric Company. I am also on the Board of Directors of First National Bank in St. Louis.

Q. Are you familiar with the subject matter of this proceeding?

A. Yes, I am.

Q. Why is the Company seeking to increase electric rates?

A. Because such an increase is necessary and essential if an adequate level of electric service is to be maintained. All of our costs of doing business have been increasing because of the chronic inflation experienced during the last decade. However, electric rates have not kept pace with inflation which has resulted in an inadequate earned rate of return. Our poor earnings record is reflected in the price of our stock which has consistently sold below book value since 1974. Another indication of the serious deterioration in earnings that has taken place during the 1970's is the downgrading of our bond ratings. In 1973, our bonds were rated double A by both Moody's and Standard & Poor's. Today, Standard & Poor's rates our bonds BBB+ and Moody's rates them Baa.

The non-regulated business may react to inflation and increased costs in a number of ways, including raising prices to cover increased costs. It is equally important that utility rates cover the current cost of doing business in fairness to utility investors and consumers. This is one

basic reason why Union Electric is seeking the rate increase requested.

We also have a compelling need for funds which is of great importance because of the capital-intensive nature of an electric utility. Recognition of this fact will, in my opinion, show that fair treatment of a utility will inevitably produce the best bargain for the utility customer.

Q. What do you mean by the term "capital-intensive"?

A. I mean the high degree of an electric utility's dependence on investment capital. The electric utility industry requires more capital investment than any other industry. The electric power industry typically accounts for 30% of all new corporate security issues. Thus, the competition for the investor's dollar is critical for electric utilities. And, to survive, that competition must be met.

Q. Do you have responsibilities in raising new capital for Union Electric?

A. Yes, I do. I am responsible for seeing that plans for new issues of bonds, preferred stock, common stock and other types of securities are developed. I am involved in the selection of underwriting firms and in the negotiation of terms and conditions of all issues of Union

Electric securities. I am also involved in establishing the Company's dividend policy.

Q. What has been your experience in such matters?

A. Since 1967, I have been directly involved in raising almost \$2 billion in new capital for Union Electric. This includes 17 sales of bonds, 6 issues of preferred stock and 9 issues of common stock.

Q. What is the purpose of your testimony?

A. My purpose is to explain the need for the rate increase requested by the Company. Particularly, I will address the important cause and effect relationship which exists between a fair return on investment and adequate service to the customers we serve. And, in this connection, I agree with Mr. Birdsong's recommendation that Union Electric be granted an overall rate of return of 10.88 percent and a return on common equity of 15.5 percent. In covering the practical problems Union Electric faces in competing for new capital I will discuss the following items:

1. Capital requirements of the Company.
2. Cash flow requirements of the Company.
3. Bond ratings.
4. The quality of the Company's earnings.
5. Interest coverage requirements.
6. Attitude of investors toward the Company's securities.



7. Earnings and dividend growth of the Company.

8. The effect of selling common stock below book value.

Q. What exhibits are you sponsoring?

A. I am sponsoring Exhibits \_\_\_\_ (WEC-1) through \_\_\_\_ (WEC-13)

Q. Were Exhibits \_\_\_\_ (WEC-1) through \_\_\_\_ (WEC-13) prepared by you or under your direction?

A. Yes, they were.

Q. What is the relationship between fair rate of return and cost of capital?

A. The rate of return granted in a rate proceeding must, as a minimum, equal the overall cost of capital. Otherwise, the financial requirements of the Company can be met only by confiscation of the capital of existing security holders. This is occurring as illustrated by the fact that the Company has had six consecutive sales of common stock at a net price less than its book value per share. These sales of stock at discounted prices have resulted in the confiscation of approximately \$135 million of common shareholders' investment.

Q. Why is a fair rate of return particularly important to an electric utility?

A. Because of the large amount of capital required in our business. No other type of business

requires as much capital investment to produce a dollar of revenue. This places an electric utility at the mercy of the capital markets. Union Electric must attract large amounts of capital if it is to meet its obligations to provide reliable electric service. To attract capital, it is necessary to provide the investor with a return equal to that available in other business ventures having similar risks. On the other hand, the investor has a large number of alternatives for his savings. No investor can be compelled to purchase the securities of Union Electric. The capital markets operate efficiently to channel investor savings into the most productive uses, risk and reward considered. Therefore, the electric utilities are able to attract funds in the capital markets on economical terms only when they compare favorably with other investment alternatives.

Q. What capital investment will be required by the Company during the next two years?

A. Our net expenditures for new construction will be \$354 million in 1981 and \$271 million in 1982. This is set forth in Exhibit \_\_\_\_\_ (WEC-1).

Q. How much outside financing will this require?

A. Without rate relief we will need to raise approximately \$375 million in 1981 and at least \$300 million in 1982. These amounts must be raised from the sale of

common stock, preferred stock, and debt securities. We will also need to expand our bank lines of credit.

Q. What plans has the Company for permanent financing in 1981?

A. We plan to sell \$150 million of mortgage bonds in February and \$75 million of preferred stock in May. We also will issue approximately 6 million shares of common stock in the fall and will need to raise another \$50 million of long term debt by the end of the year.

Q. Please describe the capital structure of Union Electric.

A. The capital structure of Union Electric consists of long-term debt, preferred stock and common equity. Typically, we have about 48-52% of our permanent capital in long-term debt, 13-16% in preferred stock and 35 to 38% in common equity. The capitalization ratio will vary depending on where we happen to be at any given point in our financing schedule.

Most of Union Electric's long-term debt is first mortgage bonds. These are secured by the property of the Company. The bonds have a specified maturity date and bear interest at a fixed rate. Bondholders' interest must be paid before any dividends can be paid on common and preferred stock. The mortgage indenture also sets forth various requirements that must be met before new bonds can be issued.

Preferred stock is an equity security that has some of the characteristics of a bond. The dividend rate is fixed and must be provided for before any dividend can be paid on common stock. Preferred stock does not have a fixed maturity date although two of our recent preferred issues have required a sinking fund provision that calls for redemption of a prescribed number of shares annually.

Common stock equity consists of the proceeds from the sale of common stock and retained earnings. Dividends are not at a fixed rate and are dependent on the earnings of the company. The common stockholder bears the most risk of any security holder, and, therefore, requires a higher return as compensation for this increased risk.

Q. You have described the large capital requirements of Union Electric. Are these large needs typical of the utility industry?

A. Yes. The Edison Electric Institute estimates that electric utilities must raise approximately \$155 billion during the 1980-1984 period.

Manufacturing firms can control the timing of their plant and equipment investments. Electric utility companies, on the other hand, must meet the power demands of their customers and must, in fact, anticipate such demands. It takes from 8 to 12 years to construct a power plant. This requires a continuing stream of expenditures, independent of the condition of the capital markets and the

business cycle. Electric power companies must therefore maintain continuing appeal in the capital markets if the electric power demands of the future are to be met.

Because of our obligation to meet the needs of all our customers, we cannot stop spending when new investments become unprofitable because of an inadequate rate of return. At the same time, no business can continue indefinitely to raise large amounts of capital at a cost higher than its earned rate of return.

Q. Will the Company be able to raise the new capital that is needed?

A. Only if we have improved earnings. When we go to the capital markets for funds, we must compete with others who are also seeking money. A major item considered by investors in deciding whether to buy our bonds or stock is our expected future earnings. That is another reason we need this rate increase. We must have prospective earnings sufficient to attract capital. Without higher rates, our earnings will not provide our existing stockholders a fair return and it will be more difficult and more expensive to attract additional capital. The amount of electric load that Union Electric will have the capability to serve will depend entirely on our ability to finance new facilities. Without adequate electric rates, the area we serve will experience shortages of electricity in the years ahead and

it will be necessary to discourage business from locating or expanding in Missouri.

Q. You have discussed the magnitude of the Company's capital requirements and the need to raise large amounts of capital from investors. Are there other sources of funds available to the Company?

A. Yes, these are usually referred to as internally generated funds.

Q. What are internally generated funds?

A. There are three primary sources of internally generated funds. These are retained earnings, depreciation provisions and deferred taxes.

Retained earnings consist of that portion of the Company's net income that is not paid in dividends to the preferred and common stockholders but instead is reinvested in the business.

Depreciation is a non-cash expense which recovers plant investment through the Company's revenues and, thus, provides a source of cash that is reinvested in new facilities.

Finally, deferred income taxes and deferred investment tax credits are important sources of internally generated funds. For income tax purposes, the Company computes depreciation and deducts other expenses using methods allowed by the Internal Revenue Code. The different treatment of depreciation and other expense items for rate



and tax purposes has the effect of reducing income taxes during the early years of an asset's life with a corresponding increase in income taxes during the later years. The Company also reduces its current income taxes by claiming an investment tax credit authorized by the Internal Revenue Code and this is amortized over the life of the asset.

Q. Will you comment upon the extent to which electric utility companies as opposed to manufacturing firms depend upon internally generated funds.

A. Most manufacturing businesses finance approximately 75% of their expansion requirements from internally generated funds. Electric utilities in recent years have been able to generate only about 38% of their capital requirements from internal sources. Their dependence upon external capital markets, therefore, is a function both of high capital intensiveness and inability to rely heavily on internally generated funds.

Q. You said that electric utilities have been generating about 38% of their funds internally in recent years. How does Union Electric compare with the electric utility industry?

A. Until 1978, we compared favorably with the industry. However, our situation has deteriorated and in 1980, we generated only 27% of our construction funds from internal sources. This is shown on Exhibit \_\_\_\_\_ (WEC-1).

Q. What were the significant factors in regard to the Company's internally generated funds during the last five years?

A. Exhibit \_\_\_\_ (WEC-1) shows that retained earnings have been negative since 1977. This is due to two things. First, the inadequate return on equity that the Company has earned in recent years. Second, the high proportion of the Company's earnings represented by AFUDC. These AFUDC credits produce no cash. In order to attract common stock investors, the Company must pay a dividend on common stock that is competitive in the market. In the last five years our dividend payout was 75% of our earnings. However, after 1976 actual dividends paid have exceeded our cash earnings before AFUDC. This, of course, resulted in a negative cash flow.

Q. What portion of the Company's construction funds will be generated internally in the future?

A. Without rate relief we will generate no funds internally in 1981, and our internally generated funds will be a negative \$57 million in 1982. This is shown in Exhibit \_\_\_\_ (WEC-1). The years 1981 and 1982 are critical from the standpoint of cash flow. Inadequate returns on equity such as we have been earning have a double-barreled effect on our ability to finance the construction program needed to serve our customers. First, it reduces the amount of cash available for construction from retained earnings. In our

case, cash from retained earnings is actually negative. This means our external financing requirements are increased. At the same time, an inadequate rate of return means our securities are less attractive and, therefore, our financing costs are increased.

Q. How are financing costs increased by an inadequate rate of return?

A. An important factor in determining the cost of bonds is the rating assigned by the two principal rating agencies. The higher the rating the lower the interest cost. Until the mid-1970's, our bonds had been rated AA by Standard & Poor's and Aa by Moody's. In 1975 Moody's reduced our rating to A and to Baa in January, 1981. Standard & Poor's dropped our rating to A in 1974, to A- in July, 1980 and to BBB+ in January, 1981. Exhibits \_\_\_\_ (WEC-2) and \_\_\_\_ (WEC-3) define the various ratings of both services.

On Exhibit \_\_\_\_ (WEC-4) I have summarized the ratings of 118 electric utilities that have bonds rated by both Moody's and Standard & Poor's. 73 of these companies were rated A- or better by both of the rating agencies. Since that report was prepared the bonds of Union Electric have been downrated which places us in a very weak position in relation to the utility industry. We now face not only a higher cost of financing but in times of tight money, we probably cannot sell enough debt to meet our needs. It is

absolutely vital that the Company regain at least an A bond rating with Moody's and Standard and Poor's. That is why this rate case is so important.

We have also been downgraded by Duff and Phelps, Inc. On April 21, 1980 they downgraded our first mortgage bonds from a "7" to an "8". Their rating of "7" is equivalent to a "Low A" and their "8" is equivalent to a "High BBB". With this derating, only 11 percent of electric utilities rated by Duff and Phelps are rated below Union Electric, while 78 percent are rated above. See Exhibit \_\_\_\_ (WEC-5). Our investment bankers have indicated that the ratings of Duff and Phelps have grown in prestige, and that an increasing percentage of institutional investors are relying thereon.

Q. Can you quantify the higher interest costs that come from lower bond quality ratings?

A. Yes. Exhibit \_\_\_\_ (WEC-6) reflects the differential cost for the various grades of bonds from Aaa to the Baa category that now includes Union Electric. Although these average yield differentials are sizeable, at times of tight credit they become significantly more pronounced. For example, during the market deterioration of 1980 spreads between A rated bonds and Baa bonds reached 136 basis points (100 basis points equal one percent per annum). In addition to adding to the cost of future financing, during periods of market pressure it may be virtually

impossible to sell the securities of Baa companies. In 1974 and 1975, for example, for a period of 10 months not a single long-term issue of Baa utility bonds was sold. The market during periods in 1980 also essentially precluded the sale of long-term bonds by Baa rated companies. This, of course, is an impossible situation for Union Electric since we must have continuing access to the capital markets for the sale of securities.

Q. Does the rating of a firm's long-term bonds have any bearing on the cost of short-term financing?

A. Yes. The cost of issuing commercial paper is strongly influenced by the bond rating of the issuing company. Many investors in commercial paper specify certain quality ratings of companies in whose notes they are willing to invest. The placement of commercial paper is enhanced if the issuing firm has a Aa or Aaa bond rating since many investors will only buy paper issued by Aa or Aaa companies. It is very difficult for a Baa or BBB rated company such as Union Electric to sell commercial paper, particularly in tight markets. This is another reason why it is so important for Union Electric to regain at least an A bond rating. Otherwise, this type of financing will not always be available to us.

The ability to sell commercial paper not only reduces the cost of short-term financing but also provides the Company with additional sources of short-term credit.



Q. Do the rating agencies assign ratings to commercial paper as well as to bonds?

A. Yes. Standard & Poor's has three rating categories for commercial paper notes as follows: A-1, A-2, and A-3. Moody's has a similar listing carrying the designations P-1, P-2, and P-3.

Q. What ratings are carried by the commercial paper of Union Electric?

A. Following the January, 1981 downgrading of our bonds, Standard & Poor's reduced the rating of our commercial paper from A-2 to A-3. Moody's is currently reviewing the P-2 rating of our commercial paper.

Q. What is the significance of these ratings as they apply to commercial paper?

A. A strong commercial paper rating is of even greater significance to the marketability of such obligations than to bonds. Commercial paper represents unsecured notes that are sold either directly or through dealers to organizations having surplus short-term funds. Traditionally, such funds were invested in Treasury bills and similar issues of unquestioned quality. With the higher yields available on commercial paper, many institutions began to divert their surplus funds to commercial paper in the expectation that such short-term investments would possess nearly comparable safety.



Q. What is the effect of the recent downgrading of Union Electric's commercial paper rating?

A. We will not be able to sell all the paper we need. For example, during the spring of 1980, most A3 or P3 rated paper was precluded from the market, and Union Electric, rated A2/P2 at that time, had difficulty placing all the paper it desired. Hence, the commercial paper rating is critical to both the cost of funds, and the availability of funds. If commercial paper funds are not available, the Company will have to resort entirely to bank borrowings. During the spring of 1980, the added cost of bank borrowing over commercial paper was often as high as 600 basis points.

Q. What factors do the rating agencies consider in establishing a bond and commercial paper rating?

A. Among the things considered are the magnitude of the company's capital requirements, cash flow as measured by the percent of funds generated internally, quality of the company's earnings, regulatory climate and interest coverage.

Q. You have testified about the magnitude of the Company's capital requirements and the decreasing amount of internally generated funds. Please discuss the importance of the quality of the Company's earnings.

A. Security analysts and others who evaluate a utility's securities are very concerned about the increasing

proportion of our earnings that will be represented by Allowance for Funds Used During Construction (AFUDC). During the 10 years ended 1980, AFUDC amounted to approximately 40% of Union Electric's common stock earnings.

However, by 1980 74% of our earnings came from AFUDC. Exhibit \_\_\_\_ (WEC-7) shows the percentage of the Company's earnings represented by AFUDC for the 10 years ended 1980 together with a forecast for 1981 and 1982.

Without rate relief AFUDC will increase to 122% of the Company's common stock earnings in 1981 and to 187% in 1982. Analysts will view this as a further deterioration in the quality of Union Electric's earnings.

Q. Why do investors view earnings resulting from AFUDC as lower quality than other earnings?

A. AFUDC results from the capitalization of the cost of financing construction. In Missouri, ratemaking procedures require that utility plant be in service before being included in rate base and allowed to earn cash revenues. During construction, the financing costs are added to the cost of the project and credited to income. These credits increase reported earnings but produce no cash. Cash earnings will not occur until the project is operational and this may be years in the future. Since AFUDC credits produce no cash, the earnings they represent are obviously worth less than earnings from operations which do produce cash.

Q. You mentioned regulatory climate as a factor in bond ratings. How do analysts and investors regard the regulatory climate in Missouri?

A. Missouri has been considered to have one of the worst regulatory climates of any state in the country. For example, Argus Research Corporation described Missouri regulation "well below average." Duff and Phelps, Inc. stated that "Missouri has been the most uncertain regulatory jurisdiction for several years."

These were typical reactions about the Missouri regulatory climate. This highly negative attitude on the part of investors places a serious cloud over our ability to sell not only bonds but all securities. Unless the Commission responds to the requirements of investors, the financial community will continue to be negative on investment in utilities in Missouri.

Q. Please discuss the importance of interest coverage in determining the quality of a company's bonds.

A. Interest coverage is one of the most important factors considered by the rating agencies in the determination of bond ratings. It is the principal statistical measure of a company's ability to meet its financial obligations. This ratio compares pre-tax earnings to interest expenses. A high ratio indicates that interest expenses are not consuming a large portion of income and that the company appears able to support its financial

needs. A low ratio, on the other hand, indicates that interest expenses are imposing a burden on the company and that a deterioration in income could possibly result in an inability to meet interest payments.

Looked at in another way, the interest coverage ratio provides a "margin of safety" measurement. It reveals the shrinkage in earnings that could take place and still permit the company to meet its interest payments.

Exhibit \_\_\_\_ (WEC-8) sets forth the Company's actual pre-tax coverage for the years 1971-1980 and a forecast for 1981 and 1982. The exhibit includes coverage calculations required to be included by the Securities and Exchange Commission (SEC) in prospectuses and coverage calculations required under the Company's bond indenture.

The coverage calculations under both methods are similar except that all interest charges are included in the SEC calculation while only interest on mortgage bonds is considered under the indenture coverage calculation. Also, the SEC permits inclusion of all AFUDC in earnings while our indenture limits the amount of AFUDC included in coverage calculations to 10% of operating earnings.

Q. What is the significance of the interest coverage figures on Exhibit \_\_\_\_ (WEC-8).

A. First, in only one of the last ten years has Union Electric's SEC coverage been above 3 times. In the prior ten years, our coverage never dropped below 3 times

and, in fact, was above 4 times until 1966. This indicates the deterioration in financial integrity that has taken place in recent years. Even more important is the downward trend during the next two years. Without rate relief, our SEC coverage will drop to only 2.0 times in 1982.

The situation in regard to indenture coverage is even more serious. The Company's bond indenture requires that earnings before taxes must cover interest on both existing and new bonds at least two times before bonds can be sold. Without rate relief, Union Electric will not meet this minimum test later in 1981 and we will not be able to sell mortgage bonds.

Q. Please summarize your testimony in regard to bond ratings and the ability of Union Electric to market additional bonds.

A. When you consider the magnitude of our financing requirements, the lack of internally generated funds, the poor quality of earnings, the attitude of investors towards Missouri regulation, and the trend in interest coverage, it is obvious that we cannot regain our A bond rating unless we receive adequate rate relief. Failure to improve our bond credit rating will increase the cost of new debt issues and, during periods of tight money, make it virtually impossible to sell additional bonds. Furthermore, if our indenture coverage drops below 2 times, we cannot sell mortgage bonds under any circumstances. Since mortgage



debt provides 50% of the Company's capital, this would bring our construction program to a halt. This would lead to power shortages and would have a serious impact on the economy of Missouri.

Q. What are the quality ratings of the Company's preferred stock?

A. Until November 1972 Standard & Poor's rated our preferred stock as AA. In that month, they reduced our rating to A, and in October 1974 we were reduced to a BBB rating. We were recently downgraded to BBB-.

Moody's first began to rate preferred stock in 1974 at which time a rating of A was placed on Union Electric's preferred stock. Our preferred stock rating was dropped to Baa in January, 1981.

Duff and Phelps reduced our preferred stock rating on April 29, 1980 from "8" to "9". The rating of "8" is equivalent to a "High BBB" and a "9" is equivalent to a "Middle BBB". Exhibit \_\_\_\_\_ (WEC-9) shows that only 11 percent of rated utilities are rated lower than Union Electric, while 80 percent are rated higher.

Q. You have discussed the Company's situation in regard to raising debt capital. What is the importance of common stock in the Company's capital structure?

A. Without an underlying base of common stock equity, a utility cannot sell fixed income securities such as mortgage bonds and preferred stock.



Q. What types of investors purchase Union Electric's common stock?

A. Individuals have purchased most of the stock sold by Union Electric in recent years. They are interested primarily in the dividend yield and the prospect for growth in dividends. They also desire to preserve their capital. They are interested in the prospect of earnings per share growth since this will allow growth in dividends.

We had 168,582 common stockholders at December 31, 1980 and a substantial number of these have small holdings and purchased their stock for current income. For example, 36,090 of our stockholders hold less than 100 shares, 53,619 hold between 100 and 199 shares and 31,294 hold between 200 and 299 shares. In fact, only 5.4% or 9,103 of our stockholders hold over 1,000 shares and many of the shares in these larger accounts are held by institutions such as retirement funds, mutual funds, and life insurance companies which represent the pooled savings of many individuals.

Q. What is the record of dividends and earnings per share growth over the last decade?

A. For the ten year period ending in 1980, dividends per share for Union Electric Company common stock increased at a compound annual rate of only 1.6 percent compared to a compound rate of growth of 7.8 percent in the Consumers Price Index. Earnings per share increased at a rate of only .8 percent. During the preceding ten year

period 1961 through 1970, dividends increased at a compound growth rate of 3.7 percent and earnings increased at the rate of 5.9 percent. In terms of absolute increases, during the last ten years the earnings of the Company have permitted only three dividend increases - in 1976, 1978, and 1980. All of these increases were in the amount of 2 cents per share each quarter.

Exhibit \_\_\_\_ (WEC-10) sets forth earnings per share and dividends per share since 1970. A disturbing factor about our earnings has been the lack of consistent growth. Not since 1976 have we shown earnings growth two years in a row. This is why dividends have been increased only three times in ten years. This lack of consistent growth in earnings and dividends is one of the reasons we have had to sell common stock below book value six consecutive times.

Q. Isn't it true that movement in the market price of a common stock is a function of investor attitude as well as the earning power of a company?

A. Yes. Investors impute a price for a stock that they feel to be justified by a company's present and prospective level of dividends and earnings in light of current economic conditions. This relationship between a company's earnings and the price of its stock is referred to as its "price/earnings ratio" -- sometimes simply referred to as a stock's "multiple." Price/earnings ratios have fallen dramatically during the last ten years - for all

types of companies. Although utility multiples compared favorably with those of industrial companies and more often than not exceeded them until the mid 1960's, the weakening of utility multiples has been more severe than for industrials. Exhibit \_\_\_\_ (WEC-11) reflects these relationships since 1960.

Q. Does this mean that investors consider a dollar of utility earnings to be less valuable than a dollar of industrial earnings?

A. Yes. This is because investors are concerned about the quality of utility earnings. Some of the factors that analysts have taken into account in placing utility earnings on an inferior quality basis relative to industrials are the regulatory lag in adjusting to inflationary cost increases, the interest sensitive nature of utility stocks, and for companies such as Union Electric that are unable to include construction work in progress in their rate bases, the non-cash earnings resulting from Allowance for Funds Used During Construction (AFUDC).

Q. You testified that the Company has had six consecutive sales of common stock below book value. What are the implications of a utility selling common stock at a price below book value.

A. When new issues of stock are sold at a discount from book value, there is a dilution of the earnings potential of all outstanding stock. Although the

new stockholder receives the benefit of a low price for stock relative to book value, he does so at the expense of the old stockholders. Immediately after the sale, the book value of the stock is decreased. In a regulated industry, this means the earning ability of the stock is permanently reduced and this results in confiscation of part of the stockholder's investment.

Since December, 1974, the Company has sold six new issues of common stock to the public. The proceeds from these issues were \$333 million. This is shown on Exhibit \_\_\_\_\_ (WEC-12). Each of these sales was at a net price below the Company's book value at the time of the sale. To raise this amount of money, we had to sell 28 million new shares of common stock. Had these six sales been at a net price equal to book value, we would have sold only 19.9 million new shares to raise the same amount of capital. In other words, since 1974 we have sold 8.1 million more shares than would have been required had our stock sold at book value. These additional shares dilute both earnings and dividends per share.

Q. What has been the effect of the dilution that has resulted from selling stock below book value?

A. Union Electric's consolidated earnings for 1980 were \$125 million. There were 59.7 million average shares outstanding for the period which resulted in earnings per share of \$2.10. If the Company had not previously sold

stock below book value, there would have been 53.9 million average shares outstanding and earnings per share would have been \$2.32. Dilution from the sales of stock below book value reduced earnings per share 10% during 1980 alone.

Dilution also reduced the dividends paid per share. For example, during 1980 the Company paid common stock dividends of \$88 million. The rate per share was \$1.48. If the Company's last six sales of stock had been at book value, the \$88 million paid in dividends would have resulted in a per share rate of \$1.64, or 11% over the \$1.48 actually paid.

Q. How has the reduction in earnings and dividends resulting from sales of stock below book value affected the value of the stockholder's investment?

A. The dilution resulting from the sale of an additional 8.1 million shares since 1974 has reduced the value of existing stockholder's investment by at least \$135 million. This, in effect, represents confiscation of the stockholder's equity in the Company.

Q. Have other electric companies in Missouri also sold stock below book value?

A. Yes. The last electric company in Missouri to sell stock above book value was Empire District Electric in August, 1978. At that time, they sold stock at about 2% over book value. At December 31, 1980, all the stocks of



electric companies in Missouri were selling at discounts below book value.

Q. What, in your opinion, is the principal reason that the stocks of Union Electric and other Missouri electric utilities are selling below book value?

A. The rates of return on equity that have been granted by the Missouri Commission have not been adequate. An authorized return on equity of around 13% to 13.5%, which seems to be the pattern in Missouri, simply won't do the job in today's inflationary environment. At the outset it should be recognized that in a period of increasing costs, the return granted is never actually earned on a sustained basis. More basic, however, is the fact that the spread between returns on common stocks and the yields on high grade utility bonds has narrowed significantly as interest rates have increased. Exhibit \_\_\_\_\_ (WEC-13) compares Union Electric's return on equity with yields of Aa utility bonds for the last twenty years. During this period, bond yields have steadily increased while Union Electric's return on common stock equity since 1970 has been below that earned in the 1960's. The difference between the return on equity and the yield of high quality bonds is a "reward for risk" and this has decreased significantly in recent years. However, as interest rates increase, investors demand a higher yield on common stock. There are two items that determine the yield on a common stock. These are the market price and the



dividend rate. Union Electric's poor return on equity has not permitted dividend increases to keep pace with bond yields so that the only way for the yield on common stock to increase is for the price to drop. This has occurred as shown on Exhibit \_\_\_\_\_ (WEC-13). Without higher equity returns, the stock of Union Electric and other Missouri electric utilities will continue to sell below book value.

Q. What financial standards, in your opinion, should Union Electric meet in order to have the financial integrity to treat existing investors fairly and to attract capital on reasonable terms?

A. I believe we should be able to:

- a) Generate between 40-50% of our construction funds internally.
- b) Maintain a AA bond rating and Prime-1 commercial paper rating.
- c) Sell common stock at net prices at least equal to book value.
- d) Provide investors with high quality earnings that permit consistent growth in dividends.

Union Electric falls far short of meeting these standards as indicated by our poor cash flow position, our substandard Baa/BBB+ bond ratings, our high percentage of AFUDC credits in earnings, and the fact that we have had six consecutive common stock sales at prices below book value.

Q. Is it in the interest of the customers of Union Electric for the Commission to grant the rate of return requested in this proceeding?

A. Yes. An inadequate rate of return results in higher costs to the Company and to its customers. A financially sound company is in the interest of all its constituents - customers, creditors, employees, stockholders, and the public.

There is a direct relationship between economic growth and availability of energy. Union Electric and its subsidiaries serve a substantial portion of Missouri and a shortage of electric power would be disastrous for the State. The effect in the metropolitan St. Louis area would be even more severe. Like many older cities, the economy in St. Louis has not kept pace with the nation as a whole. At the same time, community leaders in the St. Louis area are working hard to reverse these trends. Shortages of electric power would deal these efforts a death blow. Without a higher rate of return, Union Electric will be unable to maintain the financial integrity necessary to meet the area's power needs.

UNION ELECTRIC COMPANY

EXHIBIT \_\_\_\_\_ (WEC-1) TO (WEC-13)

WITNESS: CORNELIUS

MO.P.S.C. CASE NO. ER-81-180

UNION ELECTRIC COMPANY  
CONSTRUCTION EXPENDITURES AND INTERNALLY GENERATED FUNDS  
(MILLIONS)

	Actual					Forecast	
	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>
Construction Expenditures	\$185	\$211	\$298	\$375	\$401	\$481	\$433
Less AFUDC	<u>-12</u>	<u>-17</u>	<u>-28</u>	<u>-54</u>	<u>-86</u>	<u>-127</u>	<u>-162</u>
Net Expenditures	<u>\$153</u>	<u>\$194</u>	<u>\$270</u>	<u>\$321</u>	<u>\$315</u>	<u>\$354</u>	<u>\$271</u>
Internally Generated Funds							
Retained earnings (less AFUDC)	\$ 8	\$ -9	\$ -5	\$-42	\$-52	\$-131	\$-196
Depreciation	56	61	66	68	70	72	76
Deferred income taxes and investment tax credit	<u>25</u>	<u>50</u>	<u>51</u>	<u>58</u>	<u>68</u>	<u>56</u>	<u>63</u>
	<u>\$ 89</u>	<u>\$102</u>	<u>\$112</u>	<u>\$ 84</u>	<u>86</u>	<u>-3</u>	<u>-57</u>
% of Construction Funds Generated Internally	<u>58%</u>	<u>53%</u>	<u>41%</u>	<u>26%</u>	<u>27%</u>	<u>-1%</u>	<u>-21%</u>

Forecast based on existing rates and projected kWh sales.

DEFINITIONS OF MOODY'S FOUR HIGHEST BOND RATINGSAaa

"Bonds which are rated Aaa are judged to be of the best quality. They carry the smallest degree of investment risk and are generally referred to as 'gilt edge'. Interest payments are protected by a large or by an exceptionally stable margin and principal is secure. While the various protective elements are likely to change, such changes as can be visualized are most unlikely to impair the fundamentally strong position of such issues.

Aa

"Bonds which are rated Aa are judged to be of high quality by all standards. Together with the Aaa group they comprise what are generally known as high grade bonds. They are rated lower than the best bonds because margins of protection may not be as large as in Aaa securities or fluctuation of protective elements may be of greater amplitude or there may be other elements present which make the long term risks appear somewhat larger than in Aaa securities.

A

"Bonds which are rated A possess many favorable investment attributes and are to be considered as upper medium grade obligations. Factors giving security to principal and interest are considered adequate but elements may be present which suggest a susceptibility to impairment sometime in the future.

Baa

"Bonds which are rated Baa are considered as medium grade obligations, i.e., they are neither highly protected nor poorly secured. Interest payment and principal security appear adequate for the present but certain protective elements may be lacking or may be characteristically unreliable over any great length of time. Such bonds lack outstanding investment characteristics and in fact have speculative characteristics as well."

Source: Moody's Public Utility Manual, 1979 Edition.

DEFINITIONS OF STANDARD & POOR'S FOUR  
HIGHEST BOND RATINGS

AAA

"Bonds rated AAA have the highest rating assigned by Standard & Poor's to a debt obligation. Capacity to pay interest and repay principal is extremely strong."

AA

"Bonds rated AA have a very strong capacity to pay interest and repay principal and differ from the highest rated issues only in small degree."

A

"Bonds rated A have a strong capacity to pay interest and repay principal although they are somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than bonds in higher rated categories."

BBB

"Bonds rated BBB are regarded as having an adequate capacity to pay interest and repay principal. Whereas they normally exhibit adequate protection parameters, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity to pay interest and repay principal for bonds in this category than for bonds in higher rated categories."

Source: Standard & Poor's Bond Guide, May 1980 Edition.

Note: In 1974 Standard & Poor's established a finer gradation of ratings by introducing Plus (+) and Minus (-) signs where appropriate to the basic rating symbols shown above.



ELECTRIC UTILITY BOND RATINGS

	<u>Number of Companies</u>	<u>Percent of Total</u>
Aaa/AAA	3	
Aaa/AA	1	
Aa/AA	<u>31</u>	<u>          </u>
	<u>35</u>	<u>29.7</u>
Aa/A or A/AA	8	
A/A or A/A <del>f</del>	<u>30</u>	<u>          </u>
	<u>38</u>	<u>32.2</u>
A/A <sup>-</sup>	<u>6</u> (1)	<u>5.1</u>
A/BBB or Baa/A	14	
Baa/BBB	<u>21</u> (2)	
	<u>35</u>	<u>29.7</u>
Below Baa/BBB	<u>4</u>	<u>3.3</u>
TOTAL	<u>118</u>	<u>100.0</u>

Source: Electric Utility Quality Measurements,  
Solomon Brothers, November 14, 1980.

(1) Included Union Electric.

(2) Since this report Union Electric's bonds have been downgraded to Baa/BBB.

Duff & Phelps Inc.  
Electric Utility Bond Rating (1)

<u>D &amp; P Rating</u>	<u>Number of Companies</u>	<u>Percent of Total</u>
1 = AAA	6	5.3
2 = High AA	7	6.1
3 = Middle AA	11	9.7
4 = Low AA	20	17.6
5 = High A	12	10.5
6 = Middle A	16	14.0
7 = Low A	17	14.9
8 = High BBB	12 (2)	10.5
9 = Middle BBB	8	7.0
10 = Low BBB	2	1.8
13 = Below Investment Grade	<u>3</u> (3)	<u>2.6</u>
TOTAL	<u>114</u>	<u>100.0</u>

- (1) All electric utilities rated by Duff & Phelps, per report dated December 15, 1980.
- (2) Includes Union Electric.
- (3) Includes only GPU Subsidiaries.

MOODY'S AVERAGE OF YIELD ON NEWLY ISSUED  
PUBLIC UTILITY BONDS (IN PERCENT)

<u>YEAR</u>	<u>Aaa</u>	<u>Aa</u>	<u>A</u>	<u>Baa</u>
1970	8.52	8.74	9.15	9.68
1971	7.58	7.69	7.97	8.31
1972	7.34	7.42	7.56	7.89
1973	7.76	7.82	8.00	8.18
1974	9.16	9.47	9.89	(1)
1975	9.13	9.52	10.25	(1)
1976	8.33	8.66	8.96	9.53
1977	8.17	8.30	8.49	8.90
1978	8.96	9.15	9.22	9.63
1979	9.86.	10.48	10.74	11.12
1980	12.55	13.08	13.41	14.26

(1) Between June 1974 and November 1975, there were only three months in which utility bonds with a Baa rating were sold.

UNION ELECTRIC COMPANY  
(000 Omitted)

<u>Year</u>	<u>Common Stock Earnings</u>	<u>AFUDC</u>	<u>% AFUDC To Common Stock Earnings</u>
1971	\$ 46,658	\$ 13,457	29%
1972	42,143	13,377	32
1973	51,879	10,521	20
1974	44,086	13,696	31
1975	66,395	23,107	35
1976	75,770	12,379	16
1977	75,168	19,022	25
1978	96,858	31,469	33
1979	91,107	58,093	64
1980	125,042	92,055	74
<u>Forecast</u>			
1981	104,000	127,000	122
1982	87,000	163,000	187

Forecast based on existing rates and projected kWh sales.

UNION ELECTRIC COMPANY  
INTEREST COVERAGE

<u>Year</u>	<u>SEC Coverage</u>	<u>Indenture Coverage</u>
1971	2.39	2.12
1972	2.10	2.06
1973	2.33	2.83
1974	1.92	2.41
1975	2.51	2.96
1976	2.79	3.34
1977	2.81	2.98
1978	3.18	3.46
1979	2.61	2.86
1980	2.85	3.23
<u>Forecast</u>		
1981	2.15	2.00
1982	2.00	1.54

Forecast based on existing rates and projected kWh sales.

Duff & Phelps Inc.Electric Utility Preferred Stock Rating (1)

<u>D &amp; P Rating</u>	<u>Number of Companies</u>	<u>Percent of Total</u>
1 = AAA	1	0.9
2 = High AA	5	4.4
3 = Middle AA	12	10.6
4 = Low AA	10	8.8
5 = High A	16	14.2
6 = Middle A	16	14.2
7 = Low A	16	14.2
8 = High BBB	15	13.3
9 = Middle BBB	10 (2)	8.8
10 = Low BBB	9	8.0
11 = Below Investment Grade	<u>3</u> (3)	<u>2.6</u>
TOTAL	113	100.0

- (1) All electric utilities rated by Duff & Phelps, per report dated April 29, 1980.
- (2) Includes Union Electric.
- (3) Includes only GPU Subsidiaries.



UNION ELECTRIC COMPANY  
EARNINGS AND DIVIDENCE

<u>Year</u>	<u>Earnings Per Share</u>	<u>Dividends Per Share</u>
1970	\$ 1.92	\$ 1.26
1971	1.61	1.28
1972	1.35	1.28
1973	1.62	1.28
1974	1.37	1.28
1975	1.78	1.28
1976	1.86	1.34
1977	1.67	1.36
1978	2.01	1.40
1979	1.73	1.44
1980	2.10	1.48

COMMON STOCKEND-OF-YEAR PRICES PER SHARE AND PRICE-EARNING RATIOS1960 - 1979

STANDARD & POOR'S			UNION ELECTRIC COMPANY -		
<u>INDUSTRIALS</u>			<u>CONSOLIDATED</u>		
<u>Year</u>	<u>Price</u>	<u>Price-Earnings Ratio</u>	<u>Price*</u>	<u>Price-Earnings Ratio</u>	<u>Price Earnings Ratio as Percent of Industrial Price-Earnings Ratio</u>
1960	61.49	18.14	\$19.69	18.06	100
1961	75.72	22.47	23.56	20.49	91
1962	66.00	17.05	24.00	20.00	117
1963	79.25	18.69	28.88	21.71	116
1964	89.62	18.55	29.25	21.67	117
1965	98.47	17.87	28.13	19.01	106
1966	85.24	14.47	25.75	16.83	116
1967	105.11	18.57	22.13	13.83	74
1968	113.02	18.38	22.38	14.08	77
1969	101.49	16.45	17.50	10.94	67
1970	100.90	18.58	20.88	10.88	59
1971	112.72	18.72	18.50	11.49	61
1972	131.87	19.31	17.50	12.96	67
1973	109.14	12.32	14.00	8.64	70
1974	76.47	7.89	9.50	6.93	88
1975	100.88	11.80	13.375	7.51	64
1976	119.46	11.19	15.75	8.47	76
1977	104.71	9.01	15.00	8.98	99
1978	107.21	8.17	13.375	6.65	81
1979	121.02	7.5	12.00	6.94	93

Source: Standard & Poor's Trade and Securities Statistics, Security Price Index Record, 1978 Edition; Standard & Poor's Statistical Service, Current Statistics, August, 1979; April, 1980.

\* Price adjusted to reflect two-for-one stock split effective April 29, 1963.

UNION ELECTRIC COMPANY  
COMMON STOCK SALES

<u>Date</u>	<u>Proceeds Per Share</u>	<u>Book Value</u>		<u>Total Proceeds</u>	<u>Number of Shares</u>		
		<u>Actual</u>	<u>(1) Adj. (2)</u>		<u>Actual</u>	<u>If Sold At Adjusted Book Value</u>	<u>Additional Shares</u>
12/74	\$ 8.70	\$15.34	-	\$37,388,500	4,300,000	2,437,320	1,862,680
12/75	12.35	15.13	15.93	45,676,500	3,700,000	2,867,326	832,674
3/77	15.00	15.32	16.40	75,000,000	5,000,000	4,573,171	426,829
9/78	14.52	16.05	17.18	58,080,000	4,000,000	3,380,675	619,325
12/79	11.185	16.15	17.38	61,517,500	5,500,000	3,539,557	1,960,443
12/80	10.135	16.20	17.89	<u>55,742,500</u>	<u>5,500,000</u>	<u>3,115,847</u>	<u>2,384,153</u>
				<u>\$233,405,000</u>	<u>28,000,000</u>	<u>19,913,896</u>	<u>8,086,104</u>

(1) At month end preceding the sale.

(2) Assumes all sales since 12/74 were at book value.  
(Adjusted for prior sales below book value)

COMPARISON OF UE RETURN ON EQUITY  
WITH MOODY'S Aa UTILITY BOND YIELDS

<u>Year</u>	<u>UE Return On Equity</u>	<u>Aa Bond Yields</u>	<u>Reward For Risk</u>	<u>UE Yield on Common Stock</u>	<u>UE Avg. Common Stock Price</u>
1961	13.25%	4.59%	8.66%	3.9%	\$ 22.97
1962	13.11	4.34	8.95	3.9	23.24
1963	14.11	4.35	9.76	3.7	27.07
1964	13.88	4.46	9.42	3.8	27.08
1965	14.34	4.62	9.72	3.8	29.23
1966	13.55	5.57	7.98	4.5	25.21
1967	13.68	5.98	7.70	4.9	24.49
1968	13.16	6.72	6.44	5.4	22.22
1969	12.07	7.88	4.19	5.9	20.26
1970	13.63	7.74	4.89	6.9	18.26
1971	11.04	7.69	3.35	6.5	19.55
1972	8.89	7.42	1.47	7.3	17.63
1973	10.72	7.82	2.90	7.7	16.55
1974	8.94	9.47	-1.53	10.4	12.32
1975	11.98	9.52	2.46	10.7	12.01
1976	12.19	8.66	3.53	9.2	14.62
1977	10.68	8.30	2.38	8.7	15.62
1978	12.61	9.15	3.46	9.7	14.49
1979	10.71	10.48	.23	10.8	13.37
1980	13.11	13.08	.03	12.9	11.47

BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI

In the matter of Union Electric )  
Company of St. Louis, Missouri )  
for authority to file tariffs )  
increasing rates for electric ) Case No. ER-81-180  
service provided to customers in )  
the Missouri service area of the )  
Company. )

AFFIDAVIT OF JERRE E. BIRDSONG

State of Missouri )  
 ) SS  
City of St. Louis )

Jerre E. Birdsong, being first duly sworn on his  
oath states:

1. My name is Jerre E. Birdsong. I reside in St.  
Louis County, Missouri and I am an Economist for Union  
Electric Company.

2. Attached hereto and made a part hereof for all  
purposes is my testimony consisting of pages 1 to 19,  
inclusive, and Exhibits \_\_\_\_\_ (JEB-1) to \_\_\_\_\_ (JEB-6),  
inclusive, all of which testimony and exhibits have been  
prepared in written form for introduction into evidence in  
Missouri Public Service Commission Case No. ER-81-180 on  
behalf of Union Electric Company.

3. I hereby swear and affirm that my answers  
contained in the attached testimony to the questions therein  
propounded are true and correct; that the attached exhibits  
were prepared under my supervision and direction and truly  
and correctly show the matters and things they purport to  
show.

Jerre E. Birdsong

Subscribed and sworn to before me this 3rd day of  
February, 1981.

Margaret S. Heida

MARGARET S. HEIDA  
NOTARY PUBLIC—STATE OF MISSOURI  
ST. LOUIS COUNTY  
MY COMMISSION EXPIRES JANUARY 2, 1982