State of Minnesota
Department of Revenue

In the Matter of the Proposed Rules of the Department of Revenue Governing the Valuation and Assessment of Electric, Gas Distribution and Pipeline Companies (Utility Companies)

Statement of Need and Reasonableness

The above-captioned rules are being proposed in order to update and revise the current Rules and Regulations of the Department of Revenue Relating to Ad Valorem (Property) Taxes. The current rules have been in effect since 1975. They have been revised three times. Once in 1976, and once in 1979 and again in 1982; however, it is the announced intention of the Department of Revenue to revise the rules whenever conditions, economic or otherwise, dictate a need for revision. This intention is clearly expressed in 13MCAR § 1.0001, Introduction, of the current rules, "The methods, procedures, indicators of value, capitalization rates, weighting percents, and allocation factors will be used as described in 13MCAR §§ 1.0003 - 1.0007 for 1982 and subsequent years, or until, in the opinion of the Commissioner of Revenue, different conditions justify a change." (emphasis supplied) It is now the opinion of the Commissioner of Revenue that the rules should be revised.

This document has been prepared as a verbatim affirmative presentation of the facts necessary to establish the statutory authority, need for, and reasonableness of the proposed new rules. It is submitted pursuant to 9MCAR § 2.104 requiring a Statement of Need and Reasonableness.

A Notice of Intent to Solicit Outside Information or Opinions in the preparation of these proposed rules was published in the State Register on March 14, 1983, Volume 7, Number 37, page 1295-96 (7 S.R. 1295). An open forum type discussion meeting was held on January 25, 1983. This meeting was attended by members of the Department of Revenue together with city and county assessors and representatives of various utility companies. A list of those in attendance, the agenda, meeting notes, and correspondence received relative to this meeting is available in the Department of Revenue. Various suggestions and comments made at these meetings were received and duly considered by the agency.

Authority to Adopt Rules

Minn. Stat. § 270.06 (14) states that the ..."Commissioner of Revenue may promulgate rules and regulations for the administration and enforcement of the property tax. Such rules and regulations shall have the force and effect of law..." The above captioned rules are encompassed within this authority.

Further, Minn. Stat. § 270.11, Subd. 1 and 6 gives the Commissioner of Revenue the authority to review, modify, revise, raise or lower the assessed valuation of any real or personal property of any individual, copartnership, company, association or corporation. The Commissioner of Revenue is also charged with the responsibility under Minn. Stat. §§ 273.33, Subd. 2; 273.37, Subd. 2; and 273.38 of assessing the... "personal property, consisting of the pipeline system of mains, pipes and equipment attached thereto, of pipeline companies and others engaged in the operations or business of transporting natural gas, gasoline or other petroleum products by pipelines... transmission lines of less than 69kv, transmission lines of 69kv and above located in an unorganized township and distribution lines, (of electric companies) and equipment attached thereto, having a fixed situs outside the corporate limits of cities... the distribution lines, and the attachments and appurtenances thereto, (of electric companies) used primarily for supplying electricity to farmers at retail...". Such assessments are best discharged through the promulgation of such rules as are being proposed here.

Adoption of Proposed Rules
Need and Reasonableness

The agency is currently proposing only one revision to the existing body of the valorem rules for utility property. That revision concerns 13MCAR § 1.0003 Valuation D. Income approach to valuation.

This approach utilizes the capitalization of income in a mathematical process in an attempt to derive a value which represents the present worth of the future earnings of the property. The capitalization process has two major factors: 1) the income to be capitalized and 2) the captialization rate. We propose to change one of these factors to more accurately reflect current economic conditions.

We currently use three years of net utility operating income as the income to be capitalized. This is the income after expenses, depreciation and taxes, but before interest expense. This level of income is usually referred to as the income developed by the regulatory agency. It excludes all income from operations and investments that are not directly related to the operation of the company. This particular income stream is preferred by most utility appraisers, and has the most acceptance throughout the country.

The agency uses three years of these net utility operating earnings in order to level out the peaks and valleys inherent in income determination. This leveling out provides for a relatively stable value, rather than a value which would vary widely from year to year. At present the three years are weighted 40% for the first year's income, 35% for the second and 25% for the third. This weighting of income provides for the most attention to be paid to the most recent performance of the company and attempts to strike a balance between stable income and the recognition of current economic conditions effecting a company.

A capitalization rate is then applied to this weighted income. The capitalization rate is an anticipated rate of return from an investment; a rate at which income is processed (capitalized) to indicate the probable capital value. Usually this rate is commensurate with the risk of the business venture.

In developing a capitalization rate three basic methods are available. They are:

1. The Summation Method - which uses the "safe rate" (usually that of government bonds) and adds to it an allowance for management, non-liquidity, and risk. This method is usually considered to be the least reliable and is not in common use by appraisers of utility property.

2. The Comparative Method - which computes a capitalization rate by measuring the actions of purchasers in the market place. However, since utilities very seldom sell as a unit there are few market transactions from which a rate can be developed. For this reason this method is rarely used in the field of utility valuation.

3. The Band of Investment Method - which is the combination of the rate applicable to the portion of the capital structure represented by debt with the rate applicable to the portion of the capital structure represented by equity. The rate developed is a weighted average, the weighting representing percentages of the mortgage and equity position or bands of investment. This method, which is currently used by the agency, is the most generally accepted method of developing a capitalization rate for use in the appraisal of utilities.

The computation of the capitalization rate using the band of investment method is done on the basis of an average utility within an industry; that is, all companies within one industry (i.e. electric, gas distribution, pipeline) share the same rate. This is done as a matter of convenience due to the agency's lack of time and personnel. It is common practice for utility appraisers all across the country to apply a single capitalization rate to companies within the same industry.

The information used in the computation of the cap rate is taken from the latest edition of Moody's Public Utility Manual and includes the following techniques:

1. A determination of what percent of the capital structure of the average utility is made up of long term debt, preferred stock and common equity.
2. A determination of the average interest rate for contracted indebtedness, commonly referred to as the embedded cost of debt. This average interest rate will make up the debt portion of the capitalization rate.
3. A determination of the average dividend rate of the outstanding preferred stock. This dividend rate will make up the preferred stock portion of the capitalization rate.
4. A determination of the rate of return for common equity; which will make up the equity portion of the cap rate.
5. The application of the determined rate to the various bands of investment to develop the capitalization rate for the average utility.
6. The final step is to assign a risk factor to each type of utility to establish a cap rate for that particular industry.

Attached to this document is an example of the application of these techniques. You will note that the average utility cap rate as computed is 10%. We have adjusted this rate to allow for risk as follows:

1. Electric utilities - adjusted to 9.75% because they have lower than average interest rates and better than average earnings stability.
2. Gas distribution utilities - no adjustment made. This group represents the average utility.
3. Pipeline companies - adjusted to 10.25% because they have a higher risk factor than the average utility. Pipelines usually pay a slightly higher rate of interest, and because they do not have a monopoly, as do electric and gas companies, their earnings are less stable.

The revision proposed by the agency is occasioned by the fact that the last calculation of the capitalization rate in 1981 - using the same sources and methodology as shown in our Exhibit - resulted in a 9% average utility capitalization rate. As is evidenced by the Exhibit the data now results in the calculation of a 10% average utility capitalization rate.

The agency believes that the amending of the present rules to incorporate these revisions to the current capitalization rates is both reasonable and logical. The major factor causing the proposed changes in the capitalization rates, over those currently in use, is the increase in the interest rates. It is a matter of record that these rates have risen steadily over the past few years.

Interest rates may be advertised which would tend to indicate that our proposed capitalization rates are too low and should be adjusted to even higher levels; however, it must be kept in mind that the interest rates in question are those currently in effect. The income which comprises the income stream is an average of three year's historical income. The capitalization rate proposed by the agency is also based on historical information. It is paramount in appraisal practice to match the correct income stream to the corresponding capitalization rate. In the agency's judgment the rates as now proposed accurately reflect the proper capitalization rate to be applied to the weighted income stream. The combination of these two elements into the income indicator of value will produce an equitable estimate of the worth of a utility. The agency is committed to a policy of review and change, as it witnessed by our introductory statement on page 1 of this document. As economic conditions change, the computation of both the capitalization rate and the income stream may well change. At this time, however, the agency believes the rates as proposed should be adopted.

EXHIBIT I

STATEMENT OF NEED AND REASONABLENESS

CAPITALIZATION RATE WORK-UP

A. The figures used in the study on the capitalization of the average utility were obtained from the Moodys Public Utility Manual Special Features Section and represent historic value figures. The results showed a make-up of 53% debt, 9% preferred stock and 38% common stock for the average utility.

B. The rates used in the Cost of Money Study represent the average of three different kinds of utility bonds. This study considered the imbedded debt of utilities and calculated a rate of 9.12%.

C. The indicated rates shown in the Common Stock Yield and Growth Study represent yields obtained by adding the dividend yield to the percent of earnings per share increase over a ten year moving average. This study not only considers dividend yield but appreciation in per share prices. The average indicated rate was calculated to be 12.29%.

D. The rate shown in Preferred Stock Study is the dividend yield only and does not reflect appreciation in the stock price. The average yield rate is shown as 10%.

E. The resulting capitalization rate calculation was obtained by adding a weighted debt cap rate percentage, a weighted preferred stock cap rate percentage, and a weighted common stock yield percentage.

CAPITALIZATION OF AVERAGE UTILITY WORKSHEET

ALL INFORMATION FROM 1981 MOODY'S PUBLIC UTILITY MANUAL SPECIAL FEATURES SECTION

10 YEAR STUDY - HOW THE AVERAGE UTILITY IS CAPITALIZED

	YEAR	PERCENT OF DEBT	PERCENT OF PREFERRED	PERCENT OF COMMON
Electric Companies	1972	53.8%	12.4%	33.8%
	1973	53.8%	12.4%	33.8%
	1974	55.0%	12.7%	32.3%
	1975	53.5%	12.8%	33.7%
	1976	52.5%	12.9%	34.6%
	1977	50.9%	13.1%	36.1%
	1978	50.5%	12.9%	36.6%
	1979	51.4%	12.7%	35.8%
	1980	51.3%	12.7%	36.2%
	1981	51.8%	11.9%	36.3%
	Average	52.5%	12.7%	34.9%
Transmission Companies	1972	60.4%	6.5%	33.0%
	1973	60.2%	6.3%	33.4%
	1974	59.6%	5.8%	34.6%
	1975	58.3%	5.3%	36.4%
	1976	55.5%	5.5%	39.1%
	1977	51.9%	4.9%	43.2%
	1978	52.4%	5.5%	42.1%
	1979	51.3%	5.3%	42.3%
	1980	51.5%	5.7%	42.8%
	1981	52.1%	4.9%	43.0%
	Average	55.3%	5.6%	39.0%
Distribution Companies	1972	54.0%	9.1%	36.9%
	1973	53.8%	8.5%	37.7%
	1974	56.0%	8.3%	35.8%
	1975	54.9%	8.8%	36.4%
	1976	53.0%	9.4%	37.6%
	1977	51.0%	9.9%	39.1%
	1978	48.3%	10.3%	41.3%
	1979	47.1%	9.8%	43.1%
	1980	47.5%	9.0%	43.5%
	1981	50.2%	7.9%	41.9%
	Average	51.6%	9.1%	39.3%
Rounded Average of Three Industry Averages		53 %	9 %	38 %

10 YEAR PREFERRED STOCK YIELD

YEAR	YIELD IN PERCENT
1972	7.53%
1973	7.50%
1974	9.95%
1975	10.63%
1976	9.12%
1977	8.43%
1978	9.03%
1979	9.76%
1980	12.82%
1981	15.11%
Average	10%

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CAPITALIZATION OF AVERAGE UTILITY WORKSHEET

ALL INFORMATION FROM 1981 MOODY'S PUBLIC UTILITY MANUAL SPECIAL FEATURES SECTIONS

10 YEAR STUDY - COMMON STOCK YIELD AND GROWTH IN EARNINGS

YEAR	AVERAGE MARKET PRICE	DIVIDEND PER SHARE	DIVIDEND YIELD PER CENT	EARNINGS PER SHARE	5 YEAR MOVING % AVERAGE EARNINGS PER SHARE	EARNINGS PER SHARE	INDICATED RATE
1972	$80.20	$4.87	6.07%	$ 7.73	$7.07	3.06%	9.13%
1973	$71.21	$5.01	7.04%	$ 7.55	$7.25	2.54%	9.58%
1974	$48.26	$4.83	10.01%	$ 7.63	$7.39	1.93%	11.94%
1975	$51.25	$4.97	9.70%	$ 7.77	$7.56	2.30%	12.00%
1976	$60.10	$5.18	8.62%	$ 7.86	$7.71	1.98%	10.60%
1977	$67.55	$5.54	8.20%	$ 8.83	$7.93	2.85%	11.05%
1978	$63.54	$5.81	9.14%	$ 8.59	$8.16	2.64%	11.78%
1979	$60.28	$6.22	10.32%	$ 8.95	$8.42	3.19%	13.51%
1980	$54.80	$6.58	12.01%	$ 8.98	$8.64	2.62%	14.63%
1981	$55.41	$6.99	12.62%	$10.46	$9.16	6.02%	18.64%
Average	$61.26	$5.60	9.37%	$ 8.44	$7.93	2.91%	12.29%

15 YEAR COST OF MONEY STUDY

YEAR	AVR. YIELD ALL UTILITY BONDS	AVR. YIELD NEWLY ISSUED BONDS	AVR. YIELD NEW GAS LIGHT & POWER
1967	6.01%	5.35%	6.07%
1968	6.72%	6.41%	6.80%
1969	7.99%	7.07%	7.98%
1970	8.85%	8.76%	8.79%
1971	7.71%	7.47%	7.70%
1972	7.46%	7.16%	7.50%
1973	7.88%	7.45%	7.91%
1974	9.21%	8.36%	9.59%
1975	9.76%	8.90%	9.97%
1976	8.80%	9.06%	8.92%
1977	8.38%	8.17%	8.43%
1978	9.22%	9.21%	9.30%
1979	10.64%	10.39%	10.85%
1980	13.09%	13.23%	13.46%
1981	16.30%	16.28%	16.31%
	9.20%	8.88%	9.30%
Average Cost of Three Money Indicators			9.12%

COMPUTATION OF AVERAGE CAP. RATE		CAP. RATE
1.	Average Utility Debt Cost	9.12%
2.	Average Debt Percent of Capitalization	.53%
3.	Weighted Debt Cap. Rate Factor	4.83%
4.	Aug. Utility Preferred Stock Yield	10. %
5.	Aug. Preferred Stock Percent of Capitalization	9. %
6.	Weighted Preferred Stock Cap. Rate Factor	.9 %
7.	Average Utility Equity Return	12.29%
8.	Aug. Equity Percent of Capitalization	38. %
9.	Weighted Equity Capitalization Rate Factor	4.67%
	Aug. Utility Cap. Rate	10.40%
	Rounded to	10 %

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