

CHAPTER 77  
DETERMINATION OF VALUE OF UTILITY COMPANIES

[Prior to 12/17/86, Revenue Department[730]]

**701—77.1(428,433,437,438) Definition of terms.**

**77.1(1)** The term “*utility company*” shall mean and include all persons engaged in the operating of gasworks, waterworks, telephones, including telecommunication companies and cities that own or operate a municipal utility providing local exchange services pursuant to Iowa Code chapter 476, pipelines, electric transmission lines, and electric light or power plants, as set forth in Iowa Code chapters 428, 433, 437, and 438.

**77.1(2)** The term “*unit value*” or “*unit market value*” shall mean the market value arrived at by using the appraisal method of valuing an entire operating property, considered as a whole and capable of performing the function for which it was created, such as (by way of illustration and not limitation) (1) generating, transmitting and distributing electricity; or (2) transporting or distributing natural gas.

**77.1(3)** The term “*operating property*” shall mean all property owned by or leased to a utility company, not otherwise taxed separately, made nontaxable by law, or property leased to companies valued and assessed pursuant to Iowa Code chapter 428, which is necessary to and without which the utility could not perform the activities for which the utility is formed, such as (by way of illustration and not limitation) (1) generating, transmitting and distributing electricity; or (2) transporting or distributing natural gas. With regard to property whose identity as “operating” or “nonoperating” property is not clearly ascertainable, the property shall be considered operating property if the utility could not reasonably be expected to perform the referenced activities in the absence of such property.

**77.1(4)** The term “*nonoperating property*” shall mean all property owned by a utility not defined by subrule 77.1(3) as “operating property.”

**77.1(5)** The term “*comparable sales*” shall mean actual sales transactions, between willing buyers and willing sellers, neither being under any compulsion to buy or sell, of property which is similar in purpose, function and design to the property to which the comparison is being made. Where the determination of value is being made, the sale of a portion of a unit which is nominally similar in purpose and function to the unit being valued shall not be considered a comparable sale, absent proof by evidence other than the terms of the sale itself, that the sales price was based on some unit of measurement which is common both to the property sold and the property being valued and which is not affected by the fact that less than the entire unit is being sold, such as (by way of illustration and not limitation) the price per square foot of the property.

**77.1(6)** The term “*income approach to unit value*” shall mean the estimate of unit market value obtained by dividing an appropriate income stream by an appropriate discount rate.

**77.1(7)** The term “*stock and debt approach to unit value*” shall mean the estimate of unit market value determined by combining the market value of the stock, debt, current liabilities, other liabilities, including leases, except those leases of companies valued and assessed pursuant to Iowa Code chapter 428, and deferred credits associated with the operating property of a utility company.

**77.1(8)** The term “*cost approach to unit value*” shall mean the estimate of value determined by combining the original cost less a depreciation allowance for the operating property of a utility company.

**77.1(9)** The term “*respondent*” shall include the utility company whose property is to be valued.

**77.1(10)** The term “*leased assets*” shall mean both operational and capital leases.

**77.1(11)** The term “*original cost*” shall mean the actual cost of the property to its present owner, not the first cost at the time it was originally constructed and placed in service.

**77.1(12)** “*Long distance telephone company*” means an entity that provides telephone service and facilities between local exchanges and has been classified as such by the utilities board of the department of commerce, but does not include a cellular service provider or a local exchange utility holding a certificate issued under Iowa Code section 476.29(12). The rules contained in 701—Chapter 71, rather than this chapter, apply to the assessment of long distance telephone company property first assessed for taxation on or after January 1, 1996.

This rule is intended to implement Iowa Code chapters 428, 437, and 438; section 433.12 as amended by 1999 Iowa Acts, chapter 63; and Iowa Code section 476.1D(10).

**701—77.2(428,433,437,438) Filing of annual reports.**

**77.2(1)** Annual reports required to be filed by the reporting utility company shall be on forms prescribed and supplied by the department. It shall be the responsibility of the utility company to obtain the forms supplied by the department.

**77.2(2)** Additional schedules or attachments submitted by respondent shall be identified as to subject matter, shall be typed on paper of similar size to that used in the annual report, and all data contained in the schedules or attachments shall be adequately explained and documented as to source. When such additional schedules or attachments are submitted, they shall be considered part of the annual report.

**77.2(3)** The director may require the filing of additional information if deemed necessary. The request for additional information shall be answered completely and in accordance with instructions therein specified. Additional information required shall be considered part of the annual report.

This rule is intended to implement Iowa Code sections 428.23, 433.1, 433.2, 437.2, 437.4, 437.14, 438.3, 438.4, 438.5 and 438.6.

**701—77.3(428,433,437,438) Comparable sales.** Sale prices of comparable property in normal transactions shall be taken into consideration in arriving at its market value. In the event comparable sales are not available, the market value of operating property shall be determined by utilizing the three recognized unit approaches to value (i.e., stock and debt approach, income capitalization approach and the cost approach).

This rule is intended to implement Iowa Code sections 428.28, 433.1, 433.2, 437.2, 437.4, 437.14, 438.3, 438.4, 438.5 and 438.6.

**701—77.4(428,433,437,438) Stock and debt approach to unit value.**

**77.4(1)** The stock and debt approach to unit value estimates the market value of the operating property by combining the market values of the common stock, preferred stock, debt, current liabilities, other liabilities, leases, and deferred credits associated with the operating property of the utility company, on the basis that the market value of these items may be used as a surrogate for the market value of the operating property itself.

**77.4(2)** The market value of the long-term debt associated with the operating property shall be calculated by first determining a ratio, based on book values, whose numerator shall be the operating property and whose denominator shall be the total property of the utility company. This ratio shall then be multiplied times the gross market value of the long-term debt and the result obtained shall be the market value of the long-term debt associated with the operating property. The market value of publicly traded debt shall be determined by utilizing an average of the monthly high and low value of the debt for the 12 months preceding the valuation date. The values to be utilized shall be obtained by reference to any acceptable reporter of the market on which the securities are traded. If all or some of the securities are not publicly traded, the value of the securities shall be determined by appropriate comparable securities. The comparable securities shall be publicly traded and shall have a similar maturity date and coupon rate, as well as risk indicators similar to the untraded security. In each instance, the utility company shall provide the department a statement of the market value of all securities and an explanation of how that market value was derived, including the identity of any comparable securities utilized. In the event that any utility is unable to utilize the foregoing rule to value its securities, it may provide the department with its own determination of the fair market value of its untraded securities together with a complete explanation of why the foregoing rule was not used and a detailed explanation of the method used.

**77.4(3)** The market value of the preferred stock associated with the operating property shall be calculated by first determining a ratio, based on book values, whose numerator shall be the operating property and whose denominator shall be the total property of the utility company. This ratio shall then be multiplied times the gross market value of the preferred stock and the result obtained shall be the market value of the preferred stock associated with the operating property.

The market value of publicly traded shares of preferred stock shall be determined by utilizing an average of the monthly high and low value of the preferred stock for the 12 months preceding the valuation date. The values to be utilized shall be obtained by reference to any acceptable reporter of the market on which the preferred stock is traded. If all or some series of the preferred stock are not publicly traded, the value of such preferred stock shall be determined by appropriate comparable securities. The comparable securities shall be publicly traded and shall have the same or a similar dividend rate, as well as risk indicators similar to the untraded preferred stock. In each instance, the utility company shall provide the department a statement of the market value of its preferred stock and an explanation of how that market value was derived, including the identity of any comparable securities utilized. In the event that any utility is unable to utilize the foregoing rule to value its securities, it may provide the department with its own determination of the fair market value of its untraded securities together with a complete explanation of why the foregoing rule was not used and a detailed explanation of the method used.

**77.4(4)** The market value of the common equity of a utility company associated with the company's operating property shall be determined by capitalizing the income available to the common equity holders from the operating property, by an appropriate common equity return rate, all of which shall be determined as follows:

*a.* The calculation of the income to be capitalized shall begin with the utility company's net income after taxes but before interest charges and preferred dividends for the 12-month period preceding the valuation date. The net income after taxes, but before interest charges and preferred dividends, shall be determined from the utility company's regulatory report, or if no regulatory report is filed, from the audited financial statements of the utility company. In the event that the respondent has no income or has negative income, an alternative method may be utilized to estimate the market value of the common equity.

*b.* For rate base regulated companies which do not earn a return on construction-work-in-progress, the income determined in subrule 77.4(4) shall be increased by the amount of income associated with the construction-work-in-progress which will be placed into service within one year of the assessment date. The income associated with the construction-work-in-progress shall be determined by multiplying the cost of said construction by the latest overall cost of capital as determined by the regulatory agency.

*c.* The income determined in 77.4(4) "a" shall be further reduced by that portion of the preferred dividends serviced by the income generated by the operating property, which shall be calculated by multiplying the total preferred dividend requirement by the ratio determined in 77.4(3).

*d.* The income determined in 77.4(4) "a" shall be further reduced by that portion of the debt service provided by the income generated by the operating property, which shall be calculated by multiplying the total debt service by the ratio determined in 77.4(2).

*e.* If there are any other interest payments required, a determination shall be made as to whether the underlying obligation was used to purchase operating or nonoperating assets. If no direct determination can be made, the interest payment shall be allocated in the same fashion as the debt service and preferred dividends. If the underlying obligation can be shown to be associated particularly, or in some specific proportion, to operating or nonoperating property, the interest payment shall be allocated either entirely or in such proportion to operating or nonoperating property. It shall be the obligation of the utility company, in its reports to the department, to identify and detail any interest payments which are particularly associated with operating or nonoperating property, and if the utility company fails to do so, the department may determine that all such payments may be allocated between operating and nonoperating property in the same ratio as is the debt service and preferred stock dividends (see subrules 77.4(2) and 77.4(3)).

*f.* The income determined in 77.4(4) "a" shall be adjusted by deducting any net income included therein received from nonoperating property and, conversely, the referenced income shall be increased to account for any net loss created by any nonoperating property.

g. Any extraordinary item affecting the income determined herein shall be eliminated in the calculation of the income shown under this rule. Any construction-work-in-progress not placed into service within one year of the assessment date shall be separately valued by the department.

h. The equity rate of return for the utility company shall be determined by the use of the capital asset pricing model although where appropriate discounted cashflow model (commonly called the Gordon Growth Model -  $r = \frac{D_1}{P_0} + g$ ) may be utilized as an alternative.

$P_0$

Only in circumstances where these models are not able to be utilized will reliance be placed on a risk premium model or upon an earnings-price ratio, or other similar model, for determining the expected market rate of return on equity.

i. The income attributable to operating property available to the common equity holder as determined in 77.4(4) "a" to "g" shall then be divided by the equity rate as determined in 77.4(4) "h," and the result shall be the market value of the common equity associated with the operating property.

**77.4(5)** In the event the utility company has entered into leases of operating property, the market value of the property leased shall be determined by calculating the net present value of the leases, which shall be accomplished by discounting the future lease payments for each lease. The following is offered as an illustration of the calculation of such market value:

Length of Lease	Annual Lease Payments
1. Lease (a) 5 years	\$1,500,000
2. Lease (b) 7 years	\$ 800,000
3. Lease (c) 3 years	\$ 120,000
Net present value of leases (assuming 8 percent rate)	
Lease (a) = $1,500,000 \div (1.08)^1 + 1,500,000 \div (1.08)^2 \dots 1,500,000 \div (1.08)^5$	
Lease (b) = $800,000 \div (1.08)^1 + 800,000 \div (1.08)^2 \dots 800,000 \div (1.08)^7$	
Lease (c) = $120,000 \div (1.08)^1 + 120,000 \div (1.08)^2 \dots 120,000 \div (1.08)^3$	
Net Present Value of Lease (a)	= \$ 5,989,065
Net Present Value of Lease (b)	= \$ 4,165,096
Net Present Value of Lease (c)	= \$ <u>309,251</u>
Total Lease Values	<u>\$10,463,412</u>

The discount rate shall be equal to the utility company's overall market cost of capital.

**77.4(6)** In the event the utility company has other sources of capital, such as (by way of illustration and not limitation) current liabilities, accumulated deferred income taxes and accumulated investment tax credits which cannot be identified as having been utilized to purchase specific assets, the market value of such sources of capital shall be allocated between operating and nonoperating assets in the same manner as long-term debt or preferred stock (see subrules 77.4(2) and 77.4(3)). If any such source of capital was created specifically for the purchase of property which can be identified as operating property or nonoperating property, the utility company must identify such sources of capital in their annual report to the department, together with the appropriate evidence of such. If the utility company fails to provide such information, the department may determine that such sources of capital may be allocated in the same manner as long-term debt or preferred stock (see subrules 77.4(2) and 77.4(3)). The market value of any such source of capital, in the absence of evidence to the contrary submitted by the utility with its annual report, shall be the book value.

**77.4(7)** The value determined by summing the portions of the enumerated sources of capital associated with the operating property of the utility company provided in subrules 77.4(2) to 77.4(6) shall be the unit value of the operating properties determined by the stock and debt approach to unit value.

This rule is intended to implement Iowa Code sections 428.29, 433.4, 437.6, 437.7, 437.14 and 438.14.

**701—77.5(428,433,437,438) Income capitalization approach to unit value.**

**77.5(1)** The income capitalization approach to unit value estimates the market value of the operating property by dividing the income stream generated by the operating assets by a market derived capitalization rate based on the costs of the various sources of capital utilized or available for use to purchase the assets generating the income stream. The purpose and intent of the income indicator of value is to match income with sources of capital and, therefore, every source of capital utilized or available to be utilized to purchase assets should be reflected in the capitalization rate determination as well as all operating income.

In the event the utility company has no income or has a negative income, the indicator of value set forth in this subrule shall not be utilized.

If the utility company is one which is not allowed to earn a return on assets purchased with sources of capital such as the company's deferred income taxes, the income will not reflect the earnings on those assets, and as a consequence, a separate adjustment to the income indicator of value must be made to account for the value of those assets. In such instances, the income indicator of value shall be increased by an amount equal to the book value of the source of capital involved, such as the accumulated deferred income taxes. If any other operating property is clearly not income producing, therefore, not reflected in the income stream, the value of that asset shall be determined separately and added to the value of the other operating property as determined using the income indicator of value. The capitalization rate shall be adjusted, if necessary, for the market rate of return for the sources of capital utilized to purchase such non-income-producing properties where the sources can be clearly identified, otherwise the cost of the sources of capital shall be presumed to be equal to the overall market weighted costs of the identified sources of capital.

**77.5(2)** If the utility company is one which can earn a return on assets purchased with sources of capital such as the company's deferred income taxes, the income will reflect the earnings on those assets, and as a consequence, a separate adjustment to the capitalization rate is required. The capitalization rate shall be determined by utilizing, where appropriate, market rates of return weighted according to a market-determined capital structure, with the exception of deferred credits whose market value shall be equal to its value on the company's books and whose cost shall be zero. All sources of capital shall be considered in the capital structure as well as market costs associated with each source of capital, otherwise, the cost of the sources of capital shall be presumed to be equal to the overall market-weighted costs of the identified sources of capital. The following is an example of the application of this rule:

	(1)	(2)	(3)	(4)
	Market	Market	% to	Component
	Value	Rate of	Total	(Col. 2 ×
		Return		Col. 3)
				Col. 3)
Common Stock	60,000	15%	62.50	9.38
Preferred Stock	5,000	13%	5.21	.68
Debt	25,000	12%	26.04	3.12
Deferred Credits	6,000	—0—	6.25	—0—
	<u>96,000</u>		<u>100.00</u>	<u>13.18</u>

This rule is intended to implement Iowa Code sections 428.29, 433.4, 437.6, 437.7, 437.14 and 438.14.

**701—77.6(428,433,437,438) Cost approach to unit value.** The cost approach to unit value shall be determined by combining the cost of the operating properties of the utility and deducting therefrom an allowance for depreciation calculated on a straight-line basis. Other forms of depreciation may be deducted if found to exist.

This rule is intended to implement Iowa Code sections 428.29, 433.4, 437.6, 437.7, 437.14 and 438.14.

**701—77.7(428,433,437,438) Correlation.** In making a final determination of value the director may give consideration to each of the methodologies described in these rules, the use of which will result in the determination of the fair and reasonable market value of the utility company's entire operating property. Generally, for other than pipeline companies, the stock and debt indicator of value shall be considered to be the most useful, the income indicator the next most useful and the cost indicator the least useful. If circumstances dictate that a particular indicator is inappropriate or less reliable for a particular company, the correlation of the indicators of value shall be adjusted accordingly. The correlation for pipeline companies will consider the cost indicator to be the most useful, the income indicator the next most useful, and the stock and debt indicator the least useful. In making the final determination of value, the director will weigh the stock and debt indicator of value at 10 percent, the income indicator of value at 40 percent and the cost indicator of value at 50 percent.

This rule is intended to implement Iowa Code sections 428.29, 433.4, 437.6, 437.7, 437.14 and 438.14.

**701—77.8(428,433,437,438) Allocation of unit value to state.**

**77.8(1) Allocation by director.** The director shall allocate that portion of the total unit value of the utility company's operating property to the state of Iowa based on factors which are representative of the ratio that the utility company's property and activity in the state of Iowa bear to the utility company's total property and activity. These factors are:

- a. Gross operating property weighted 75 percent, and
- b. Gross operating revenues, or MCF miles, or barrel miles weighted 25 percent. The selection of the property and use factor to be utilized shall depend on the type of utility being valued.

**77.8(2) Alternative methods.** In the event that the allocation prescribed by subrule 77.8(1) does not fairly and reasonably allocate unit value of the utility company's operating property to the state of Iowa, the director shall consider such other factors as the director deems appropriate by the exercise of sound appraisal judgment.

This rule is intended to implement Iowa Code sections 428.29, 433.4, 437.6, 437.7, 437.14 and 438.14.

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