Department of Revenue

Adopted Permanent Rules Relating to Revenue; Property Equalization; Public Utility Valuation

Rules as Adopted

8100.0200 INTRODUCTION.

~~On-October-19,-1973,-the-Minnesota-Supreme-Court-in Independent-School-District-No.-99,-et-al.-v.-Commissioner-of Taxation,-297-Minn.-378,-ruled-that-in-estimating-the-market value-of-utility-properties-for-ad-valorem-tax-purposes,-the assessing-authorities-must-consider-every-element-and-factor affecting-market-value.--The-assessment-formula-used-to-value operating-utility-property-since-1962,-based-solely-on-the original-cost-less-limited-depreciation-and-commonly-known-as the-"Hatfield-Formula,"-was-thus-invalidated-as-a-rule-of general-application.~~

~~These-rules-are-promulgated-to-fill-that-void-and-reflect the-manner-in-which-the-value-of-utility-property-will-be estimated-by-utilizing-data-relating-to-the-cost-of-the-property and-the-earnings-of-the-company-owning-or-utilizing-the-property.~~

~~Since-the-commissioner-of-revenue-is-by-statute-the assessor-of-some-of-the-utility-property-in-the-state-of Minnesota-and-has-supervisory-powers-over-all-assessments-of property,-and-may-raise-or-lower-values-pursuant-to-Minnesota Statutes,-section-270.11,~~ The commissioner <u>of revenue</u> will estimate the valuation of the entire system of a utility company operating within the state. The entire system will be valued as a unit instead of valuing the component parts, ~~and~~ <u>utilizing data relating to the cost of the property and the earnings of the company owning or operating the property.</u> The resulting valuation will be allocated or assigned to each state in which the utility company operates. Finally, by the process of apportionment, the portion allocated to Minnesota will be distributed to the various taxing districts within the state.

Most of the data used in the valuation, allocation, and apportionment process will be drawn from reports submitted to the Department of Revenue by the utility companies. These reports will include Minnesota Department of Revenue Annual Utility Reports (UTL forms), Annual Reports to the Federal Energy Regulatory Commission and Annual Reports to the Interstate Commerce Commission. Periodic examinations of the supporting data for these reports will be made by the Department of Revenue.

The methods, procedures, indicators of value, capitalization rates, weighting percents, and allocation factors will be used as described in parts 8100.0300 to 8100.0600 for 1986 and subsequent years~~, or until, in the opinion of the commissioner of revenue, different conditions justify a change~~.

As in all property valuations the commissioner of revenue reserves the right to exercise his or her judgment whenever the circumstances of a valuation estimate dictate the need for it.

8100.0300 VALUATION.

Subpart 1. **General.** Because of the unique character of public utility companies, such as being subject to stringent government regulations over operations and earnings, the traditional approaches to valuation estimates of property (cost, capitalized income, and market) must be modified when utility property is valued. Consequently, for the 1986 and subsequent assessment years, ~~until economic and technological factors dictate a change,~~ the value of utility company property will be estimated in the manner provided in this chapter.

Subp. 2. [Unchanged.]

Subp. 3. **Cost approach.** The cost factor to be considered in the utility valuation formula is the original cost less depreciation of the system plant, plus improvements to the system plant, plus the original cost of construction work in progress on the assessment date. The original cost of any leased operating property used by the utility must be reported to the commissioner in conjunction with the annual utility report. If the original cost of the leased operating property is not available, the commissioner shall make an estimate of the cost by capitalizing the lease payments. Depreciation will not be allowed on construction work in progress. Depreciation will be allowed as a deduction from cost in the amount allowed on the accounting records of the utility company, as such records are required to be maintained by the appropriate regulatory agency.

Depreciation, however, shall not exceed the prescribed percentage of cost: for electric companies, 20 percent; for gas distribution companies, 50 percent; and for pipeline companies, 50 percent. If the amount of depreciation shown on the company's books exceeds these percentages, the company may deduct ten percent of the excess.

A modification to the cost approach to value will be considered by the commissioner when valuing electric utility property. The original cost of an electric utility's major generating plants will be increased if the cost of the plant falls below a certain standard. The standard to be used will be a national average of the cost per kilowatt of installed capacity. The cost per kilowatt of installed capacity is the total construction cost of the generating plant divided by the number of kilowatts the plant is capable of producing. The national average to be used will be computed by totaling the construction costs, excluding the cost of land, for major generating plants within the 48 contiguous United States. The total cost of the plants will be divided by the total generating capacity of the same plants to arrive at an average cost per kilowatt of installed capacity. A separate average will be computed for each type of plant: gas turbine, hydroelectric, and steam-electric. The plants used in the calculation will exclude nuclear electric generating plants.

The information used to compute the average will be drawn from the latest issue of the United States Department of Energy publication, Historical Plant Cost and Annual Production Expenses for Selected Electric Plants. All plants included in this publication will be used in the computation of the national average by type of plant.

An example of this computation of the national average cost per kilowatt of installed capacity is as follows:

Steam-Electric Generating Plants

Plant	Plant Cost Excluding Land	Plant Capacity
A	$ 14,000,000	100,000 kw
B	13,000,000	90,000 kw
C	17,000,000	110,000 kw
D	14,500,000	80,000 kw
E	18,000,000	120,000 kw
F	10,000,000	70,000 kw
G	19,000,000	130,000 kw
H	9,000,000	60,000 kw
I	20,000,000	140,000 kw
J	8,000,000	50,000 kw
	$142,500,000	950,000 kw

Total plant cost ($142,500,000) divided by total plant capacity (950,000 kw) equals $150 average cost per kilowatt of installed capacity.

The national average cost per kilowatt of installed capacity will be compared to the specific cost per kilowatt of installed capacity for each of the major generating plants owned by the utility being valued. If the national average cost per kilowatt is greater than the subject plant cost, the subject plant will have additional dollars incorporated into its cost in order to raise its cost per kilowatt to the national average. If the subject plant's cost per kilowatt equals or exceeds the national average, no cost will be added.

The following example illustrates this procedure:

XYZ Utility

Steam-Electric Generating Plants

1.	Plant	#1	#2
2.	Installed Capacity	100,000 kw	50,000 kw
3.	Year in Service	1970	1950
4.	Cost of Plant (Exclusive of Land)	$15,200,000	$5,000,000
5.	Specific Plant Cost per kw	$152	$100
6.	National Average Cost per kw	$150	$150
7.	Deficiency	none	$ 50
8.	Additional Cost (Line 7 x Line 2)	none	$2,500,000

This additional cost to be added to the original cost of the specific plant will be reduced by an allowance for pollution control equipment and an allowance for obsolescence.

The allowance for pollution control equipment will be computed annually by totaling the construction costs, exclusive of land, of all major generating plants within Minnesota by type of plant. A total will also be made of the cost of the equipment in these plants which has been approved for tax exempt status in accordance with Minnesota Statutes, section 272.02, subdivision 1, clause (9). This total will also be computed by type of plant. The total of the approved pollution control equipment will be divided by the total construction cost, exclusive of land, of the plants in order to calculate a percentage. This percentage will be the ratio of dollars spent for pollution control equipment to total dollars spent to construct a specific type of power plant. This percentage will then be used to reduce the gross additional cost to be added to the cost of the specific generating plant. An example of this process is as follows:

Steam-Electric Plants Within Minnesota

Plant	Plant Cost Excluding Land	Cost of Approved Pollution Control Equipment
A	$15,200,000	$1,500,000
B	10,000,000	1,000,000
C	5,000,000	700,000
D	20,000,000	2,000,000
E	16,500,000	1,470,000
	$66,700,000	$6,670,000

Total cost of approved pollution control equipment ($6,670,000) divided by total plant cost ($66,700,000) equals ten percent ratio of pollution control equipment expenditures to total expenditures for generating plant construction.

XYZ Utility

Steam-Electric Plant #2

1. Additional Cost Due to Computation of Average Cost per kw of Installed Capacity	$2,500,000
2. 10% Allowance for Pollution Control Equipment	250,000
3. Additional Cost to be Added after Adjustment for Pollution Control Equipment	2,250,000

The allowance for obsolescence which will be applied to the additional plant construction cost will be computed annually for hydroelectric and steam-electric generating plants. The information needed to compute the obsolescence factors will be drawn from the same publication that is used to compute the national average cost per kilowatt of installed capacity figure. Gas turbine plants will not have any obsolescence allowance applied to the additional cost added to the plants.

The obsolescence allowance for hydroelectric plants will be calculated through the use of a "plant factor." The plant factor is computed by dividing the number of kilowatt hours a generating plant actually produced in a year by the number of kilowatt hours the plant was capable of producing. The plant factor is normally expressed as a percentage. The mathematical expression of this factor is: net generation (kwh) divided by annual installed capacity (hours in a year multiplied by installed capacity (kw)). A standard plant factor will be computed for hydroelectric plants by averaging the plant factors of the ten plants with the highest plant factors in the average cost per kilowatt of installed capacity study. This standard will then be compared to an average of the most recent three years' plant factor of the subject plant. The amount the subject plant deviates from the standard is the amount of obsolescence which will be applied to the added cost.

An example of this obsolescence allowance computation is shown below.

Hydroelectric Plants

Plant	Net Generation kwh (000)	Plant Capability kwh (000)	Plant Factor
A	400,150	755,000	53 %
B	300,040	577,000	52 %
C	250,000	480,000	52 %
D	600,000	1,250,000	48 %
E	896,000	1,600,000	56 %
F	700,000	1,400,000	50 %
G	507,000	975,000	52 %
H	450,000	1,000,000	45 %
I	376,000	800,000	47 %
J	810,000	1,800,000	45 %
		Average	50 %

XYZ Utility

Hydroelectric Plant #4

Year	Net Generation kwh (000)	Plant Capability kwh (000)	Plant Factor
19XX	400,000	1,000,000	40 %
19XX	500,000	1,000,000	50 %
19XX	450,000	1,000,000	45 %
		Average	45 %

Hydroelectric plant #4 plant factor (45 percent) divided by standard plant factor (50 percent) equals 90 percent. Therefore, hydroelectric plant #4 deviates from the standard by ten percent, or is ten percent obsolete.

The obsolescence allowance for steam-electric generating plants will be computed annually using two indicators. The first indicator will be the plant factor. The plant factor for steam-electric plants will be computed and applied in the same manner as the computation specified for hydroelectric plants. The only difference will be that the information used for the computation will be drawn from the latest Fossil-Fueled Steam-Electric Plant Section of the latest Historical Plant Cost and Annual Production and Expenses for Selected Electric Plants publication rather than the Hydro-Electric Plant section. Plant factors of the ten best steam-electric generating plants within the study period will be averaged. This average will be compared to the most recent three-year average plant factor for the subject plant. The subject plant's deviation from the standard plant factor is the amount of indicated obsolescence.

The second indicator which will be used to compute an obsolescence allowance for steam-electric generating plants will be a thermal efficiency factor. The source of information for this computation will also be the latest issue of the United States Department of Energy's publication, Historical Plant Cost and Annual Production Expenses for Selected Electric Plants, Fossil-Fueled Steam Electric Plant Section. Thermal efficiency for a generating plant is measured by the number of British thermal units (Btu's) required to produce one kilowatt hour. This efficiency rating can be obtained by dividing the number of kilowatt hours produced by a generating plant by the number of Btu's needed to produce this power. The number of Btu's used can be obtained by multiplying the units of fuel burned by the generating plant - tons of coal, gallons of oil, or cubic feet of gas - by the average Btu content of the fuel unit. The standard thermal efficiency factor will be computed by averaging the thermal efficiency factor of the ten most efficient steam-electric generating plants within the study period used to

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compute the average cost per kilowatt of installed capacity. This standard thermal efficiency factor will then be compared to the thermal efficiency factor of the subject plant. The amount the subject plant deviates from the standard is the amount of obsolescence indicated by this factor.

The two obsolescence figures for the subject plant as indicated by both the plant and thermal efficiency factors will then be averaged. This resulting average is the obsolescence allowance which will be applied to the cost added to the subject plant as a result of the average cost per kilowatt of installed capacity computation. In no instance shall the original cost of a generating plant be reduced by an allowance for obsolescence unless its cost is increased through the use of the average cost per kilowatt of installed capacity computation. For the 1986 and subsequent assessments the additional cost after adjustments for obsolescence to be added to the cost indicator of value will be multiplied by 85 percent.

The following examples illustrate computation of the standard thermal efficiency factor; obsolescence indicated by the application of this factor to the subject plant; average obsolescence for steam-electric generating plants; and obsolescence allowance adjustment of the added cost due to the use of the average cost per kilowatt of installed capacity for the subject plant.

Steam-Electric Generating Plants

Plant	Net Generation kwh (Millions)	Btu's Used (Millions)	Btu's per kwh
A	2,000	18,400,000	9,200
B	6,000	53,400,000	8,900
C	8,000	72,000,000	9,000
D	5,000	45,500,000	9,100
E	3,000	26,400,000	8,800
F	1,000	9,000,000	9,000
G	4,000	36,600,000	9,150
H	9,000	80,550,000	8,950
I	7,000	61,950,000	8,850
J	5,000	45,250,000	9,050
		Average	9,000

XYZ Utility Company

Steam-Electric Plant #2

Net Generation kwh (Millions)	Btu's Used (Millions)	Btu's per kwh

2,000	21,600,000	10,800

Steam-electric plant #2 thermal efficiency factor (10,800 Btu's per kwh) divided by standard thermal efficiency factor (9,000 Btu's per kwh) equals 120 percent. Therefore, steam-electric plant #2 deviates from the standard by 20 percent or is 20 percent obsolete.

XYZ Utility Company

Steam-Electric Plant #2

1.	Obsolescence Indicated by Plant Factor	10%
2.	Obsolescence Indicated by Thermal Efficiency Factor	20%
3.	Obsolescence Allowance (Average of 1 and 2)	15%
4.	Additional Cost due to Computation of Average Cost per kw of Installed Capacity	$2,500,000
5.	15% Obsolescence Allowance	375,000
6.	Additional Cost to be Added after Adjustment for Obsolescence	2,125,000
7.	Adjustment factor	85%
8.	Net additional cost to be added	$1,806,250

The cost indicator of value computed in accordance with this subpart will be weighted for each type of utility company as follows: electric companies, 85 percent; gas distribution companies, 75 percent; and pipeline companies, 75 percent.

The following example illustrates how the cost indicator of value would be computed for an electric company:

1.	Utility Plant				$200,000,000
2.	Construction Work in Progress				5,500,000
3.	Additional Value from Average Cost Per KW Computation After Factoring				2,000,000
4.	Total Plant				207,500,000
5.	Nondepreciable Plant (Land, Intangibles, C.W.I.P.)	$ 17,500,000			
6.	Depreciable Plant	190,000,000			
7.	Book Depreciation		$40,000,000		
8.	Maximum Depreciation (20%)		38,000,000		
9.	10% Excess Depreciation Allowance		200,000		
10.	Total Allowable Depreciation			$ 38,200,000	
11.	Total Cost Indicator of Value			169,300,000	

Any company for which a modification is made under this subpart due to the average cost per kilowatt adjustment being made to original cost of a plant or plants located in Minnesota shall have an alternative cost indicator computation made without giving effect to the average cost per kilowatt adjustment of such plant or plants.

Subp. 4. to 7. [Unchanged.]

Subp. 8. **Retirements.** Utility operating property may be retired from the utility system while still in place if certain criteria are met:

A. The property must be physically disconnected from the utility system. In the case of electrical plants, the disconnection or dismantling of wires, cables, connectors, or transformers would constitute physical disconnection. In the case of pipelines, the disconnection of pipes, valves, or fittings would be evidence of physical disconnection.

B. An affidavit of retirement should be filed by the utility with the commissioner at least 30 days prior to the assessment date. This affidavit shall indicate the facility being retired and the date it was taken out of service.

The utility should make every effort to inform the commissioner of pending major retirements. The commissioner in turn shall notify the county assessor of impending major retirements as soon as this information becomes available to the department.

Utility property which is retired in place shall continue to be taxed for ad valorem purposes. However, its market value shall not be determined on the basis of its value as utility operating property.

If a utility should choose to temporarily retire a facility pending the development of an alternate fuel, greater demand, increased source of supply, or another valid reason, the cost of this facility must be transferred to the appropriate regulatory agency's account entitled "Held for Future Use." Standby facilities will not be considered to be temporarily retired unless their costs are carried in this account. Temporarily retired utility facilities will be valued taking into account a number of factors including age of the facility, type of facility, amount of maintenance and additional costs needed to restore the facility to operational status, length of retirement, and earning potential of the facility. In no instance shall a temporarily retired facility be valued lower than if the facility were considered nonoperating utility property.

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