



STATE TAX COMMISSION OF MISSOURI ASSESSOR MANUAL

CHAPTER:

RURAL ELECTRIC COOPERATIVES

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7.1 RURAL ELECTRIC COOPERATIVE (REC'S)

The following guidelines, developed by the State Tax Commission, are furnished to each county assessor for the valuation of REC's. The Commission is providing these guidelines to assist county assessors in valuing rural electric cooperatives. These guidelines are intended to be supplemental to the appraiser's knowledge and available resources. It remains the responsibility of each county assessor to defend the final estimates of market value.

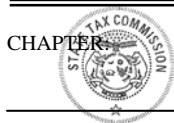
1. Overview

Electric cooperatives began in the 1930's when President F. D. Roosevelt, by executive order, authorized loans to anyone who would undertake extension of electric service to people in rural areas. Soon after, consumer-owned utilities were organized because existing utility companies were not applying for those low interest loans. The Congress extended this executive order by enacting the Rural Electrification Act (R.E.A.) in 1936. Presently, there are more than 1,000 rural electric cooperatives in the United States. Missouri has approximately 48 of these electric cooperative systems providing service to consumers.

There are several major differences between rural electric cooperatives and investor owned electric utilities (IOE's). Seasonal demand and larger investment in distribution facilities required per customer are unique to cooperatives. This is primarily caused by the low density of customers in rural areas. Most electric co-ops sell the vast majority of their power to rural customers while the IOE's sell a larger percentage of power to commercial and industrial customers. The low customer density and low percentage of revenue generating commercial and industrial customers are forms of economic obsolescence.

An electric cooperative is nonprofit motivated and, thus, it is difficult to arrive at a capitalized income value. REC's rates are determined based on operating expenses, largely made up of the cost of power and the needed funds required to service the debt. Because of the relationship of REC rates to expenses, the operating margin or net income is nominal and does not provide a market rate of return on capital. The problem involved is in both measuring an income stream and arriving at a capitalization rate of a co-op, making the capitalized income approach difficult to perform.

The market or comparable sales approach is also difficult to perform due to the scarcity of sales.



With such limited sales taking place, this approach would be seldom used for appraising rural electric cooperatives.

Therefore, the cost approach seems to be the most reliable indicator of value. Net distribution plant less obsolescence is the methodology to be examined in detail for the REC's valuation. Net transmission or production plant less obsolescence is used for generation and transmission cooperatives.

The first section of these guidelines may be used by any county wishing to develop a value per mile of the distribution assets for a Rural Electric Distribution Cooperative. The second section of the guidelines describe the valuation process for the miles of line, transformers and production equipment of a Generation and Transmission cooperative. The county will then have to develop market value estimates for buildings and equipment not included in plant accounts, i.e. office buildings, land, construction-work-in-progress, motor vehicles, materials and supplies, fixtures and equipment and furniture. In addition to the above listed accounts, the county will also have to value the substation land for a generation and transmission cooperative.

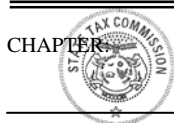
2. Market Value Estimate

This guideline will present several factors which are considered applicable in obtaining the appropriate amount of obsolescence in an REA electric cooperative. In using these factors, which compares electric co-ops to investor owned companies (IOE), we must keep the following thoughts in mind:

- A.** An IOE utility operating under good conditions in the State of Missouri will be worth at least net book,
- B.** Net book is the company's earnings base and, therefore, several measures of operating efficiency will provide "standards" against which all companies can be compared, and
- C.** "Standards" will be those operating factors which are representative of IOE utilities operating efficiently and under good conditions.

Revenue statistics comparison of an REC to an IOE company is hard to achieve because of: the nonprofit nature of cooperatives, the exemption from federal income taxes, the receipt of low interest loans, and other revenue and expense differences. While there would be many factors which could be considered when comparing one IOE to another, six factors were chosen for the purpose of comparing IOE's to cooperatives. These factors are used to determine obsolescence. The factors of comparison are as follows:

- (1) (MWH/Customer) mega-watt hours sold to ultimate customers per ultimate customer.
- (2) (MWH/Dist. Plant) mega-watt hours sold to ultimate customers per net dollar invested in



distribution plant.

- (3) (MWH/Oper. & Mtn. Expenses) mega-watt hours sold to ultimate customers per dollar of operating and maintenance expenses.
- (4) (MWH/Dist. Oper. & Mtn. Expenses) mega-watt hours sold to ultimate customers per dollar of distribution operating and maintenance expenses.
- (5) (Customer/Dist. Plant) number of ultimate customers per net dollar invested in distribution plant.
- (6) (Customer/Dist. Pole Miles) number of ultimate customers per mile of distribution line.

** Note: MWH should not include any amount for resale.

These are ratios that a prospective buyer would examine. Ratios 1, 5 and 6 give some indication of the density or volume of the business. Ratios 3 and 4 give some indication of the efficiency of the operations. Ratio 2 gives an indication of the cost effectiveness and efficiency of the use of the equipment. All six factors are intended to be directly comparable to the IOE ratios.

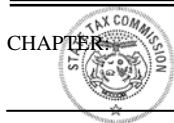
The operating ratios are calculated using the IOE companies operating in Missouri. The six ratios which are calculated do not represent any one particular electric company but rather a high quality standard by which to compare the cooperative's ratios. In January of the odd-numbered year, the Original Assessment Section of the State Tax Commission publishes the **STANDARD COMPANY FACTORS** which are developed from information on investor-owned electric companies. These factors are based upon information taken from IOE reports, containing data from the prior year, submitted by the six (6) investor-owned companies in April of the year immediately preceding the odd-numbered year. For example, the 2007 **STANDARD COMPANY FACTORS** will be calculated from information for the year ending December 31, 2005. Therefore, this information is representative of the same year in which the REC's information was used to calculate the Average of Standard Factor for the REC. The **STANDARD COMPANY FACTORS** published by the State Tax Commission in the odd-numbered year is also used in the valuation process in the even-numbered year.

3. Special Instructions: Please note the following--

Real property is to be valued on a two-year assessment cycle. The difference in data utilization for a distribution cooperative and a generation and transmission cooperative is explained below:

A. Distribution Cooperative

In the odd-numbered year, all information will be updated. The information to be updated includes the Standard Company Factors published by the State Tax Commission, net plant information and the revenue statistics data that is used to calculate the comparison to standard



factors for the distribution cooperatives. The information used to calculate the standard factors for the REC comes from a statistical report on rural electric borrowers published by the United States Department of Agriculture and the data is for the year prior to the year of publication. The Bulletin 1-1 to be used is published the year immediately preceding the odd-numbered year. The net plant information is taken from the REA Form 7 pages 3 & 4 for the year ended December 31 prior to the lien date. For example, in 2007, the 2005 Bulletin 1-1 and the net plant information for the year ending December 31, 2006 will be used.

In the even-numbered year, the rural electric distribution co-ops need only to be updated for any added or retired plant. This updated information will come from the REC Form 7 pages 3 & 4 for the preceding year. Also, the miles of line and customers used in the “allocation to the county” should be updated. For example, in 2008, the net plant information, miles of line and number of customers for the year ending December 31, 2007 will be utilized.

B. Generation and Transmission Cooperative

In the odd-numbered year, all information is updated. The net plant value of transformers, transmission lines and production plant (when applicable) should come from REA Form 12, year ending December 31 prior to the January 1 lien date. The Aggregate Average of Standard Factor will be updated using the odd-numbered year net distribution plant and Average of Standard Factor for the distribution co-op as outlined above. For example, in 2007, the net plant information for the generation and transmission co-op for the year ending December 31, 2006 will be used. In addition, the distribution co-ops’ net plant and Average of Standard Factors calculated for 2007 will be used to calculate the Aggregate Average of Standard Factor for the generation and transmission co-op.

In the even-numbered year, the Aggregate Average of Standard Factor will be updated by changing the Net Distribution Plant values for each distribution co-op. Even though the Average of Standard Factor for each distribution co-op will not change, the Aggregate Average of Standard Factor for the generation and transmission co-op may change based on a new weighting of the distribution co-ops’ net plant figures. The transformer MVA and KV miles also need to be updated. For example, in 2008, the net plant information for the generation and transmission co-ops transmission lines, transformers and production plant for the year ending December 31, 2007 will be used. In addition, the distribution cooperatives’ net plant for 2007 will be used to update the calculation of the Aggregate Average of Standard Factor of the generation and transmission co-op for 2008.



For each tax year, construction-work-in-progress is not included in the valuation process outlined by the guidelines. It must be added separately. The State Tax Commission recommends applying the appropriate obsolescence factor to construction-work-in-progress to arrive at a market value for construction-work-in-progress. For distribution co-ops, the Average of Standard Factor is used; and for generation and transmission co-ops, the Aggregate Average of Standard Factor is used. When this property goes into service in the future, these factors will be applied, so it is logical to apply these factors in its construction phase.

See the forms posted on the State Tax Commission's website:

http://www.stc.mo.gov/forms_tech.htm

Then choose either Distribution Cooperative or Generation and Distribution form.

These forms give directions and information to complete the forms.

Note the tabs at the bottom of the form for odd/even tax year. Additionally, note that the shaded areas are to be filled in, and all remaining data is calculated and carried forward.