

GUIDELINES FOR SUBSTANTIATING ADDITIONAL OBsolescence FOR STATE-ASSESSED TELECOMMUNICATION PROPERTIES

OVERVIEW

The California Constitution requires the State Board of Equalization (Board) to annually assess property, except franchises, owned or used by regulated railways, telegraph or telephone companies, car companies operating on railways in the state, and companies transmitting or selling gas or electricity. It also requires the Board to annually assess pipelines, flumes, canals, ditches, and aqueducts lying within two or more counties. To accomplish these mandates, the State-Assessed Properties Division of the Property and Special Taxes Department endeavors to provide the elected Board Members with reasonable and timely estimates of the market values of property subject to state assessment for adoption. An integral part of the valuation process is the estimation of the obsolescence suffered by assessable property.

The Board directed staff to initiate a review of obsolescence of state-assessed telecommunication property. Of particular interest is the estimation of the additional obsolescence above which is already attributed to the property in the staff's calculation of the replacement cost less depreciation indicator of value. The purpose of this document is to provide guidance to state assessees on how to substantiate additional or extraordinary obsolescence before the Board. It is not a prescription for the automatic acceptance of claims for additional obsolescence, but it will assist Board staff in recommending to the Board what weight to assign to evidence and documentation submitted in support of additional or extraordinary obsolescence.

Obsolescence or depreciation is defined as a decrease in utility resulting in a loss in property value; the difference between estimated replacement or reproduction cost new as of a given date and market value as of the same date. There are three principal categories of depreciation, described as:

1. *Physical Deterioration.* The loss in utility and value due to some physical deterioration in the property. Physical deterioration is considered curable if the cost to cure it is equal to or less than the value added by curing it. Elements of total depreciation that are not physical deterioration must be some form of obsolescence (either functional or external).¹
2. *Functional Obsolescence.* The loss in utility and value due to deficiencies and superadequacies attributable to changes in tastes, style, or design. Functional obsolescence can be curable or incurable. It is curable if the cost to cure it is equal to or less than the value added by curing it.
3. *External (or Economic) Obsolescence.* The loss in utility and value caused by external negative influences outside the property itself. External obsolescence is typically incurable. External obsolescence can be either temporary (for example,

¹ *The Appraisal of Real Estate*, 12th Edition, p.398.

an oversupplied market) or permanent (for example, a change in regulatory requirements). Temporary obsolescence will have to be quantified not only as to the degree of the loss in value, but must also reflect the duration of the loss. Permanent obsolescence will be assumed to last for the remaining economic life of the property.

METHODS OF MEASURING OBSOLESCENCE

Obsolescence, while it generally can be segregated into the three main categories above, can potentially have many causes and methods of quantifying its impact on value. When claiming obsolescence, the parties should state the issues involved, identify the measurement methods used, and provide documentation and evidence to support claims. Studies, analyses, and/or statements of fact for claiming obsolescence should be substantiated with verifiable evidence to enable staff to make an informed judgment concerning the proper value to be ascribed to the property being assessed.

Board staff recognizes several methods to quantify obsolescence, some of which are described below.

Replacement Cost Study

Replacement cost studies must take into consideration market realities and the principle of substitution. When there is a significant delay in acquiring the substitute through purchase or construction, the cost of the delay must be taken into consideration; a significant delay, in effect, raises the cost.² Accordingly, in developing a replacement cost, the substitution with technologically superior property must be more than a theoretical exercise; the proposed replacement must be available, implementation should follow a realistic time frame, and include all associated costs. For example, the replacement of switching equipment with the next generation of switches should follow a schedule that the industry or market would generally employ. Furthermore, all direct and indirect costs necessary to place the property into use should be included.³

Specifically, a replacement cost study should:

- Account for all cost elements, both direct and indirect. Direct costs are the expenditures for labor and materials and include the general contractor's overhead and profit, as well as payments to subcontractors. Indirect costs are expenditures for items other than labor and materials. Indirect costs include administrative costs related to a project, professional fees (for example, payments for architectural, engineering, or legal services), construction financing costs, property taxes and insurance during construction, installation and testing cost.⁴

² Assessors' Handbook Section 501, *Basic Appraisal*, (January 2002) p. 57.

³ Property Tax Rule 6, *The Reproduction and Replacement Cost Approaches to Value*. All references to Rules or Property Tax Rules are to Title 18, Public Revenues, California Code of Regulations.

⁴ Assessors' Handbook Section 501, *Basic Appraisal*, (January 2002) pp. 5-6; and Assessors' Handbook Section 504, *Assessment of Personal Property and Fixtures*, (October 2002) pp. 53-54.

- Consider all property owned or used including construction work in progress (CWIP). CWIP is generally property that has suffered little or no obsolescence. If there is excess property, then the study should consider whether there is residual value and whether the property should be classified as nonunitary. Nonunitary property is property generally considered not essential to the operation of the unit (that is, nonessential property such as excess conduits, land, or building space). When this is the case, the property is still required to be valued by the Board. Where it can be determined that there is value to this excess, this value must to be recognized and assessed. Revenue and Taxation Code section 723 states in part that "(w)hen valuing nonunitary property, the Board shall consider current market value information of comparable properties...." Where there is excess property, the value of such may be less than the value ascribed to the replacement property. An example would be where the replacement is a one-conduit system, but the assessee owns a three-conduit system. In this instance, the two conduits are excess and may have some residual value if exposed to the market, but that value most likely will be materially less than the value of the one conduit.
- Use a replacement that is capable of being acquired or built. A mere theoretical replacement is not acceptable. The replacement must be able to be acquired or built, but just as important, the replacement materials and labor must be available to be acquired.
- Use a realistic time frame for purchase or construction and replacement. The time frame must be realistic given the need to design the property, to account for the size and quantity of the property that must be replaced, and to install the property and to make it ready for operation. As an example of this, there would likely be a significant difference in time needed to acquire and install one switch versus 50 switches, or 100 telephone poles versus 500,000 poles.
- Consider inutility of the property. For further discussion see the *Inutility Study* section below.
- Consider the earning ability of the property. For further discussion, see the *Income Shortfall Study* section below.
- Be reconcilable with other value indicators and other related financial or economic information. Staff has traditionally used other value indicators to test the reasonableness of the replacement cost less depreciation (ReplCLD) indicator. Where the ReplCLD is substantially lower than the sales, capitalized earning ability (CEA), or historical cost less depreciation (HCLD) indicators, the reason for the difference should be supportable. It must be explained, as in the case of the sales indicator, why a purchaser would pay more or less than the ReplCLD for the property. For the income indicator, why the property is worth more or less than the capitalized income. For the HCLD, why the ReplCLD indicator is more reliable than what is reported in the financial statements relied upon by the stakeholders. If there is negative appraisal income, or if the CEA indicator is lower than the ReplCLD, sales, or HCLD indicators, this may be an indication that a further adjustment for obsolescence may be warranted.

Income Shortfall Study

An income shortfall study is based on the premise that the property's obsolescence may be measured by comparing its potential or once-expected income stream with its actual or newly projected income stream.

When estimating the income stream, the methodology should be consistent with Property Tax Rule 8, The Income Approach to Value. A specific example is that the income stream to capitalize should be developed on a pre-tax basis. If a methodology is inconsistent with Rule 8, the methodology may not be considered as reliable as if it were consistent with Rule 8. Additionally, the income stream should not be based solely on one year's income, but it should also reflect the reasonably anticipated future cash flows. Cash flow projections should not be an unsupported estimate, but should be backed up by verifiable data. Such data may include, but are not limited to, internal cash flow projections used for planning and operational aspects, and projected budgets used for determining internal financing and operational support. When using a capitalization rate or discount factor different from that derived and published by the Board, that rate should be well supported with verifiable data. Where a study shows capital expenditures will earn less than their cost of capital, verifiable data (such as past history or published company information) must be presented to show that the property has or will have decreased earnings.

Obsolescence may be estimated by discounting to present value excess costs associated with operating the subject property versus a more efficient substitute. Excess operating costs should be identified and documented. This requires an estimation of what a normal level of expenditure would be. Normal operating expenses may be derived from industry norms, expense data from competitors, or historical expense data. In estimating excess operating cost, the model should include a realistic projection as to when a substitute may be available and account for that lag time in the calculation.

Inutility Study

Utility is defined as the capacity of goods to evoke a desire for possession; wantedness; want-satisfying power.⁵ An inutility study seeks to measure a property's loss of utility and its attendant obsolescence.

Inutility is typically estimated by comparing the property's capacity to its use level and adjusting the result for economies of scale (scale factor). Accordingly, care must be exercised in selecting and supporting the appropriate capacity, usage, and scaling factor.

The basic formula for inutility is:

Inutility Percentage = $[1 - (\text{Usage}/\text{Capacity})^n] \times 100$, where "n" represents a scaling factor

⁵ Assessor's Handbook Section 502, *Advanced Appraisal*, (December 1998) p. 210.

In estimating inutility, the study must determine the actual or predicted use (the numerator of the fraction) and the rated or expected capacity (the denominator of the fraction) of the property. For example, a switch may have an absolute capacity to handle 100 functions per 6 second, but may only be rated or expected to process 70 functions per second.⁶ Conversely, the current level of usage may be 40 functions per second, but the anticipated or stabilized usage is expected to be 50 functions per second. If the study develops an inutility estimate with the absolute capacity and the current usage rate, the obsolescence due to inutility would be overstated at 47.34% = $[1-(40/100)^7] \times 100$. Instead, inutility should be calculated with the rated or expected capacity and stabilized usage rate given the market conditions on the lien date. In this example, the calculation should be:

$$[1-(50/70)^7] \times 100 = 20.98\%$$

The scaling factor is based on the concept that the cost of property of different capacities may vary in a nonlinear fashion because of economies of scale. Therefore, as capacity increases so does cost, but at a different rate and vice versa. Simply put, property with twice the capacity of the current property may not cost twice as much to build, or property with half the capacity may not cost half as much to build. Scaling factors will vary depending upon the type of equipment and the labor/material ratios. In appraisal texts and literature, the general discussion regarding scaling factors references a single purpose plant or piece of equipment. Scaling factors used in inutility submitted to the Board should be applicable to the property in question. When addressing telecommunication equipment, the scaling factors should be developed specifically based on data that can be related to telecommunication equipment.

Additionally, inutility must be evaluated in the context of whether the obsolescence has already been recognized through an impairment adjustment or through market forces typically in play for a recent sale. For example, a company which has recently written down its equipment through an asset impairment will have to demonstrate that additional or extraordinary obsolescence has not already been accounted for in the write-down. Likewise, recently purchased equipment is presumed to be acquired at market value, reflecting the expected capacity and usage at the time of acquisition; any additional inutility adjustment should be viewed in this context. For example, the above-mentioned switch was recently acquired with the expectation that while it may be rated at 70 functions per second, its expected capacity is 50 functions per second, and the buyer and seller negotiate the price accordingly. As such, the switch's expected capacity matches its expected usage and, therefore, would not warrant an additional inutility adjustment.

Property suffers from superadequacy when it exceeds market standards. In order to substantiate superadequacy, the study must demonstrate that the purported excess capacity is in excess of market standards and not spare capacity the market typically builds into the property to handle peak demands, growth, planned redundancy, or that

⁶ The capacities used for this example are for illustrative purposes only. They are not intended to represent the true capacities or metrics of the equipment and that the true capacities are difficult to quantify.

required by law. For example, local exchanges typically design and build their systems to handle the high volume of calls on holidays or emergencies, and wireless providers build their networks to limit the number of dropped calls. To substantiate superadequacy, the study should demonstrate that the property in question exceeds the market standard as evidenced by other participants' actions. Additionally, in order to claim superadequacy, the property must be scalable in the sense that the property should be attainable in the market at that increment. For example, some fiber optic cable is typically available only in multiples of twelve. Assertion of superadequacy from using only a portion of a twelve fiber bundle will be difficult to substantiate. Furthermore, the superadequate property may not always be valueless. Property deemed superadequate may still have value as excess equipment, salvage value, or some other residual value that must be included in the appraisal.

Economic Life Study

An economic life study attempts to measure obsolescence by comparing the property's remaining economic life with its remaining physical life.

Estimations of its remaining economic life must be supported with verifiable data. Assertion of technological- and competition-based obsolescence should be supported by the company's investment, utilization, or replacement patterns.

The Board receives economic life studies that claim that technological advances or competitive market forces have shortened the remaining functional life of certain property, thus arguing for the use of more aggressive depreciation factors. However, often the underlying property is not retired or comparable property continues to be added. These actions do not invalidate the claim for additional obsolescence, but retiring the underlying property or ceasing to add comparable property does add credence that the property has suffered additional obsolescence. A well-substantiated economic life study should show that the market has recognized the property's shortened remaining life with a demonstrated pattern of retirement or planned patterns of retirement.

SUPPORTING DOCUMENTATION

An obsolescence study must be evaluated based on its merits. It must be consistent with basic economic theory, sound appraisal methods, and applicable property tax statutes and regulations. That being said, there are certain documents that tend to lend support to obsolescence studies. Any differences between the degree of obsolescence requested by an assessee in either a study or supporting documents submitted prior to the value setting or in a petition for reassessment and publicly available financial information that Board staff relied upon should be explained and reconciled. Conversely, any additional obsolescence adjustment allowed by staff will be set forth in staff's appraisal work papers. Examples of documents generally considered relevant to evaluating claims of additional obsolescence include, but are not limited to, the following:

- Audited financial statements – income statements, balance sheets (including fixed asset accounts), statements of changes in financial position, and statements of changes in owner's equity.

Audited financial statements can generally be relied upon to reflect the fair market value of the property when the property is fairly new, recently purchased, or the property is the subject of a recent impairment write-down. This is due to the presumption that the acquisition price represents the property's fair market value and any difference between the depreciation for financial and valuation purposes are not compounded over time. This is not to say that financial statements cannot be relied upon when the property has aged significantly. If a property has suffered substantial increase in the price to replace the property, then the value represented on the financial statements may be lower than fair market value and vice versa. For example, this may occur when the construction cost (material and labor) to replace a building has substantially increased over time where the financial statement value will be lower than its fair market value. Conversely, when the cost to replace a computer with one of the same utility has decreased over time, the financial statement value will be higher.

- Asset allocations or write-downs as prescribed by Financial Accounting Standards Board Statement No. 141 (FASB 141) – Business Combinations.

FASB 141 requires the allocation of the purchase price paid to the assets acquired and liabilities assumed by major balance sheet caption. When the amounts of goodwill and intangible assets acquired are significant in relation to the purchase price paid, disclosure of other information about those assets is required, such as the amount of goodwill by reportable segment and the amount of the purchase price assigned to each major intangible asset class.

- Asset allocations or write-downs as prescribed by Financial Accounting Standards Board Statement No. 144 (FASB 144) – Impairment of Assets.

FASB 144 addresses financial accounting and reporting for the impairment or disposal of long-lived assets. An impairment write-down is not a prerequisite to recognizing additional obsolescence. However, where there are claims of substantial obsolescence, an impairment write-down would be supportive of such claims.

- Statement of Position (SOP) 90-7 – Financial Reporting by Entities in Reorganization Under the Bankruptcy Code.

SOP 90-7 provides guidance on financial reporting for entities that file petitions with the Bankruptcy Court and expect to reorganize as a going concern. Entities that emerge from bankruptcy may have to determine a reorganization value for their assets, including taxable tangible property. The asset amounts booked upon reorganization should be evaluated to determine if the amounts reflect fair market value at lien date.

- Bankruptcy Sales

The basic premise of a bankruptcy transaction is that it is a distress sale. The sale price would generally be considered to be less than fair market value. Unless the transaction price, or that portion allocated to tangible property, can be proven to meet the definition of fair market value, the sales price should not be considered reliable.

The definition of *fair market value* is the amount of cash or its equivalent that property would bring if exposed for sale in the open market under conditions in which neither buyer nor seller could take advantage of the exigencies of the other, and both the buyer and the seller have knowledge of all the uses and purposes to which the property is adapted and for which it is capable of being used, and of the enforceable restrictions upon those uses and purposes.⁷ While a bankruptcy transaction may meet the knowledgeable buyer and seller requirement, the requirement that neither participant takes advantage of the exigencies of the other is often hard to satisfy. By the nature of bankruptcy sales, the sellers have exigencies that are compelling their actions. Typically, the seller is compelled to sell the property at a substantially lower price due to the seller's poor financial situation, and the buyer has taken advantage of the seller's misfortune by purchasing the property at a price lower than market.

- Securities and Exchange Commission (SEC) 10K and 10Q – Annual and Quarterly Reports.
- Published articles and press releases.
- Engineering reports and studies.

Board staff will thoroughly examine all documents submitted or obtained. Board staff will recommend to the Board the reliance that should be given to documentation submitted or obtained, including whether and how the documentation supports or does not support an adjustment.

⁷ Revenue and Taxation Code section 110(a).