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TO STATE-ASSESSED TELECOMMUNICATION COMPANIES,
COUNTY ASSESSORS, AND
OTHER INTERESTED PARTIES:

OBSOLESCENCE FOR EQUIPMENT OF
STATE-ASSESSED TELECOMMUNICATION COMPANIES

In Letter To Assessors 2008/014, the Board announced a project to conduct an in-depth review of obsolescence for equipment and state-assessed telecommunication companies. Interested parties were invited to provide comments. After receipt of a limited number of comments, an interested parties meeting was held on July 22, 2008, to discuss the issue.

At the Board's Property Tax Committee meeting on November 12, 2008, the Committee heard discussions regarding the draft *Guidelines for Substantiating Additional Obsolescence for State-Assessed Telecommunication Properties (Guidelines)*. The Committee directed staff to disseminate the draft *Guidelines* to interested parties to solicit additional comments.

Enclosed is a copy of the draft *Guidelines*. Interested parties may submit suggested changes to the *Guidelines*, *in the form of alternative text*, by January 9, 2009, to Ms. Sherrie Kinkle at sherrie.kinkle@boe.ca.gov or mailed to the above address. It is anticipated that a second interested parties meeting will be held on February 5, 2009.

Documents regarding this project are posted on the Board's website at www.boe.ca.gov/proptaxes/obsolequip.htm. Technical questions regarding this project should be directed to Mr. David Yeung at david.yeung@boe.ca.gov or at 916-324-0032.

Sincerely,

/s/ David J. Gau

David J. Gau
Deputy Director
Property and Special Taxes Department

DJG:sk
Enclosures

1 **GUIDELINES FOR SUBSTANTIATING ADDITIONAL OBSOLESCENCE**
2 **FOR**
3 **STATE-ASSESSED TELECOMMUNICATION PROPERTIES**

4 **OVERVIEW**

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

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

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

- 26 1. *Physical Deterioration*. The loss in utility and value due to some physical deterioration in
27 the property. Physical deterioration is considered curable if the cost to cure it is equal to
28 or less than the value added by curing it.
- 29 2. *Functional Obsolescence*. The loss in utility and value due to deficiencies and
30 superadequacies attributable to changes in tastes, style, or design. Functional
31 obsolescence is curable if the cost to cure it is equal to or less than the value added by
32 curing it.
- 33 3. *External (or Economic) Obsolescence*. The loss in utility and value caused by external
34 negative influences outside the property itself; results from the immobility of real
35 property. External obsolescence is typically incurable.

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.¹ 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, not necessarily a complete substitution on the lien date. Furthermore, all direct and indirect costs necessary to place the property into use should be included.²

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.³
- 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 are excess properties, 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

¹ Assessors' Handbook Section 501, *Basic Appraisal*, (January 2002) page 57.

² 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.

³ Assessors' Handbook Section 501, *Basic Appraisal*, (January 2002) pages 5-6; and Assessors' Handbook Section 504, *Assessment of Personal Property and Fixtures*, (October 2002) pages 53-54.

1 assessed. Revenue and Taxation Code section 723 states in part that "(w)hen valuing
2 nonunitary property, the Board shall consider current market value information of
3 comparable properties...." Where there is excess property, the value of such may be
4 less than the value ascribed to the replacement property. An example would be where
5 the replacement is a one-conduit system, but the assessee owns a three-conduit system.
6 In this instance, the two conduits are excess and may have some residual value if
7 exposed to the market, but that value most likely will be materially less than the value
8 of the one conduit.
9

- 10 • Use a replacement that is capable of being acquired or built. A mere theoretical
11 replacement is not acceptable. The replacement must be able to be acquired or built,
12 but just as important, the replacement materials and labor must be available to be
13 acquired.
14
- 15 • Use a realistic time frame for purchase or construction and replacement. The time
16 frame must be realistic given the need to design the property, to account for the size
17 and quantity of the property that must be replaced, and to install the property and to
18 make it ready for operation. As an example of this, there would likely be a significant
19 difference in time needed to acquire and install one switch versus 50 switches, or 100
20 telephone poles versus 500,000 poles.
21
- 22 • Consider inutility of the property. For further discussion see the *Inutility Study* section
23 below.
24
- 25 • Consider the earning ability of the property. For further discussion, see the *Income*
26 *Shortfall Study* section below.
27
- 28 • Be reconcilable with other value indicators and other related financial or economic
29 information. Staff has traditionally used other value indicators to test the
30 reasonableness of the replacement cost less depreciation (ReplCLD) indicator. Where
31 the ReplCLD is substantially lower than the sales, capitalized earning ability (CEA),
32 or historical cost less depreciation (HCLD) indicators, the reason for the difference
33 should be supportable. It must be explained, as in the case of the sales indicator, why a
34 purchaser would pay more or less than the ReplCLD for the property. For the income
35 indicator, why the property is worth more or less than the capitalized income. For the
36 HCLD, why the ReplCLD indicator is more reliable than what is reported in the
37 financial statements relied upon by the stakeholders. If there is negative appraisal
38 income, or if the CEA indicator is lower than the ReplCLD, sales, or HCLD
39 indicators, this may be an indication that a further adjustment for obsolescence may be
40 warranted.

41 ***Income Shortfall Study***

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

1 When estimating the income stream, the methodology should be consistent with Property
2 Tax Rule 8, *The Income Approach to Value*. A specific example is that the income stream to
3 capitalize should be developed on a pre-tax basis. If a methodology is not consistent with
4 Rule 8, the methodology may not be considered as reliable as if it were consistent with Rule
5 8. Additionally, the income stream should not be based solely on one year's income, but it
6 should also reflect the reasonably anticipated future cash flows. Cash flow projections should
7 not be an unsupported estimate, but should be backed up by verifiable data. When using a
8 capitalization rate or discount factor different from that derived and published by the Board,
9 that rate should be well supported with verifiable data. Where a study shows capital
10 expenditures will earn less than their cost of capital, verifiable data (such as past history or
11 published company information) must be presented to show that the property has or will have
12 decreased earnings.

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

20 ***Inutility Study***

21 Utility is defined as the capacity of goods to evoke a desire for possession; wantedness;
22 want-satisfying power.⁴ An inutility study seeks to measure a property's loss of utility and its
23 attendant obsolescence.

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

27 The basic formula for inutility is:

$$28 \quad \text{Inutility Percentage} = [1 - (\text{Usage}/\text{Capacity})^n] \times 100, \text{ where "n" represents a scaling factor}$$

29 In estimating inutility, the study must determine the actual or predicted use (the numerator of
30 the fraction) and the rated or expected capacity (the denominator of the fraction) of the
31 property. For example, a switch may have an absolute capacity to handle 100 functions per
32 second, but may only be rated or expected to process 70 functions per second.⁵ Conversely,
33 the current level of usage may be 40 functions per second, but the anticipated or stabilized
34 usage is expected to be 50 functions per second. If the study develops an inutility estimate
35 with the absolute capacity and the current usage rate, the obsolescence due to inutility would
36 be overstated at $47.34\% = [1 - (40/100)^7] \times 100$. Instead, inutility should be calculated with the
37 rated or expected capacity and stabilized usage rate given the market conditions on the lien
38 date. In this example, the calculation should be:

⁴ Assessors' Handbook Section 502, *Advanced Appraisal*, (December 1998) page 210.

⁵ 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; the true capacities are difficult to quantify.

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

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

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

25 Property suffers from superadequacy when it exceeds market standards. In order to
26 substantiate superadequacy, the study must demonstrate that the purported excess capacity is
27 in excess of market standards and not spare capacity the market typically builds into the
28 property to handle peak demands, growth, planned redundancy, or that required by law. For
29 example, local exchanges typically design and build their systems to handle the high volume
30 of calls on holidays or emergencies, and wireless providers build their networks to limit the
31 number of dropped calls. To substantiate superadequacy, the study should demonstrate that
32 the property in question exceeds the market standard as evidenced by other participants'
33 actions. Additionally, in order to claim superadequacy, the property must be scalable in the
34 sense that the property should be attainable in the market at that increment. For example,
35 some fiber optic cable is typically available only in multiples of twelve. Assertion of
36 superadequacy from using only a portion of a twelve fiber bundle will be difficult to
37 substantiate. Furthermore, the superadequate property may not always be valueless. Property
38 deemed superadequate may still have value as excess equipment, salvage value, or some
39 other residual value that must be included in the appraisal.

1 ***Economic Life Study***

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

4 Estimations of its functional life must be supported with verifiable data. Assertion of
5 technological- and competition-based obsolescence should be supported by the company's
6 investment and replacement patterns.

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

16 **SUPPORTING DOCUMENTATION**

17 An obsolescence study must be evaluated based on its merits. It must be consistent with basic
18 economic theory, sound appraisal methods, and applicable property tax statutes and
19 regulations. That being said, there are certain documents that tend to lend support to
20 obsolescence studies. Any differences between the degree of obsolescence requested by an
21 assessee in either a study or supporting documents submitted prior to the value setting or in a
22 petition for reassessment and publicly available financial information that Board staff relied
23 upon should be explained and reconciled. Example of documents generally considered
24 relevant to evaluating claims of additional obsolescence include, but are not limited to, the
25 following:

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

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

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

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

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

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

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

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

21
22 The definition of *fair market value* is the amount of cash or its equivalent that property
23 would bring if exposed for sale in the open market under conditions in which neither
24 buyer nor seller could take advantage of the exigencies of the other, and both the buyer
25 and the seller have knowledge of all the uses and purposes to which the property is
26 adapted and for which it is capable of being used, and of the enforceable restrictions upon
27 those uses and purposes.⁶ While a bankruptcy transaction may meet the knowledgeable
28 buyer and seller requirement, the requirement that neither participant takes advantage of
29 the exigencies of the other is often hard to satisfy. By the nature of bankruptcy sales, the
30 sellers have exigencies that are compelling their actions. Typically, the seller is
31 compelled to sell the property at a substantially lower price due to the seller's poor
32 financial situation, and the buyer has taken advantage of the seller's misfortune by
33 purchasing the property at a lower price than market.

- 34 • Securities and Exchange Commission (SEC) 10K and 10Q – Annual and Quarterly
35 Reports.

- 36 • Published articles and press releases.

- 37 • Engineering reports and studies.

⁶ Revenue and Taxation Code section 110(a).

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