STATE OF CALIFORNIA

STATE BOARD OF EQUALIZATION
PROPERTY AND SPECIAL TAXES DEPARTMENT
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TO STATE-ASSESSED TELECOMMUNICATION COMPANIES,
COUNTY ASSESSORS, AND
OTHER INTERESTED PARTIES:

OBSOLESCENCE FOR EQUIPMENT OF
STATE-ASSESSED TELECOMMUNICATION COMPANIES

On March 7, 2007, Board staff announced (Letter To Assessors 2007/014) the initiation of a project to conduct an in-depth review of obsolescence for equipment of state-assessed telecommunication companies. Interested parties were invited to provide pertinent data, studies, and comments relative to the issue.

After analysis of the materials provided by interested parties, the enclosed Discussion Paper was developed. It is intended to provide an outline for discussion to address the obsolescence issues for the interested parties meeting. Interested parties may submit comments or suggestions to issues presented in the enclosed paper. Comments/suggestions should be submitted to Ms. Sherrie Kinkle at sherrie.kinkle@boe.ca.gov or at the above address by April 30, 2008.

It is anticipated that this project will proceed as following:

- June 2008 – Staff will disseminate an agenda matrix summarizing comments to the enclosed paper.
- July 22, 2008 – Staff will hold an interested parties meeting to discuss the obsolescence issues.
- October 1, 2008 – The Board's Property Tax Committee will hear discussions regarding any outstanding issues.

Documents regarding this project will be posted on the Board's website at www.boe.ca.gov/proptaxes/obsolequip.htm. Please be aware that a copy of the material you submit may be provided to other interested parties. Therefore, it is important that your comments do not contain confidential information.

Technical questions regarding this project should be directed to Mr. Don Jackson, State-Assessed Properties Division, at don.jackson@boe.ca.gov or at 916-323-6940.

Sincerely,

/s/ David J. Gau

David J. Gau
Deputy Director
Property and Special Taxes Department

DJG:sk
Enclosure

DISCUSSION PAPER

Obsolescence for Equipment of State-Assessed Telecommunication Companies

Issue:

How should the Board address the issue of obsolescence for equipment of state-assessed telecommunication companies?

Background

On February 1, 2007, the Board of Equalization (Board) directed staff to initiate an in-depth review of obsolescence for equipment of state-assessed telecommunication companies. On March 7, 2007, staff mailed a letter to state-assessed telecommunication companies, county assessors, and other interested parties (collectively "interested parties"), inviting them to participate in this review. We asked these parties to provide pertinent data, studies, and/or comments by May 30, 2007.

The Board is authorized to assess property owned or used by regulated telephone companies under article 13, section 19 of the California Constitution. The Board has interpreted section 19 as requiring Board jurisdiction of only telephone companies regulated as public utilities by the California Public Utilities Commission (CPUC) or common carriers as defined by the Federal Communication Commission.

In the valuation of telecommunication properties, staff is guided by Property Tax Rule 3, *Value Approaches*. Rule 3 lists four relevant value approaches that an appraiser may use when valuing state-assessed telecommunication property: (1) the comparative sales approach, (2) the reproduction or replacement cost approach, (3) the historical cost approach, and (4) the income approach.

For telecommunication companies regulated under cost of service/rate base regulation, staff has considered the historical cost less depreciation approach (as computed by the method employed by the regulatory agency[1]) to be the most reliable approach for assessment purposes. For telecommunication companies that are not rate base regulated, staff considers the replacement or reproduction cost approaches to be the most reliable approaches for assessment purposes. Finally, the income approach value indicator may be reliable for either types of telecommunication companies depending on the circumstances.

Over the past four years, Board-adopted values for telecommunication companies have been based solely on the cost approaches. For large local exchange, interexchange and wireless companies, values have been based on the replacement cost less depreciation approach. For smaller local exchange companies, values have been based on the historical cost less deprecation approach.

[1] See Property Tax Rule 3, subdivision (d).

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When values are based on the historical cost approach, there have been only a few issues raised by companies as to the amount of obsolescence recognized in the historical cost approach due to the fact that these companies are regulated under cost of service rate base regulation. This is because the tariff rates charged to customers are established to provide for adequate return on plant investment.

When values are based on the replacement cost approach, there have been a significant number of companies that raise issues regarding the proper amount of recognized obsolescence.

In developing a value based upon the replacement cost approach, generally, an appraiser must first determine the replacement cost new of the property. The replacement cost new takes into consideration the cost to replace an existing property with the most economically feasible property consisting of the same or similar utility. After determining the replacement cost new, the appraiser then adjusts the replacement cost new to match the economic remaining life of the existing property. The result is a Replacement Cost New Less Depreciation (ReplCLD) value indicator.

Scope

Most of the controversy centers on whether or not the resulting ReplCLD value indicator recognizes a sufficient amount of functional and/or external (economic) obsolescence with respect to telecommunication equipment. This paper addresses the issues concerning both functional and economic obsolescence. Where necessary, a distinction will be made between the two types of obsolescence (i.e., functional versus economic).

An interested parties meeting will be scheduled after receiving input and comments from any interested parties on this discussion paper. It is anticipated that this project will result in a procedural paper to be presented to the Board for consideration. The procedural paper, if adopted by the Board, will provide guidelines (criteria, requirements, etc.) for state assessees to measure and substantiate their claims for obsolescence and for staff to recognize obsolescence beyond the level already reflected in staff's value indicators.

Discussion of Issues

Definition of Terms

Depreciation is defined in Assessors' Handbook Section 501, *Basic Appraisal* (AH 501), as a decrease in utility resulting in a loss in property value; it is the difference between estimated replacement or reproduction cost new as of a given date and market value as of the same date. The three principal categories of depreciation are described as follows:

1. Physical Deterioration.

The loss in utility and value due to some physical deterioration in the property; considered curable if the cost to cure is equal to or less than the value added by curing it.

2. Functional Obsolescence.

The loss in utility and value due to changes in the desirability of the property; attributable to changes in tastes and style or the result of a poor original design. Functional obsolescence is curable if the cost to cure is equal to or less than the value added by curing it.

3. External (or Economic) Obsolescence.

The loss in utility and value due to an incurable defect caused by external negative influences outside the property itself.

AH 501 lists several methods that an appraiser may use when estimating depreciation: (1) the straight-line or age-life method; (2) the sales data or market method; and (3) the breakdown method. The breakdown method also includes two techniques: the cost to cure technique and the capitalization of rental loss technique. An appraiser will often use more than one method when determining the total depreciation from all causes. Which method or methods or which technique is more appropriate for an appraiser to use depends upon the particular property that is being appraised.

The list of methods to measure depreciation contained in AH 501 is not an all-inclusive list. There are many other methods and techniques not listed in AH 501 that are available to an appraiser when determining the amount of depreciation that a property has suffered. There also are many appraisal texts and papers that discuss various ways in which depreciation can be measured. Many of these texts and papers, however, concentrate on functional and economic obsolescence since this is an area of controversy.

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Obsolescence for Equipment
of State-Assessed Telecommunication Companies

1 Interested Parties' Input

Item No.	From / Representing	Information Submitted	Discussion
1	Jerry Weinert, AUS Consultants, on behalf of: Verizon Corporation, AT&T Communications, Level 3 Communications, Sprint Nextel Communications, Qwest Communication, & Global Crossing	Obsolescence in the Communications Industry	Comments on the obsolescence impacting local, long distance and wireless industries. Discussion on industries' performance measures and property lives.
2A	AT&T, Inc. submitted documents produced by Technology Futures, Inc.	Review of Substitution/Adoption Forecasting	Discussion and graphs, showing how forecasting is used in the substitution/adoption analysis. This analysis is the basis for how other data is considered when developing communication technology change.
2B	AT&T, Inc. submitted documents produced by Technology Futures, Inc.	Transforming the Local Exchange Network: Technology Substitutions in Cable, Circuit Equipment, and Switching	Graphs used to predict the timeframe for technology change for cable, circuit equipment and switching properties.
2C	AT&T, Inc. submitted documents produced by Technology Futures, Inc.	Comparison of Fiber-Based Access Alternatives	Graphs used to predict the timeframe for fiber cable to be deployed in the communication networks.
2D	AT&T, Inc. submitted documents produced by Technology Futures, Inc.	Wireless Broadband: Competitor or Complement	Discussion and graphs on past and future wireless broadband Communications' development

Obsolescence for Equipment of State-Assessed Telecommunication Companies

Item No.	From / Representing	Information Submitted	Discussion
2E	AT&T, Inc. submitted documents produced by Technology Futures, Inc.	Percent Good Factors Reflecting Technology Changes and Access Line Loss For AT&T	A report that lists and describes the development of percent good factors for major categories of telecommunications' plant for AT&T, including switching equipment, circuit equipment, metallic cables, and non-metallic cables.
2F	AT&T, Inc. submitted documents produced by Technology Futures, Inc.	A New Telecommunications World	A discussion paper on the evolving world of communications from narrowband (the traditional phone line) to broadband - wireless, wireline, video, data, voice and consumer products.
3	Deloitte Tax, LLP	CA Input Being Sought on the Valuation of State-Assessed Telecommunications Companies	A discussion of what should be accomplished with this project, research material and proposed solutions.
4	O1 Communications, Inc.	State Board Of Equalization – Obsolescence for Equipment of State-Assessed Telecommunications Companies	Provides documentation in the form of downward equipment pricing to show obsolescence for telecommunications' equipment.
5	Verizon Communications	Obsolescence of Equipment of State-Assessed Telecommunications Companies VZ CA-Analysis – 2007	Provides comprehensive and graphic analysis of the investment, revenues, earnings, access line changes and call volume and usage changes. This information shows the changes that the company is experiencing.

Item No.	From / Representing	Information Submitted	Discussion
6	Global Crossing North America, Inc.	Obsolescence for Equipment of State-Assessed Telecommunications Companies	Provides information on communication convergences: the movement to provide all networking applications, including voice, video, data, and media managed and delivered on a single Internet Protocol-based infrastructure. Lower cost/expense to provide the service and lower price to customer. Also describes the ability and need for the newest fiber optic cable to transport larger amounts of information faster.
7	SureWest Communications	Request to be listed as an interested party	N/A
8	TruePartners Consulting, LLC	Request to be listed as an interested party	N/A

Staff Analysis

There is no consistent standard for measuring obsolescence. Furthermore, the model or approach used to measure obsolescence can be different for each telecommunication industry – local, interexchange, and wireless. Within each telecommunication industry, there are various subgroups, such as incumbent local exchange companies (ILECs), competitive local exchange companies (CLECs), interexchange companies (IXCs), internet service providers (ISPs), voice over internet protocols (VOIPs), wireless, paging, mobile radio telephone companies (MRTCs), etc. In addition, the data for analysis can vary greatly from company to company. Moreover, telecommunication equipment classifications may not be specific enough to be relied upon to yield meaningful results.

It is generally accepted that the methods staff uses recognize obsolescence. The issue is whether staff's methods recognize the level of obsolescence that the assessee claims to exist. Thus, for the purpose of this discussion, staff will concentrate on the pros and cons of some of the methods presented by the interested parties that purport to adequately measure obsolescence.

Obsolescence for Equipment of State-Assessed Telecommunication Companies

The two main concerns with any information presented are:

1. Whether the information is consistent with other available information. For example, the information that state assessees present to the Board to measure the obsolescence associated with their properties should be consistent with the information that state assessees present to their companies' stakeholders.

2. Whether the information presented to the Board to measure obsolescence is supported by verifiable evidence.

Some of the methods or techniques listed in AH 501 and/or provided by the interested parties in their submitted materials that may be used to measure depreciation or obsolescence are:

- Straight-Line or Age-Life
- Sales Data Method
- Breakdown Method
- Cost to Cure
- Capitalization of Loss of Income
- Utilization Analysis

Depending on the specific circumstances, some of the above methods may be more appropriate than others in measuring depreciation/obsolescence associated with state-assessed telecommunication properties. However, there can also be various inaccuracies in the results from using these methods and techniques. These inaccuracies are primarily due to the misuse of the methods or due to improper inputs. Most of the inaccuracies can be traced to the following areas:

1. Obsolescence, measured by comparing investment or shareholder returns of companies that have similar characteristics, may provide some insight into the economics of a business valuation; however, this method is not a reliable measure to determine the value of the tangible property as a separate group. There is more to a business than just tangible property. Other factors can contribute positively or negatively to the business, such as, labor, management, and intangibles, including trade names, franchises, contracts, etc.

   Similarly, a comparison of return on investment of a specific industry to a market return for all industries is not the best approach to use to measure obsolescence because each industry has its own risk element. A gas and electric company, for example, does not have the same risk element as a telephone company. Similarly, a Fortune 500 company does not have the same risk element as a regional telephone company. Rather, a more appropriate method to measure obsolescence is to compare returns on properties of similarly situated companies in the same industry.

2. Functional obsolescence is sometimes measured by comparing physical life versus functional life. If there is functional obsolescence, it will be indicated with a shorter life estimate. Thus, the difference in value when calculating a property's obsolescence using a physical-versus-functional life will result in an obsolescence adjustment. The concern with any such calculation, however, is how the lives are determined and what evidence is used to determine those lives. There must be adequate support, not just to show that the functional life is shorter than the physical life, but also to show that the functional life is based on factual evidence and not based upon perceived opinions alone.

3. Accounting standards, such as FASB[2] Statements 141 and 144, require a company to write-down its assets (when applicable) to adequately recognize or account for loss in value of those assets. Therefore, the amount of additional obsolescence to be recognized would not be as material after a company has taken a recent FASB 144 impairment as part of its financial statement reporting or after an FASB 141 purchase price allocation adjustment has been made.

4. Estimating obsolescence by considering the principle of substitution can be useful. Where there is valid support or documentation as to the proper substitute, a reliable estimate can be made of the amount of obsolescence that a property has suffered. The support or documentation should come from both the property owner and other independently verifiable sources within the telecommunications industry.

5. Trend lines have been submitted as support for obsolescence. However, trend lines tend to have a margin of error. More importantly, the trend cannot be based on perceived opinions. Therefore, any trend line analysis must be evaluated to determine whether the level of reliability and predictability is adequate.

6. Percent good factors based on average remaining life (ARL) of a particular class of property take into account how a property will be replaced by the adoption of new technology. The ARL is impacted by the severity of competition within the industry. However, the main concern with using ARL as presented by certain companies is that the ARL does not take into account a company's actual investment and the type of investment required to remain competitive. Thus, ARL should not be based only on competition and technology in the industry without consideration of actual investment history. An example of this problem is where one company installs all fiber in its network while another company installs a combination of equipment with less fiber. Both plant investment approaches are equally valid and enable the companies to stay competitive.

7. The inutility model relies on proper measurement of standard capacity. Inutility generally measures the difference between theoretical or practical capacity versus actual production. The inutility model is best known for its use in measuring differences in operating levels for production or manufacturing facilities. The use of the inutility model in measuring operating

[2] Financial Accounting Standards Board.

differences for non-production properties can be problematic. Determining accurate practical capacity and actual production levels for telecommunication properties can be difficult.

8. A per unit replacement value is another option. As in a sales comparison approach that is based on square footage for land or buildings, consideration of a per unit approach for valuing telecommunication property could be an option, if feasible. However, there are several issues that need to be addressed before an appraiser should use a unit of comparison approach. These issues are as follows:

    - Because telecommunication equipment can vary greatly and can continue to experience technological changes, it can be difficult to find a common comparable unit across all telecommunication equipment categories. Accordingly, it can take a substantial amount of time before the market recognizes a common unit for the technological replacement as a viable economical replacement.
    - In using the per unit value, an appraiser must also consider all variable and fixed costs, including necessary soft and peripheral costs.
    - The per unit cost must represent all the costs necessary to put the property into service.
    - Finally, the per unit cost must be reflective of a comparable telecommunication system, including all necessary components that are capable of delivering the telephone services provided by the subject company.

Summary

Technology, competition, and economics are the main factors for consideration when determining the amount of telecommunication equipment obsolescence. Because these factors are not static, the measurement of obsolescence remains a moving target which at times can be difficult to determine.

In determining the amount of obsolescence present in these properties, staff considers methods that are based on supportable data and information. More than one method can be considered and/or used to add validity to the results. The methods should yield consistent results. Results that are inconsistent with each other should be analyzed and reconciled carefully for any meaningful consideration.

An assessee claiming obsolescence should be required to identify the issues involved, the measurement methods that it used, and provide documentation and evidence to support its 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.

Such documentation may include, but is not limited to, the following:

1. Financial information including:

a. Audited financial statements

b. FASB 144 Impairment Studies

c. FASB 141 Purchase Price Allocation Studies

d. Statement of Position (SOP) 90-7 Analysis, Bankruptcy

2. Analyses, Studies, and Reports (accompanied by verifiable evidence):

a. Replacement cost

b. Economic life

c. Income shortfall

d. Inutility

e. Return on investment

As discussed above, it is staff's opinion that any additional obsolescence beyond the level already reflected in staff's normally calculated value indicators has to be supported by adequate documentation and verifiable evidence. Therefore, to facilitate the consideration of additional obsolescence for equipment of state-assessed telecommunication companies, the goals at the conclusion of this process would be for: (1) the Board to establish acceptable methods to measure obsolescence for equipment of state-assessed telecommunication companies; and (2) the Board to establish clear criteria regarding the level of supporting documentation under acceptable methodology.