Ex. __ (AES-T)

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

In the Matter of the Pricing Proceeding for Interconnection, Unbundled Elements, Transport and Termination, and Resale	)	DOCKET NO. UT-960369
In the Matter of the Pricing Proceeding for Interconnection, Unbundled Elements, Transport and Termination, and Resale for U S WEST COMMUNICATIONS, INC.	)	DOCKET NO. UT-960370
In the Matter of the Pricing Proceeding for Interconnection, Unbundled Elemetns, Transport and Termination, and Resale for GTE NORTHWEST INCORPORATED	)	DOCKET NO. UT-960371

DIRECT TESTIMONY

OF

ALLEN E. SOVEREIGN

March 27, 1997

WUTC DOCKET NO. UT-960369
EXHIBIT NO. (T) 79
ADMIT ☒ W/D ☐ REJECT ☐

Ex. __ (AES-T)

GTE NORTHWEST INCORPORATED

DIRECT TESTIMONY OF

ALLEN E. SOVEREIGN

WUTC UT-960369, 960370, 960371

Q. PLEASE STATE YOUR NAME, ADDRESS AND PRESENT POSITION.

A. My name is Allen E. Sovereign. My business address is 700 Hidden Ridge, Irving, Texas 75038. I am employed by GTE Telephone Operations as Manager-Capital Recovery.

Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATIONAL BACKGROUND.

A. I received a Bachelor of Science Degree in Electrical Engineering from Michigan Technological University, Houghton, Michigan, in 1971. I received a Master of Science Degree in Business Administration from Indiana University, Bloomington, Indiana, in 1980. I have attended courses in depreciation and life analysis provided by Depreciation Programs, Inc., of Kalamazoo, Michigan. I have also attended and instructed basic and advanced GTE courses in depreciation life analysis. I am a Senior Member of the Society of Depreciation Professionals.

Q. BRIEFLY DESCRIBE YOUR WORK EXPERIENCE WITH GTE.

A. I have worked with GTE Companies for 22 years, with 15 of those years in the Depreciation study area. I have held various positions in Engineering and Construction, Capital Budgeting, Marketing, and Product Development. I was named Manager of Capital Recovery in February 1994.

Q. WHAT ARE THE RESPONSIBILITIES OF YOUR CURRENT POSITION?

A. I am responsible for the preparation, filing and resolution of capital recovery studies for GTE Telephone Operations and the determination of economic lives for financial reporting.

Q. HAVE YOU PREVIOUSLY TESTIFIED WITH ANY REGULATORY BODIES?

A. Yes, I have testified before the Texas, New Mexico, California, Idaho, Pennsylvania, Michigan, Indiana, South Carolina, Virginia, Kentucky, and Hawaii State Utility Commissions.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of this testimony is to describe the methodology that this Commission should approve for determining the depreciation lives used in total service long run incremental costs ("TSLRIC") and total element long run incremental cost ("TELRIC") studies.

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. Specifically, this testimony (a) addresses the reasons "economic lives" must be used in calculating "economic depreciation rates" for use in forward-looking cost studies; and (b) shows that reliance on traditional methods of establishing prescribed lives for establishing "economic lives" are not appropriate for this study.

ECONOMIC LIVES ARE RECOMMENDED FOR USE IN FORWARD-LOOKING COST STUDIES

Q. PLEASE DEFINE THE TERMS "ECONOMIC LIFE" AND "ECONOMIC DEPRECIATION" AND HOW THEY RELATE TO GTE'S COST STUDIES.

A. "Economic life" is the period of time over which an asset is used to provide economic value to GTE.

"Economic depreciation" is the per annum rate at which the cost of an asset can be recovered during the asset's economic life. Economic depreciation can be expressed mathematically in its simplest terms as the amount of the original asset investment divided by its economic life. This quotient represents an asset's economic depreciation expense that must be recovered each year for the duration of that asset's economic life.

Q. WHAT ARE "COMMISSION PRESCRIBED DEPRECIATION LIVES"?

A. These are the lives set by regulatory commissions for regulatory accounting purposes.

Q. IS AN ASSET'S ECONOMIC LIFE EQUAL TO THE DEPRECIATION LIFE OF THAT ASSET AS PRESCRIBED BY STATE COMMISSIONS OR THE FCC?

A. No, economic lives are generally shorter than prescribed asset lives.

Q. WHY ARE ECONOMIC LIVES SHORTER THAN PRESCRIBED LIVES?

A. Historically, regulatory commissions prescribed asset lives while operating under the assumption that there would be little or no competition and that technological innovation would continue at its traditional pace. The Telecommunications Act of 1996, which is promoting a new competitive environment resulting in more rapid technological change, invalidates that basic assumption.

Recall that the economic life of an asset is the period of time over which that asset is used to provide economic value. Both increased competition and technological change shorten the period over which an asset will provide

economic value. In a world where GTE was a regulated monopoly, it was able to keep old assets on the books, even after their economic life had expired, because depreciation rates were based upon artificially long asset lives. In setting depreciation rates based on long asset lives, the depreciation rates were lower and the period of time over which the asset was depreciated was longer. As a result, these longer depreciation lives assisted the state commissions in keeping consumer prices artificially low. Today's competitive market environment – which will reduce the length of time over which GTE can recover its investment in an asset – renders the use of artificially long asset lives in calculating depreciation rates unsustainable.

Q. HOW DOES A SHIFT FROM A REGULATED MARKET TO A COMPETITIVE MARKET AFFECT THE DEPRECIATION LIVES OF GTE'S ASSETS?

A. GTE has made prudent investments to provide quality service to its customers and to fulfill its obligation as a "Carrier of Last Resort" in exchange for the right to be the sole service provider in its service territory. As a consequence, the Commission regulated and controlled the prices of the services GTE charged its customers, as well as the depreciation lives of GTE's investment assets. Under this regulatory compact, GTE has been guaranteed the opportunity for full recovery of all of its investments over the Commission authorized depreciation period of time without regard to the competitive marketplace. Again, this helped keep basic local exchange service rates artificially low.

This arrangement worked well in a single provider environment. However, this Commission's actions and the Telecommunications Act of 1996

are forcing the telecommunications industry to evolve from the single provider environment and to a competitive environment. GTE's opportunity to fully recover its prudent investments is no longer guaranteed. Competition and technological change greatly increase GTE's risk of being unable to fully depreciate its assets over the Commission mandated length of time as previously prescribed. Quite simply, the prescribed depreciation time period is now too long to allow GTE to recover its investment.

Q. WHEN ESTIMATING ECONOMIC LIVES, CAN TRADITIONAL LIFE ESTIMATION TECHNIQUES BE USED?

A. No. Traditional life estimation techniques are used to predict an asset's *physical* life, but not its *economic* life. The physical life of an asset ends upon that asset's retirement. Economic lives, however, can be affected when no retirements are evident. For example, assume GTE has a 1,200 pair cable that has been used to provide service to 1,000 customers in the pre-1996 Telecommunications Act ("Act") single-provider environment. Next, assume that in the post-1996 Act industry, only 500 pairs of the 1,200 pair cable are being used (i.e., providing service to customers and economic value to GTE) as a result of 500 customers leaving for competitors' networks. Retirement of the 500 pairs that are no longer in use is not permitted under current accounting guidelines. Retirement-based analysis (i.e., the traditional physical life estimation technique) assumes that all plant in service has economic life. However, under this scenario, only 50% of the originally utilized investment actually has economic life. The economic life of the asset is severely affected by

competition, but there are no associated retirements of the asset.

Q. WHAT FACTORS SHOULD BE CONSIDERED WHEN ESTIMATING THE ECONOMIC LIFE OF AN ASSET?

A. When estimating economic lives, GTE evaluates the criteria that is used to establish the retirement lives of assets as a guideline for estimating economic lives, reviews the substitution analysis studies conducted by Technology Futures, Inc. ("TFI"), and considers the effect the evolving competitive market will have on the economic lives of many of GTE's assets. As a result the factors GTE uses to estimate economic lives of assets should be used.

Q. WILL YOU PLEASE DESCRIBE THESE FACTORS?

A. GTE first considers the National Association of Regulatory Utility Commissioners' ("NARUC") description of factors that cause property to be retired.[1] These include:

1. Physical Factors
   a. Wear and tear
   b. Decay or deterioration
   c. Action of the elements and accidents

2. Functional Factors
   a. Inadequacy
   b. Obsolescence
   c. Changes in art and technology
   d. Changes in demand
   e. Requirements of Public Authorities
   f. Management discretion

3. Contingent factors
   a. Casualties or disasters
   b. Extraordinary obsolescence

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[1] National Association of Regulatory Utility Commissioners, Public Utility Depreciation Practices 15 (1996).

While the NARUC factors have traditionally been used to establish the retirement or physical life expectancy of assets in the telecommunications industry, GTE believes these same factors can be used to help estimate an asset's economic life expectancy.

GTE uses the NARUC factors as a guideline for choosing the economic lives of certain assets, but only after allocating proper weighting to those factors that reflect the significant roles competition and technological change play in determining an asset's economic life.[2] Specifically, the "Functional Factors" (Part 2 of the NARUC factors) are sensitive to competition and technological change and are given substantially greater weight when GTE considers the NARUC criteria in establishing the economic lives of GTE's assets. The affect that competition and technological change will have on an asset's economic life cannot be ignored.

GTE also considers the substitution analysis studies performed by TFI when GTE estimates the economic lives of its assets. Two such studies are attached as Attachment 1 and Attachment 2. TFI studies quantify the uncertainties of the future through the use of tested modeling and forecasting tools. TFI replaces judgmental adjustments with a more disciplined approach based on mathematical predictions of technological advances as well as other developments in the industry. In its studies, TFI employs proven modeling tools

[2] Simply because the NARUC factors also are used to determine an asset's book retirement ("book life"), an asset's book life is not necessarily the same as an asset's economic life. Plant investment may remain on the books without having any remaining economic life.

and has demonstrated its reliability in predicting the future substitution of technologies. This is referred to as substitution analysis.

Substitution analysis is used to project remaining lives for plant investment when technological change is driving a shortening of asset lives. To quantify this technological change, TFI uses a model to analyze remaining economic lives using patterns of technological substitution observed in the communications industry as well as other industries. The substitution analysis conducted by TFI recognizes the combined effects of competition and technological change. The studies generally project shorter lives than those currently prescribed by the Commission.

Q. DID GTE USE THIS APPROACH TO DEVELOP ECONOMIC LIVES FOR USE IN THE COST STUDY BEING SUBMITTED WITH GTE'S TESTIMONY IN THIS CASE?

A. Yes. The following list reflects the economic lives that GTE has estimated for various assets:

Account	Economic Life (Years)
Digital Switching	10.0
Circuit Equipment	8.0
Pole Lines	25.0
Aerial Cable Metallic	15.0
Aerial Cable Non-Metallic	20.0
Underground Cable Metallic	15.0
Underground Cable Non-Metallic	20.0
Buried Cable Metallic	15.0
Buried Cable Non-Metallic	20.0
Conduit Systems	40.0

This list reflects the economic lives of assets that are most subject to change in

a competitive and technologically evolving environment. Establishing the proper economic lives for these assets is critical to determining economic depreciation in a forward-looking cost study. Economic lives of other assets are used in GTE's cost studies, but the change in those assets' economic lives (e.g., motor vehicles) as compared to the prescribed lives are extremely small and have little impact on the depreciation rates for those assets.

Q. HOW DO THE ECONOMIC LIVES USED BY GTE IN ITS CURRENT COST STUDY COMPARE TO THE LIVES GTE SUBMITTED IN ITS PREVIOUS COST STUDIES?

A. The lives used in the previous studies are longer than the economic lives used in the current cost study. The chart below compares the average service lives used in the previous cost study with the 1995 Commission approved lives and GTE's economic lives.

	1994 Approved ASL	1995 Approved Lives	GTE's Economic Lives
Digital Switching	17.2	16.5	10
Circuit Equipment	12.2	12	8
Pole Lines	29	28	25
Aerial Cable Metallic	22	21	15
Aerial Cable Non-Metallic	29	30	20
Underground Cable Metallic	26	26	15
Underground Cable Non-Metallic	29	30	20
Buried Cable Metallic	23	23	15
Buried Cable Non-Metallic	30	30	20
Conduit Systems	50	50	40

The economic lives used in the prior cost studies were based upon average service lives (ASL) prescribed by the Washington Commission in the 1994

depreciation rate proceeding. The prior lives are longer because they were derived by using traditional life estimation techniques. These traditional techniques, as I have already explained, are inappropriate for use in forward-looking cost studies.

Q. WHAT DO THE TFI STUDIES RECOMMEND GTE USE AS ECONOMIC LIVES FOR ITS ASSETS?

The chart below compares TFI's recommended economic life ranges with the economic lives GTE uses in its cost study.[3]

	ECONOMIC LIFE	
	TFI	GTE
CENTRAL OFFICE EQ.		
Digital	9-11	10
Circuit	6-9	8
COPPER CABLE		
Aerial	14-16	15
Underground	14-16	15
Buried	14-16	15
FIBER CABLE		
Aerial	15-20	20
Underground	15-20	20
Buried	15-20	20

TFI specifically addresses the appropriate lives to be used for Outside Plant cable, Central Office Switching, and Circuit Equipment accounts, as these are the accounts that are most affected by changes in competition and technology.

[3] Larry K. Vanston & Ray L. Hodges, Depreciation Lives For Telecommunications Equipment: Review and Update 33 (Technology Futures, Inc. 1995)

Q. ARE THE ECONOMIC LIVES PRODUCED BY GTE'S METHODOLOGY REASONABLE?

A. Yes. Comparing the lives GTE uses in its cost studies to the lives AT&T uses is an excellent example of how reasonable GTE's economic lives are.

	AT&T's Economic[4] Life	GTE's Proposed Economic Life
Digital Switching	9.7	10.0
Digital Circuit Equipment	7.2	8.0
Copper Cable	3.4-15.0	15.0
Fiber Cable	20.0	20.0

Q. ARE THE ECONOMIC LIVES GTE USED IN ITS COST STUDIES SIMILAR TO THE ECONOMIC LIVES IDENTIFIED BY THE REGIONAL BELL OPERATING COMPANIES ("RBOCs")?

A. Yes. The RBOCs' economic lives are, like GTE's, within the ranges identified by TFI.

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. Economic depreciation measures the decline in an asset's value from all causes, including competition and technological change. When all services were monopoly services, regulators could defer capital recovery without affecting the ability of a regulated company to recover its investments. With the advent of local competition, regulators no longer have the luxury of postponing capital recovery while still guaranteeing companies like GTE the opportunity to make such a recovery. The changing telecommunications environment must be taken

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[4] This information was taken from publicly available documentation filed by AT&T in relation to FCC proceeding 95-32.

into consideration when determining the proper recovery period of an asset. The methodology described herein considers these developments.

In addition to demonstrating that the historical methodology for describing prescribed lives is inappropriate to use in developing economic lives, GTE has also shown that the economic lives used in its cost studies are based on a forward-looking approach and are therefore more accurate estimates of assets' economic lives than prescribed lives.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.