that some of the input assumptions that the HM 5.0a makes have not been achieved by any telephone company today."[62] GTE's Comments contained further examples of state commission criticism of the HAI Model inputs.[63] Thus, GTE has clearly shown not only that the HAI Model input values are unreasonable, but also that carrier-specific inputs on a state basis would provide more accurate estimates of costs.

AT&T and MCI claim that "the HAI model captures other state- and region-specific costs by accounting for different soil types and variations in expense levels reflecting differences in climate or other regional characteristics."[64] However, GTE has found that this is not the case. The HAI Model 5.0a documentation purportedly addresses the variations in terrain and hundreds of "soil texture descriptions" that are used to determine the value for the input parameters.[65] While the HAI Model allegedly captures these cost variations with the user adjustable difficult terrain parameters and difficult terrain calculations, the Model results are essentially unaffected by changes to the input parameters. As a result, the Model fails to reflect the variations in terrain.

For example, to account for changes in buried cable, "HM5.0a treats difficult buried cable placement in rock conditions using five parameters: 1) Distribution Distance Multiplier, Difficult Terrain; 2) Surface Texture Multiplier; 3) Rock Depth

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[62] South Carolina PSC Order at 61.

[63] GTE Comments at 23-24, Exhibits 3 and 4.

[64] AT&T/MCI Comments at 15.

[65] HAI Model 5.0a Inputs Portfolio, §§ 2.5.2, 2.7.1 - 2.7.4, 3.1.1, 3.6.1, 3.6.2, 6.5.

Threshold; 4) Hard Rock Placement Multiplier; and 5) Soft Rock Placement Multiplier."[66] On behalf of GTE, Network Engineering Consulting, Inc. has run the HAI Model to determine how sensitive the results are to changes in the difficult terrain inputs. The table attached as Exhibit 3[67] shows that the HAI Model 5.0a is *insensitive* to changes in the key difficult terrain inputs. The first run was made with HAI Model defaults, while the additional runs show the impact of changing the various difficult terrain inputs and the impact on the loop costs. The only non-negligible change in loop cost results (5 percent) is the result of increasing the Distribution Distance Multiplier, Difficult Terrain input from the default of 1.0 to 1.5. However, the HAI Model 5.0a modelers recommend not adjusting this input value, claiming that:

> While the typical response to difficult soil conditions is often to simply route cable around those conditions, which could be reflected in this parameter, HM 5.0a instead treats the effect of difficult soil conditions as a multiplier of placement cost – see Parameter 6.5, Surface Texture Multiplier. Therefore, the distribution distance multiplier is set to 1.0."[68]

Thus, the HAI Model 5.0a clearly does not reflect the significant cost differences based on difficult terrain inputs that ILECs encounter within their operating areas.

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[66] HAI Model 5.0a Inputs Portfolio, § 2.7.1.

[67] The results shown here are for GTE's operations in Pennsylvania. Analyses performed in other states and for other companies have shown similar impacts.

[68] HAI Model 5.0a, Inputs Portfolio, § 2.7.1.

VI. THE COMMISSION SHOULD ADOPT BENCHMARKS AND PERCENTAGES ONLY AFTER THE MODEL PLATFORM AND INPUTS HAVE BEEN DETERMINED.

As GTE explained in its Comments, the selection of any benchmarks should be done only in the context of a specific model platform and inputs. Attempting to determine appropriate benchmarks without knowing the model platform and inputs will prevent the Commission from establishing a benchmark that meets the "'sufficiency' and 'comparability' standards of section 254."[69] Further, as GTE also noted in its Comments, the Commission has already begun a separate proceeding to consider benchmark issues, and interested parties, including GTE, have filed comments in that proceeding. Therefore, GTE urges the Commission to continue to address these issues in that proceeding.[70]

The federal benchmark is not a device for determining the total amount of support (state and federal) needed in an area, but rather is the dividing line determining what support will come from the federal government and what support will come from the state. As such, the benchmark need not be based on any external criteria related to

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[69] Comments of the National Telephone Cooperative Association, CC Docket Nos. 96-45, 97-160 at 4 (filed June 1, 1998) ("NTCA Comments").

[70] Regardless of how they define the appropriate benchmark, several parties concur that the revenues associated with discretionary services (including toll and vertical services) and access services should be excluded from the calculation of any benchmark level adopted. USTA Comments at 4; NTCA Comments at 2; U S WEST Comments at 7; BellSouth Comments at 11; Sprint Comments at 4. These services provide implicit support today, and therefore including them would only perpetuate implicit subsidies found in the existing rate structures of most ILECs. USTA Comments at 4; NTCA Comments at 4; U S WEST Comments at 6; BellSouth Comments at 11; Sprint Comments at 5.

the overall need for support. The total need for support is the difference between the rates that a state commission allows a universal service carrier to charge for basic local service and the rate a carrier would have charged in a competitive market, absent regulation.[71] In this proceeding, the Commission is using the cost estimate as a proxy for that cost-based rate.[72] The proportion of the difference between the cost of service and the rate ILECs are permitted to charge customers paid by the federal plan could be determined without using a benchmark. For example, the federal plan could simply provide a percentage of the total difference. However, this would create an incentive problem, since the state would control the local rates, which in turn would be inputs into the federal support calculation. By reducing its local rate, a state could increase its federal support. The benchmark addresses this concern, by establishing a point of comparison over which the state has no control.

Because the purpose of the benchmark is to calculate the federal support only, and not the total need for support, the Commission should focus on choosing benchmarks that produce a reasonable amount of federal support. As GTE has shown in other universal service proceedings, there are several obligations the Commission

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[71] This is a simplification. More generally, the support is the amount the Commission would have to pay a carrier to make that carrier willing to take on the specified universal service responsibility. This may include factors not captured in the cost-price comparison. An auction mechanism, which GTE has proposed, would capture all of the factors the bidders found to be relevant. However, the comparison of local rates and costs is a first-order approximation of the necessary amount.

[72] However, because what is being estimated is really the market rate, it is important that the cost estimate used for universal service be consistent with the level of the ILEC's prices across all of its services.

must consider in establishing a benchmark. First, federal support should be sufficient to replace the implicit support that is provided today by interstate access. Second, the Commission should continue the explicit Federal support from the current high cost fund to non-rural ILECs. Third, federal funding should provide sufficient support to states with very high costs and/or low funding bases. The first two amounts are easily calculated. The third is a policy determination to be made by the Commission, with input from the Joint Board. None, however, is related directly to concepts such as average revenue, or average cost. Thus, collecting information on average revenue or average cost will not necessarily provide the Commission with information on how much support the federal plan should provide in any given area. To the contrary, a benchmark established at the level of either of these averages would provide the necessary amount of federal support only by accident.

A. The benchmarks should not be based on average revenue.

Today, most universal service support is implicit. It is provided by the ILECs' rates for interstate and intrastate access, toll, vertical services, and other services with rates that are set higher than cost by state regulators.[73] In some cases, the margins above direct cost are several hundred percent. If every customer purchased a fixed bundle of local, access, toll, and other services, then each time a carrier either gained or lost a local customer, it would also gain or lose an average amount of revenue. In

[73] This system of implicit support is described more fully in other GTE pleadings. *See, e.g.*, Reply Comments of GTE, CC Docket Nos. 96-45, 97-160 at 6 (filed May 29, 1998).

such a world, assuming an average amount of revenue might result in a support system that was sustainable. However, in actuality, the distribution of customer usage is quite skewed, so that a majority of customers have usage which is below average. Thus, if the amount of support is based on the assumption that the customer will generate some average amount of revenue, that assumption will be wrong for most customers and the support provided will be insufficient.

GTE has analyzed the revenues provided by customers in its study area in Texas. Even if all of the revenue each customer generates is included and the cost of service is evaluated using the interim unbundled network element rates established by the Public Utility Commission of Texas, the analysis indicates that any CLEC that tried to serve all of GTE's residential customers in Texas would lose money on 78 percent of them.[74] If the total amount of support (state and federal) for customers in Texas was calculated on a basis that assumed the average revenue for contributing services, then:

- The implicit support provided by access and other services today would be incorporated into the new system. The amount of explicit support would be insufficient to make offsetting reductions in rates for access, toll, and vertical services, so that customers would continue to pay high rates for those services. This would harm low income customers and customers in remote rural areas who have significant amounts of toll calling.[75]

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[74] Using these unbundled network element rates as the estimate of cost is very conservative. If GTE were to sell all of its output in Texas at these UNE rates, its revenue would decline by 36 percent from current levels. Thus, the CLEC in this analysis is starting off with an artificial cost advantage, yet still loses money on 78 percent of the customers. If GTE's own costs were used in the analysis, the proportion of unprofitable customers would be even higher.

[75] As Sprint has pointed out, many of the consumers universal service policy seeks to protect are harmed by having to pay high rates for access and toll. Proposal of Sprint Corporation, CC Docket Nos. 96-45, 97-160, DA 98-715 at 6 (filed Apr. 27, 1998).

(Continued...)

- Competitors would focus their efforts on the 22 percent of residential customers who are profitable to serve. This competition would erode the sources of the implicit support assumed in the calculation.
- No carrier would want to compete for the business of the 78 percent of residential customers who are unprofitable. These customers would be walled off from the benefits of competition.

Some parties claim that it is appropriate to include revenues from other services since some of the costs of these services may be included in the model estimates. This is wrong for two reasons. First, it is possible to examine the cost of basic service separately. Second, and more importantly, including both the revenues and the costs of services that generate the support is unreasonable, even if the costs of those services are accurately captured in the models. These services have high revenues today, and low costs; including both in the calculation preserves this implicit support flow and prevents the system from generating the explicit support necessary to replace the implicit flow by reducing the contributing rates. Thus, including revenue from services other than local cannot be justified by matching revenues with costs. It is precisely because current rates are out of balance – revenues are not appropriately matched with costs by service – that a new explicit mechanism is needed.

Therefore, as explained above, the Commission should not calculate its benchmarks on the basis of data on average revenues. Federal support determined in this way would be sufficient only by accident. Further, if states were to use this same

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(...Continued)
According to a recent study by Robert Crandall, households with incomes below $10,000 spend, on average, 45 percent of their monthly bill on long distance services. Robert W. Crandall, *"Universal-Service" Telephone Subsidies, Income Redistribution, and Consumer Welfare,* The Brookings Institution at 6 (July 1997).

revenue assumption in developing their own plans – and several states have already done so – then the total amount of state and federal support would be insufficient because it would assume revenues that do not exist for the vast majority of local residential customers.

B. The Commission has already deferred the determination of affordability to the states.

Some commenters recommend adoption of an "affordability" benchmark.[76] GTE agrees that the overall purpose of universal service support is to ensure that rates are affordable. This means that the total amount of support made available (both state and federal) should be sufficient to maintain the "affordable" rate at which a universal service provider is required to offer basic local service. Further, in earlier comments to the Commission, GTE has recommended that the obligation a carrier undertakes should be specifically tied to the "affordable" rate a state commission establishes.[77] However, GTE has concerns about a federal affordability benchmark.

First, the Commission has already deferred the determination of affordability to the states. Therefore, the Commission should not adopt an affordability standard that may be different from those the states may adopt Instead, the Commission should tie any universal service obligation in each state to an affordable rate set by that state. Second, there are difficulties inherent in using income data to vary support by geographic area. Geographic location is not a reliable indicator of a household's

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[76] Sprint Comments at 4-6; SBC Comments at 22-29.

[77] GTE's Comments, CC Docket No. 96-45 at 15 (filed Dec. 19, 1996).

income. Within even small areas, the income of individual households will vary widely. A person of average means who happens to live in an area where the majority of residents have higher incomes will pay much more for local service than a person of similar income who lives in another area. It is not clear that, overall, such a program would be more equitable than one which ignores income (except for Lifeline). Further, the affordability approach, like that proposed by Time Warner,[78] implicitly assumes that carriers could adjust their local rates to reflect these geographic differences in support, yet it is by no means certain that state regulators would allow ILECs to do so.

GTE continues to recommend that the Commission choose a set of federal benchmarks and percentages – a sliding scale – which ensure that the amount of federal support satisfies the three policy objectives GTE outlined above. The choice of benchmarks should be justified on the basis that those selected produce reasonable amounts of support, both in total and by state, rather than by resorting to an average calculation of revenue or cost.

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[78] Time Warner Comments Regarding Universal Service Methodology, CC Docket Nos. 96-45, 97-160, Appendix "Defining the Universal Service Affordability Requirement" (filed Apr. 27, 1998).

VII. CONCLUSION

As shown above, there is substantial consensus that the HAI Model does not appropriately account for customer location and that its input values do not accurately reflect the costs of providing universal service. Therefore, GTE urges the Commission to adopt a BCPM-based model, which uses carrier-specific inputs by state.

Respectfully submitted,

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June 12, 1998

Exhibit 1

EXHIBIT 1

Metromail Database

Comparison of Metromail Inc.'s National Consumer Database Total Address Count and the 1996 Bureau of Census Household Count.

State	1996 Census Housing Units [1]	Metromail Households Response 1 [2]	Metromail Households Response 2 [3]	Metromail Response 1 Percent of Actual [4] = [2]/[1]	Metromail Response 2 Percent of Actual [5] = [3]/[1]
AL	1,814,000	1,136,471	1,536,845	62.65%	84.72%
AK	242,000	94,984	208,709	39.25%	86.24%
AZ	1,890,000	1,113,805	1,520,887	58.93%	80.47%
AR	1,077,000	702,468	917,776	65.22%	85.22%
CA	11,827,000	6,502,423	11,353,718	54.98%	96.00%
CO	1,640,000	1,158,787	1,539,584	70.66%	93.88%
CT	1,365,000	1,055,291	1,290,982	77.31%	94.58%
DE	318,000	184,058	292,756	57.88%	92.06%
DC	268,000	207,843	224,782	77.55%	83.87%
FL	6,771,000	4,735,040	6,389,668	69.93%	94.37%
GA	3,021,000	1,855,926	2,565,567	61.43%	84.92%
HI	433,000	257,517	324,986	59.47%	75.05%
ID	481,000	335,523	458,815	69.76%	95.39%
IL	4,724,000	3,441,769	3,988,530	72.86%	84.43%
IN	2,444,000	1,713,996	2,145,449	70.13%	87.78%
IA	1,197,000	997,394	1,123,985	83.32%	93.90%
KS	1,109,000	814,087	1,009,696	73.41%	91.05%
KY	1,638,000	1,105,204	1,414,262	67.47%	86.34%
LA	1,780,000	1,198,541	1,545,176	67.33%	86.81%
ME	630,000	461,795	554,114	73.30%	87.95%
MD	2,049,000	1,547,206	1,934,419	75.51%	94.41%
MA	2,547,000	1,986,744	2,355,065	78.00%	92.46%
MI	4,067,000	2,816,709	3,584,281	69.26%	88.13%
MN	1,981,000	1,654,119	1,885,672	83.50%	95.19%
MS	1,083,000	665,505	979,539	61.45%	90.45%
MO	2,374,000	1,676,534	2,078,086	70.62%	87.54%
MT	377,000	284,994	349,145	75.60%	92.61%
NB	699,000	557,127	636,948	79.70%	91.12%
NV	691,000	320,856	645,915	46.43%	93.48%
NH	531,000	392,564	490,384	73.93%	92.35%
NJ	3,186,000	2,282,496	3,007,948	71.64%	94.41%
NM	711,000	396,066	584,447	55.71%	82.20%

State	1996 Census Housing Units [1]	Metromail Households Response 1 [2]	Metromail Households Response 2 [3]	Metromail Response 1 Percent of Actual [4] = [2]/[1]	Metromail Response 2 Percent of Actual [5] = [3]/[1]
NY	7,392,000	5,221,639	6,075,777	70.64%	82.19%
NC	3,197,000	1,980,185	2,682,472	61.94%	83.91%
ND	291,000	237,393	264,133	81.58%	90.77%
OH	4,594,000	3,437,918	4,149,042	74.83%	90.31%
OK	1,453,000	939,910	1,263,661	64.69%	86.97%
OR	1,343,000	911,509	1,388,849	67.87%	103.41%
PA	5,163,000	3,767,022	4,683,974	72.96%	90.72%
RI	427,000	319,129	372,878	74.74%	87.33%
SC	1,604,000	1,011,833	1,318,573	63.08%	82.21%
SD	316,000	240,613	282,930	76.14%	89.53%
TN	2,240,000	1,476,805	2,114,769	65.93%	94.41%
TX	7,556,000	4,837,260	6,476,573	64.02%	85.71%
UT	692,000	493,984	653,547	71.38%	94.44%
VT	289,000	189,221	271,843	65.47%	94.06%
VA	2,752,000	1,815,120	2,474,665	65.96%	89.92%
WA	2,304,000	1,476,309	2,121,740	64.08%	92.09%
WV	793,000	516,222	688,611	65.10%	86.84%
WI	2,218,000	1,764,155	1,864,727	79.54%	84.07%
WY	209,000	149,279	185,250	71.43%	88.64%

Exhibit 2

BEFORE THE
NEBRASKA PUBLIC SERVICE COMMISSION

In the Matter of the Nebraska Public Service Commission, On Its Own Motion, Seeking To Conduct An Investigation To Determine Which Cost Study Model Should Be Recommended To The FCC For Determining Federal Universal Service Support.	)))))))	Application No. C-1633

DIRECT TESTIMONY OF

ALLEN E. SOVEREIGN

ON BEHALF OF:

GTE MIDWEST INCORPORATED

SUBJECT: ECONOMIC DEPRECIATION

May 11, 1998

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DIRECT TESTIMONY OF ALLEN E. SOVEREIGN

I. INTRODUCTION

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 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 23 years, with 16 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 GTE.

Q. HAVE YOU PREVIOUSLY TESTIFIED WITH ANY REGULATORY BODIES?

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

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of this testimony is to first describe the methodology that this Commission should approve for determining the depreciation lives used in universal service cost studies. Second, this testimony will recommend a set of lives to be used as inputs in those cost studies for GTE Midwest Incorporated, in Nebraska ("GTE").

Specifically, this testimony (a) demonstrates that "economic lives" should be used in calculating "economic depreciation rates" for use in forward-looking cost studies, and (b) shows that relying on traditional methods for establishing prescribed lives are not appropriate for this study.

1 Q. PLEASE SUMMARIZE YOUR TESTIMONY.

2 A. The historical methodology for developing prescribed lives is inappropriate to use in
3 developing economic lives. The economic lives used in GTE's cost studies are based on a
4 forward-looking approach and are therefore more accurate estimates of the lives of the assets
5 than the prescribed lives. GTE believes that the same economic lives it has been booking
6 on a financial reporting basis since 1996 should also be used in the cost models to calculate
7 the costs of unbundled network elements and for universal service support.

8

9 Economic depreciation measures the decline in an asset's value from all causes, including
10 competition and technological change. When all local exchange companies were monopoly
11 providers, regulators could defer capital recovery without affecting the ability of the
12 regulated company to recover its investments. With the advent of local competition,
13 regulators no longer have the luxury of postponing capital recovery in the rate setting
14 process. The changing telecommunications environment must be taken into consideration
15 when determining the proper recovery period of an asset. The methodology described herein
16 considers these developments.

17

18 Q. HOW IS YOUR TESTIMONY ORGANIZED?

19 A. In Section II, I will discuss the conflicting statements in the FCC Universal Service Order
20 regarding depreciation inputs to forward-looking cost studies. As I will explain in Section
21 III, economic lives must be used in forward-looking cost studies. In Section IV, I will
22 discuss why the new competitive environment, in which GTE now operates, requires that

need for economic depreciation parameters. In Sections V and VI, I will explain how GTE's economic lives were developed. Section VII demonstrates that GTE's proposal is reasonable when benchmarked against other telecommunications providers. Section VIII, shows that other Commissions, such as California, Missouri and Michigan have already endorsed the use of GTE's proposed economic lives. In Section IX, I will demonstrate that the current FCC ranges are clearly outdated and inappropriate for any forward-looking analysis.

II. UNIVERSAL SERVICE FUND CRITERIA

Q. HAS THE FCC CLEARLY STATED WHAT DEPRECIATION INPUTS SHOULD BE USED IN COST STUDIES TO CALCULATE UNIVERSAL SERVICE FUND REQUIREMENTS?

A. No. The FCC has issued conflicting statements regarding its exceptions for depreciation inputs. For instance, the FCC has stated that depreciation inputs "must" be within FCC ranges. However, the FCC has also stated that depreciation lives merely "should" be within the FCC ranges. The FCC has signaled possible acceptance of depreciation lives outside the existing ranges by requiring forward-looking inputs, and acknowledging that its current range is outdated. In addition, the FCC has stated that they will look to the Joint Board's recommendations on forward-looking costs, including depreciation inputs Also, the FCC recognizes the states authority to determine their own appropriate forward-looking inputs, including depreciation.

Q. COULD YOU PLEASE CITE SPECIFIC REFERENCES WHERE YOU CONSIDER THE FCC'S FIFTH CRITERIA REGARDING DEPRECIATION INPUTS TO BE CONFLICTING?

A. Yes. The FCC's statements concerning it's fifth criteria are conflicting for the following reasons:

a. The Report and Order (Order) on Universal Service states that "[e]conomic lives...must be with the FCC-authorized range."[1]

b. However, the FCC's Public Notice dated February 27, 1998 states: "Economic lives and future net salvage percentages used in calculating depreciation expense ***should*** be with the FCC authorized range..."[2]

c. The Order further states: "We will seek the Joint Board's assistance in developing our methods for calculating forward looking economic costs."[3]

d. Finally, the Order states: "We recognize that Federal determinations of forward-looking economic cost must acknowledge state actions ... most states currently are conducting their own proceedings to determine forward-looking economic costs ... Our determinations of forward-looking economic cost for

[1]FCC Docket 97-157, adopted May 7, 1997, para 250 (5)

[2]DA 98-217, released February 27, 1998, *emphasis added*

[3]FCC Docket 97-157, adopted May 7, 1997, para 249

1 the purpose of determining federal universal service support for rural, insular,
2 and high cost areas ***must be*** coordinated with these ongoing proceedings."[4]
3
4 The FCC has thus been somewhat contradictory on whether depreciation lives "should" or
5 "must" be within the FCC's range. As I discuss in Section IX, however, even the FCC
6 recognizes that it's current depreciation ranges are outdated and are clearly not forward-
7 looking. The FCC stated that it will seek the Joint Board's recommendations, and the Joint
8 Board has recommended significant changes for forward-looking depreciation inputs. The
9 Order also stated that the FCC must recognize the states' authority, and several states have
10 already adopted GTE's forward-looking depreciation inputs.
11
12 The one thing that is clear from the FCC statements is that the cost model must use "forward-
13 looking" economic depreciation parameters. GTE proposes company specific forward-
14 looking economic depreciation parameters for use in this docket. A complete list of these
15 parameters is attached as Exhibit AES-1.

[4]FCC Docket 97-157, adopted May 7, 1997, para 205, *emphasis added*.

III. ECONOMIC LIVES MUST BE USED 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.

1 Q. WHY ARE ECONOMIC LIVES SHORTER THAN PRESCRIBED LIVES?

2 A. Historically, regulatory commissions have prescribed asset lives based on the assumptions
3 that there would be little or no competition, and that technological innovation would
4 continue at its traditional pace. The Telecommunications Act of 1996 ("Act") implements
5 a competitive environment that invalidates those basic assumptions.

6

7 As noted above, the economic life of an asset is the period of time over which that asset is
8 used to provide economic value. Both increased competition and technological change
9 shorten the period over which an asset will provide economic value. In a world where GTE
10 was the sole provider, it was able to keep old assets on the books, even after their economic
11 life had expired, because depreciation rates were based upon artificially long asset lives. By
12 basing depreciation rates on long asset lives, the depreciation rates were lower and the period
13 of time over which the asset was depreciated was longer. These longer depreciation lives
14 helped state commissions to keep consumer prices low. Today's current market environment
15 – which will reduce the length of time over which GTE must recover its investment in an
16 asset – renders using artificially long asset lives in calculating depreciation rates
17 unsustainable.

18

19 Q. HAS THE NEBRASKA PUBLIC SERVICE COMMISSION ("NPSC") FOLLOWED THE
20 TRADITIONAL METHOD FOR SETTING DEPRECIATION LIVES IN NEBRASKA?

A. Yes. Historically, the NPSC has followed the traditional method for setting depreciation rates. However, in the most recent represcription, the NPSC recognized that copper cable must be recovered sooner than traditional methods allow, and granted a large amortization.

Q. WHEN ESTIMATING ECONOMIC LIVES, IS IT POSSIBLE TO USE TRADITIONAL LIFE ESTIMATION TECHNIQUES?

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 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 being used 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.