COMMONWEALTH OF MASSACHUSETTS

DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

Investigation by the Department of Telecommunications and Energy on its own Motion into the Appropriate Pricing, based upon Total Element Long-Run Incremental Costs, for Unbundled Network Elements and Combinations of Unbundled Network Elements, and the Appropriate Avoided Cost Discount for Verizon New England, Inc. d/b/a Verizon Massachusetts' Resale Services in the Commonwealth of Massachusetts	D.T.E. 01-20

DIRECT TESTIMONY OF RICHARD B. LEE

ON BEHALF OF AT&T

May 8, 2001

Testimony of Richard B. Lee

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I.INTRODUCTION

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

A. My name is Richard B. Lee. I am Vice President of the economic consulting firm of Snavely King Majoros O'Connor & Lee, Inc. ("Snavely King"). My business address is 1220 L Street, N.W., Suite 410, Washington, D.C. 20005.

Q. WHAT IS YOUR EDUCATIONAL BACKGROUND?

A. I earned a Bachelor of Science degree in Industrial Administration with High Honors from Yale University in 1961. I earned a Master of Business Administration degree with Distinction from the Harvard Business School in 1963.

Q.PLEASE DESCRIBE SNAVELY KING.

A.Snavely King, formerly Snavely, King & Associates, Inc., was founded in 1970 to conduct research on a consulting basis into the rates, revenues, costs and economic performance of regulated firms and industries. The firm has a professional staff of 10 economists, accountants, engineers and cost analysts. Most of its work involves the development, preparation, and presentation of expert witness testimony before Federal and state regulatory agencies. Over the course of its 30-year history, members of the firm have participated in over 500 proceedings before almost all of the state commissions and all Federal commissions that regulate utilities or transportation industries.

Q.PLEASE DESCRIBE THE TYPE OF WORK YOU HAVE PERFORMED WHILE AT SNAVELY KING.

A.Since joining Snavely King in 1991, I have assisted clients in proceedings before the

Federal Communications Commission ("FCC") related to a variety of matters. Attachment 1 is a list of the FCC filings I have prepared on behalf of the General Services Administration ("GSA"). The GSA represents the customer interests of the Federal Executive Agencies in matters before the FCC.

I have also assisted clients in proceedings before various state commissions related to the telephone, cellular telephone and electric industries.

Q.HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY IN ANY STATE REGULATORY PROCEEDING?

A.Yes, I have. Attachment 2 is a list of my numerous appearances before state regulatory agencies throughout the country on behalf of various clients.

Q. WHAT WAS YOUR EMPLOYMENT PRIOR TO JOINING SNAVELY KING?

A. From 1980 to 1990, I was employed by American Telephone and Telegraph Company ("AT&T") in its Federal Regulatory Affairs Division. As Regulatory Vice President - Financial and Accounting Matters, I represented AT&T before the FCC in all financial and accounting matters. In that capacity, I directed the preparation and presentation of all AT&T Communications depreciation represcription filings before the FCC. I also conceived and developed a methodology which reduced the administrative burden of AT&T's depreciation filings by over 90 percent. Prior to divestiture, I directed the preparation and presentation of all Bell Operating Company ("BOC") depreciation filings before the FCC.

From 1963 to 1980, I was employed by the New York Telephone Company. I held a variety of progressively responsible positions leading to a position representing the

Company in accounting matters before the New York Public Service Commission. In this capacity, I participated in a number of general rate cases and related proceedings.

My complete resume is attached as Attachment 3.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. AT&T has asked me to identify the depreciation parameters appropriate for use in Total Element Long-Run Incremental Cost ("TELRIC") studies for the development of unbundled network element ("UNE") rates for Verizon-Massachusetts ("Verizon-Mass").

Q. WHAT DO YOU CONCLUDE?

A. I recommend that the projection lives and future net salvage values last prescribed by the FCC for Verizon-Mass should be used in developing UNE rates. The specific projection lives and net salvage percents prescribed for Verizon in Massachusetts can be found in Attachment 6 to my direct testimony.

II. FCC PROJECTION LIVES ARE FORWARD-LOOKING

Q. DOES THE FCC SPECIFY THE PLANT LIVES TO BE USED IN THE PRICING OF UNBUNDLED NETWORK ELEMENTS?

A. Yes, indirectly. The FCC's rules require – in 47 C.F.R. § 51.505(a) – that only forward-looking costs be used in the setting of interconnection prices. This requires the use of "economic depreciation rates," as specified in 47 C.F.R. § 51.505(b)(3). To comply with this guideline, the plant lives used must be based upon the expected economic

lives of newly placed plant.[1] In depreciation proceedings, such forward-looking economic plant lives are termed "projection lives," to differentiate them from "remaining lives" and "average service lives" which reflect past plant placements.

Q. WHAT DO YOU CONSIDER TO BE THE MOST REALISTIC ESTIMATES OF PLANT PROJECTION LIVES?

A. In general, I believe the projection lives prescribed by the FCC to be the most realistic estimates of plant projection lives. Pursuant to statutory responsibility, see 47 U.S.C. § 220(b), the FCC has been prescribing depreciation rates for telephone companies for over 50 years. Until recently, it reviewed full studies submitted by the largest companies on a triennial basis. Interim updates are also performed. The FCC's projection life prescriptions are the result of its analysis of depreciation studies filed by carriers and performed in consultation with state regulatory commission staffs. The projection lives that the Department relied upon for developing Verizon-Mass's UNE costs in 1996 in its Consolidated Arbitrations Docket are the result of that rigorous review process.

Q. ARE THE PROJECTION LIVES PRESCRIBED BY THE FCC FORWARD-LOOKING?

A. Yes, they are. As the FCC recently noted, beginning in 1980 it "departed from its previous practice of relying largely on historical experience to project equipment lives and began to rely on analysis of company plans, technological developments, and

[1] The economic life of an asset is its total revenue producing life. Public Utility Depreciation Practices ("Depreciation Practices"), National Association of Regulatory Utility Commissioners, August 1996, p. 318.

other future-oriented studies."[2]

In 1995, the FCC reaffirmed its forward-looking orientation in connection with the simplification of its depreciation represcription practices. The FCC prescribed a range of projection lives which could be selected by carriers for prescription on a streamlined basis. The FCC stated that these ranges were based upon "statistical studies of the most recently prescribed factors. These statistical studies required detailed analysis of each carrier's most recent retirement patterns, the carriers' plans, and the current technological developments and trends."

[3] In 1999, the FCC completed a review of these ranges and updated them as appropriate.

[4] The FCC stated:

> These ranges can be relied upon by Federal and state regulatory commissions for determining the appropriate depreciation factors for use in establishing high cost support and interconnection and UNE prices.

[5]

Indeed, the FCC further stated:

> In adoption a forward-looking mechanism for high-cost support, we found that depreciation expense calculations based on the Commission's prescribed projection lives and salvage factors represent the best forward-looking estimates of depreciation lives and net salvage percentages.

[6]

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[2] FCC, 1998 Biennial Regulatory Review-Review of Depreciation Requirements for Incumbent Local Exchange Carriers, CC Docket 98-137, Report and Order, FCC 99-397, released December 30, 1999 ("1999 Update"), para. 5.

[3] FCC, Simplification of the Depreciation Prescription Process, CC Docket No. 92-296 ("Prescription Simplification" proceeding), Third Report and Order, No. FCC 95-181, released May 4, 1995, p. 6.

[4] 1999 Update, para. 14.

[5] Id., para. 34.

[6] FCC, United States Telephone Association's Petition for Forbearance from Depreciation Regulation of Price Cap Local Exchange Carriers, ASD 98-91, Memorandum Opinion and Order, FCC 99-397, released December 30, 1999, para. 61 (emphasis added).

Q. IS THERE EMPIRICAL EVIDENCE THAT THE PROJECTION LIVES PRESCRIBED BY THE FCC HAVE BEEN FORWARD-LOOKING?

A: Yes. As I will show, recent trends in depreciation reserve levels in the industry and for Verizon – New England ("Verizon-NE") provide empirical evidence that the projection lives prescribed by the FCC have been forward-looking. As the FCC has recognized, "[t]he depreciation reserve is an extremely important indicator of the depreciation process because it is the accumulation of all past depreciation accruals net of plant retirements. As such, it represents .the amount of a carrier's original investment that has already been returned to the carrier by its customers."[7]

The FCC's recognition of the reserve level as an indicator of the depreciation process can best be understood by examining a steady state example. Assume that we start with a stable environment in which the average age of plant is 9 years and the expected life of plant is 27 Years. In this case, the add rate, retirement rate and straight-line accrual rate are all 3.7 percent, and the reserve level is stable at 33 percent of plant in service (9 years/27 years).

[8] As we vary these factors, we can see the effect on the reserve level. For example:

- If the add rate were to increase above 3.7 percent, the reserve level would go down. This would not be a cause for concern, since the average age of plant would similarly represent a lower percent of its

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[7] FCC, Report on Telephone Industry Depreciation, Tax and Capital/Expense Policy, Accounting and Audits Division, April 15, 1987 ("AAD Report"), pp. 5-6

[8] Reserve will stabilize at 33 percent assuming a triangular (straight-line) mortality curve. See Notes for Engineering Economics Courses, American Telephone and Telegraph Company, Engineering Department, 1966, p. 121.

expected life.

- If the retirement rate were to increase above 3.7 percent, the reserve level would go down. This would be a cause for concern, since it would indicate that the expected life of plant is shorter than previously expected. If the expected life is shorter, the average age of plant would represent a higher percent of its expected life, and the reserve should be higher, not lower than 33 percent.
- If the accrual rate were to increase above 3.7 percent, the reserve level would go up. This would not be appropriate absent a reduction in the expected life of the plant, since it would indicate that the age of plant is higher than 33 percent of its expected life.

In summary, a declining reserve percent would be a reason for concern absent indications that it is merely the result of growth in plant. On the other hand, a rising reserve percent is generally a positive sign that the depreciation process is working well. Indeed, absent indications that the expected life of plant is decreasing, it might be a sign that accrual rates are too high.

Q: WHAT DOES THE EMPIRICAL EVIDENCE REGARDING RESERVE LEVELS TELL US?

A: Attachment 4 to this direct testimony displays reserve levels and other plant rates since 1946 for all local exchange carriers ("LECs") providing full financial reports to the FCC. As shown in the graph on Page 1 of Attachment 4, reserve percents decreased steadily following World War II due to industry growth. These declines continued

through the 1970's due in part to accrual rates which were too low.[9]

As shown in the graph on Page 1 of Attachment 4, however, the FCC's change to forward-looking depreciation practices in the early 1980s resulted in a dramatic rise in reserve levels after 1980. The composite reserve level rose from 18.7 percent in 1980 to an historic high of 52.8 percent in 2000. This track record indicates that the depreciation process is resulting in adequate depreciation accruals, and that the FCC's projection life estimates have been forward-looking and unbiased.

Confirmation of the forward-looking nature of current FCC prescriptions can be obtained by comparing the 2000 accrual rate of 6.9 percent (Attachment 4, Page 4, Column l) to the 2000 retirement rate of 3.7 percent (Attachment 4, Page 4, Column k). The prescription of an accrual rate much higher than the current retirement rate indicates an expectation that the retirement rate will be much higher in the future. If the FCC were prescribing depreciation rates based upon historical indicators, it would be prescribing depreciation rates in the range of 3 to 5 percent.

Attachment 5 confirms that these national trends apply also to Verizon-NE. The depreciation reserve level for Verizon-NE has risen from 43.3 percent in 1990 to 55.4 percent in 2000 (see Attachment 5, column m), despite a growth in plant of over 65 percent. Verizon-NE's depreciation rates have averaged 7.2 percent over the last eleven years, while its retirement rates have averaged only 3.2 percent (see Attachment 5, columns l and k, respectively).

[9] AAD Report, p. 7.

III. THE DEPARTMENT ADOPTED FCC LIVES IN 1996

Q. WHAT LIVES DID THE MASSACHUSETTS DEPARTMENT OF PUBLIC UTILITIES ADOPT WHEN IT SET RATES FOR UNBUNDLED NETWORK ELEMENTS IN 1996?

A. In the 1996 Consolidated Arbitrations proceeding, the Department of Public Utilities adopted the FCC's forward-looking prescription lives. The Department explained as follows:

> As noted by Mr. Lee, the FCC's represcription process is based on a forward-looking orientation, including current technological developments and trends. He notes that this has been made evident in increasing depreciation reserve levels for NYNEX. He also states that the FCC projection lives result in a composite 7.4 percent depreciation rate, despite an average retirement rate of only 3.3 percent. This, he asserts, is a clear indication that the FCC's projection lives are forward-looking, because, if it were using a historical approach, the composite rate would be in the 3 to 4 percent range (AT&T Unmarked Exh. at 6-4).
>
> Under the terms of the Local Competition Order, it is NYNEX's burden to prove the reasonableness of its proposed depreciation rates. Dr. Vanston's testimony does not effectively rebut Mr. Lee's characterization of the FCC process, and, although he has offered general opinions about the degree of technological change that might occur in the industry, he has presented no NYNEX-specific analysis that might cause us to think that the FCC lives are not appropriate.
>
> We find, based on this record, that the projection lives prescribed by the FCC in its last represcription of NYNEX's depreciation rates are the kind of forward-looking projection lives required in a TELRIC study. [10]

[10] Phase 4 Order, Consolidated Arbitrations Docket, DPU 96-73/74, et al., Decision dated December 4, 1996, pp. 55-56.

IV. OTHER STATE TELRIC DECISIONS SUPPORT FCC LIVES

Q. HAS SNAVELY KING PROVIDED TELRIC DEPRECIATION TESTIMONY IN OTHER FORMER BELL ATLANTIC STATES?

A. Yes. Snavely King provided essentially the same testimony as in this proceeding in TELRIC proceedings in all Bell Atlantic states on behalf of AT&T or AT&T/MCI. In most states where orders have been issued, lives prescribed by the FCC, or similar state prescribed lives, have been adopted.[11]

In New York, the Commission adopted prescribed lives and stated:

> We find ample basis for crediting AT&T's argument that the represcription process has become more forward-looking.[12]
>
> * * *
>
> Given the (rebuttal) presumption, under both the First Report and Order and the cost manuals, in favor of the prescribed rates, a decision that those rates are acceptable obviates detailed evaluation of New York Telephone's proposal. It is worth noting, however, that New York Telephone has not shown why GAAP-based rates are proper, nor has it fully come to grips with the concern that adoption of its GAAP-based depreciation rates would unduly inflate the cost of network elements, in effect requiring its competitors to subsidize its own competitive ventures.[13]

The Delaware Commission adopted the FCC's prescribed lives as proposed by

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[11] In Pennsylvania, lives used in previous proceeding were adopted (Docket A-310203F002, April 10, 1997). In Vermont, lives previously prescribed by the Public Service Board were adopted (Docket 5713, February 4, 2000).

[12] Cases 95-C-0657, 94-C-0095, 91-C-1174, Opinion No. 97-2, pp. 47-48.

[13] Id., p. 48.

AT&T.

[14] The Delaware Hearing Examiners stated:

> We agree with Staff, OPA, MFS and AT&T that the use of unreasonably short economic lives will lead to excessive costs for the unbundled network elements. We do not find persuasive BA-Del's criticisms of the lives recommended by AT&T witness Lee. The FCC prescribed lives are forward-looking and appropriate to use in a TELRIC model. (Ex. 12 at 5.) They are determined by an independent unbiased agency with 50 years' experience prescribing depreciation rates for telephone companies. (Id. at 4.)
>
> [15]
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> * * *
>
> We agree with Staff, OPA, MFS and AT&T that the depreciation lives proposed by BA-Del witness Vanston are too short and should be rejected. We found the testimony of AT&T witness Lee to be credible and we will adopt the forward-looking plant lives and depreciation rates prescribed by the FCC for BA-Del, as recommended by Mr. Lee.
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> [16]

In adopting FCC lives, for the most part, the West Virginia Commission stated:

> After considering the testimony and evidence presented by the parties, the Commission concludes that, while several of the assumptions advanced by Mr. Vanston regarding technological obsolescence and substitution have a logical validity, those assumptions are not sufficiently supported by the evidence to be adopted by the Commission for purposes of establishing depreciation lives.
>
> [17]
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> * * *
>
> The Commission will adopt, for the most part, AT&T's argument that the Commission should base BA-WV's depreciation lives on those lives prescribed by the FCC during the represcription process. Such lives do take into account technological advances and telecommunications carriers' actual retirement of plant. Moreover, the FCC has indicated that these lives, or those adopted by state commissions, are an

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[14] Docket 96-324, April 29, 1997.

[15] PSC Docket No. 96-324, Findings and Recommendations of the Hearing Examiners, April 7, 1997, p. 40.

[16] Id., p. 41.

[17] Case No. 96-1516-T-PC, April 21, 1997, pp. 40-43.

> "appropriate starting point" for establishing depreciation lives for an ILEC's physical plant. [18]

The Maryland Commission also adopted FCC lives, stating:

> After reviewing the record on this issue, we will accept the consensus of the parties (excepting Bell) that the FCC lives should be utilized at this time in determining the appropriate depreciation rates for pricing unbundled network elements. . . . On this record, we note the difficulty in reviewing and verifying the shortened lives advocated by witness Vanston, while the relatively recent FCC prescribed depreciation rates have undergone scrutiny and been accepted by the FCC as well as other jurisdictions. [19]

The Virginia Commission adopted FCC lives and stated:

> We adopted the AT&T/MCI–recommended depreciation parameters (Exhibit RBL-78, Attachment 6, Column "FCC VA"), in which Staff concurred, for forward-looking, economic lives and net salvage percentages. These parameters are the best supported and most reasonable data in this proceeding. [20]

Q. HAVE ANY OTHER STATE COMMISSIONS RELEASED DECISIONS WHICH ADOPTED FCC PRESCRIBED PROJECTION LIVES, OR SIMILAR STATE PRESCRIBED LIVES, FOR USE IN TELRIC CALCULATIONS?

A. Yes, indeed. Other state Commissions adopting prescribed projection lives for use in TELRIC calculations include Texas, [21] Wyoming, [22] Ohio,

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18 Id.
19 Case No. 8731 (Phase II), September 22, 1997, p. 42.
20 Docket 970005, Order, May 22, 1998, p. 6.
21 Docket 16189, et al., November 8, 1996.
22 Docket 70000-TF-96-319, 72000-TF-96-95, April 23, 1997.

[23] Colorado,

[24] Louisiana,

[25] Georgia,

[26] Nevada,

[27] Illinois,

[28] Florida,

[29] South Carolina,

[30] Alabama,

[31] Mississippi,

[32] North Carolina,

[33] Hawaii,

[34] and Tennessee.

[35]

Q. HAS THE FCC NOTED THE USE OF ITS PRESCRIPTIONS IN STATE UNE CASES?

A. Yes. The FCC found that it should continue to prescribe depreciation lives, specifically

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[23] Docket 96-922-TP-UNC, June 19, 1997.
[24] Docket 96S-331T, July 28, 1997.
[25] Docket U-22022/22093, October 22, 1997.
[26] Docket 7061-U, December 16, 1997.
[27] Docket 96-9035, February 5, 1998.
[28] Docket 96-0569, February 17, 1998.
[29] Docket 960833-TP, April 29, 1998.
[30] Docket 97-374-C, June 1, 1998.
[31] Docket 96029, August 25, 1998.
[32] Docket 97-AD-544, August 25, 1998.
[33] Docket P-100, Sub. 133d, December 10, 1998.
[34] Docket 7702, January 1, 1999.
[35] Docket 97-01262, January 25, 1999.

because doing so is an important input used by State commissions to set UNE rates. The FCC stated as follows in 1999:

> We are concerned that forbearance from depreciation regulation by the Commission might deprive state regulatory commissions of valuable information that they may want or need in setting rates for interconnection and UNEs, and might enable incumbent LECs to raise arbitrarily the rates for essential inputs that competitors must purchase from the incumbent LECs. This could have an adverse impact on the development of local competition.[36]

V. EFFECT OF UNREALISTICALLY SHORT LIVES

Q. WHAT EFFECT WOULD THE USE OF PLANT LIVES IN TELRIC CALCULATIONS WHICH ARE UNREALISTICALLY SHORT HAVE ON COMPETITION?

A. The use of unrealistically short lives would cause unbundled network elements to be priced above TELRIC. Such pricing would be contrary to the FCC's guidelines and impede the development of competition based upon the purchase of unbundled network elements in the local market.

VI. CONCLUSION

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

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[36] 1999 Update, para. 33. (Footnote deleted).

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