BEFORE

THE PUBLIC SERVICE COMMISSION OF

SOUTH CAROLINA

DOCKET NO. 92-227-C - ORDER NO. 93-206

MARCH 3, 1993

IN RE: Application of BellSouth Telecommunications, Inc. for Approval of Revised Depreciation Rates and Amortization Schedules.	)	ORDER APPROVING DEPRECIATION RATES AND AMORTIZATION SCHEDULES

This matter comes before the Public Service Commission of South Carolina (the Commission) by way of an Application filed July 23, 1992 by Southern Bell Telephone & Telegraph Company (Southern Bell or the Company) requesting approval of new VG/ELG Depreciation rates and amortization schedules. The Application alleges that on June 1 through 4, 1992, representatives of Southern Bell, Federal Communications Commission (F.C.C.), the Commission and representatives of the Office of the Consumer Advocate of South Carolina (the Consumer Advocate) convened to address the need of Southern Bell to revise its existing depreciation rates and amortization schedules. As a result of these meetings, Southern Bell proposed substantial changes to its rates and schedules it had filed which would have resulted in increased interstate and intrastate depreciation expense of approximately $28 million dollars on a total company basis. According to the Company's Applications, the rates and schedules tentatively agreed to by the Staff and the Commission, Southern Bell and the F.C.C. at the

"three-way meeting" would allow increased intrastate depreciation expense of approximately $12.2 million dollars. This Application was filed pursuant to S.C. Code Ann. §58-9-350 (1976, as amended).

The matter was duly noticed to the public. Petitions to Intervene were filed on behalf of the Consumer Advocate for the State of South Carolina and the South Carolina Cable Television Association (SCCTA). A hearing was commenced on January 6, 1993 at 10:30 a.m. in the Commission's Hearing Room, the Honorable Henry G. Yonce presiding. Harry M. Lightsey, III, Esquire, William F. Austin, Esquire, Nancy B. White, Esquire and R. Douglas Lackey, Esquire, represented Southern Bell. Elliott F. Elam, Jr., Esquire, represented the Consumer Advocate. John Hoefer, Esquire, represented the South Carolina Cable Television Association and F. David Butler, Staff Counsel, represented the Commission Staff.

Southern Bell presented the testimony of Jerry L. Wilson, D.W. Lee, Jr. and S.L. Barreca. The Consumer Advocate presented the testimony of Michael J. Majoros, Jr. and the Commission Staff presented the testimony of James M. McDaniel.

Jerry L. Wilson of Southern Bell presented the Company's depreciation studies and proposed depreciation rates. Wilson testified that subsequent to the preparation of the study filed with the Commission on July 23, 1992, Southern Bell met with representatives of the F.C.C., the South Carolina Public Service Commission Staff and others and reached agreements regarding depreciation rate parameters. The parameters and resulting depreciation rates and expenses filed on July 23, 1992 are the

product of the agreement reached with the Commission Staff and the F.C.C. for determining appropriate depreciation rates for any particular asset. The Company stated that it used the depreciation rate formula for all of its assets and also projected future net salvage for its assets as well. Wilson testified that the Company projects average remaining lives and that these are a critical input to the depreciation rate calculation in essentially three ways. The first method projects average remaining lives through the analysis of historical data which is referred to as mortality analysis. The second method of projecting requires the use of current planning information and technology forecasting over the life cycle of certain assets, which are expected to be significantly impacted by technological alternatives in the future. Examples of asset accounts of this nature including metallic (copper) cable and circuit equipment. For its accounts most affected by expected changes in technology, the Company has relied on the third method, which is the substitution analysis, to determine the average length remaining lives of the assets. Wilson went on the summarize his statement by stating that, overall, the Company is proposing a change in total depreciation accruals resulting in an increase of $14.9 million dollars total company in annual depreciation expenses effective January 1, 1992. This equates to a $12.2 million dollar expense increase on an intrastate basis.

Southern Bell also presented the testimony of Daniel W. Lee, Jr. who testified on the fundamental planning process that is used

in Southern Bell's construction plans to determine reasonable and economic network modernization deployments. Lee testified that network modernization deployments are projects that can improve the current method of providing existing services to obtain greater efficiencies and reduce costs for which the Company can provide new services that customers expect or want as part of their telephone service. Generally, Lee testified that these projects involve replacement of existing plant with newer technology. Lee gave the example of replacing an analog switch with a digital switch or a replacement of copper facilities with fiber optic facilities. Lee went on to describe the fundamental planning processes consisting of some seven steps. Lee stated that it is not unusual to see that the alternative of continuing with existing technology is the most economic plan in which case no further planned documentation in required. Lee testified that factors called "triggers" initiate the use of the fundamental planning process and its subsequent economic analysis. Lee described the planning tools used in the fundamental planning process as being mechanized economic modeling tools and screening criteria. Lee concluded his testimony by stating that the fundamental planning process is a dynamic one, and that a review and analysis of the process is constantly underway.

Southern Bell further presented the testimony of S.L. Barreca. Barreca testified as to average remaining life for depreciable assets. Barreca testified that several assets are particularly susceptible to changes in technology. At present, these assets include switching equipment, circuit equipment, copper cable, and

fiber cable. Barreca went on to testify as to a description of the process and techniques used in the development of average remaining life for the technology categories mentioned above. Life cycle analysis is a process used to assess the deployment of new technologies, the displacement of old technologies, and to determine the resulting average remaining life. Life cycle analysis is a generic term which implies a study of the entire life span of the technology. Barreca described historical mortality analysis as a life cycle methodology or an existing technology's survival patterns as projected, based on realized mortality experience. Barreca went on to describe substitution analysis, which is technological substitution taking place over time. Barreca further describes the Fisher-Pry mathematical model that defines technological substitution, which Barreca alleges has been shown to be appropriate for substitutions in the telecommunication industry and many other industries. Barreca stated that Southern Bell has found the Fisher-Pry substitution model to be well suited for use in assessing the lifecycles of most network technologies. In most cases where the Fisher-Pry substitution model was used, Barreca stated that its usage was limited to the rapid deployment phase of the lifecycle that is a portion of the lifecycle between 10% and 90%. Barreca illustrated his testimony by citing the example of lifecycle analysis of fiber deployment. Barreca testified that Southern Bell has established a reasonable assessment of lifecycles and average remaining lives of the technology categories and its depreciation study provides the

Commission with a sound basis on which to set Southern Bell's depreciation rates.

The Consumer Advocate presented the testimony of Michael Majoros, Jr. Majoros stated that he could not either endorse or object to Southern Bell's depreciation proposals. Majoros went on to state that in his view, however, Southern Bell was using depreciation to offset sharing under the Company's incentive regulation plan, and he felt that the Commission should examine this problem.

The Commission Staff presented the testimony of James M. McDaniel, Chief of the Telecommunications Department of the Utilities Division of the Commission. McDaniel testified as to the three-way agreement reached among the representatives of the F.C.C., the Company and the Commission Staff. McDaniel stated that these parties agreed to the appropriate parameters to be used to determine the appropriate depreciation rates. The Commission Staff agreed with the F.C.C. Staff on parameters such as curve shapes, projected lives, future net salvage values and depreciation methodologies. Also, the F.C.C. Staff proposed the use of a different methodology for setting the depreciation rate for the Analog Electronic Switching Account. The Staff concurred with this methodology. While the Company expressed some reservations about the parameters, the Company subsequently agreed to the parameters and the methodology. McDaniel presented an exhibit to show the F.C.C. and Company agreement for all states in which Southern Bell operates. According to McDaniel, the exhibit demonstrated the

similarity of these parameters among all the states and that the projected life of the accounts did not vary greatly between States and the major plant accounts, switching accounts and circuit accounts. McDaniel testified that the major plant accounts include the switching accounts, cable accounts, circuit accounts, and computer accounts.

McDaniel noted in his review of the proposed parameters that there was one difference between the Company's filing with the F.C.C. and this Commission. The difference was in the remaining life of the office equipment account. The Company filed a remaining life of 6.5 years with the F.C.C. in contrast with the 5.8 years with this Commission. McDaniel recommended that the Company use 6.5 years remaining life as submitted to the F.C.C. for the office equipment account. McDaniel stated that with this change, the Company would propose intrastate parameters which will be consistent with those filed in the interstate jurisdiction. Based on this recommended change, the depreciation rate for the office equipment account would be 12.3% as opposed to the Company proposed 13.8%. Company witnesses were questioned on this matter, and had no problem with the Commission Staff position with regard to the depreciation rate for the office equipment account.

McDaniel stated that the majority of the increase and depreciation expense would occur in the switching plant accounts in this case. The parameters and methodology agreed to by the Commission Staff would result in an increase in depreciation expense of $13.4 million dollars for the digital and electronic

switching accounts. The proposed depreciation rate for the electronic analog switching account will increase depreciation expense by approximately $9.8 million dollars alone. The rate change proposed for this account was based on a schedule for replacement of the existing analog switches. The schedule reflected an average year for final retirement of the switches to be 1995.1. The agreement for digital switching resulted in a decrease in a projected service life in this account by 3 years. The decrease in service life for digital switching is a principal reason for the increase in the depreciation rate for this account. According to McDaniel, the proposed change in this depreciation rate causes an increase in total company expense of approximately $3.5 million dollars.

Another account where a large change in accruals will occur is the general purpose computers account. The change in depreciation accruals for this account is approximately $4 million dollars.

The proposed depreciation rates for the cable accounts will decrease depreciation expense accruals for these accounts by approximately $1.5 million dollars based on the Company's January 1, 1992 investment in the cable accounts. This decrease in depreciation expense included the buried cable accounts, underground cable accounts, aerial cable accounts, submarine cable, intra-building network cable and aerial wire.

McDaniel summarized his testimony by stating that the depreciation rates proposed as a result of the three-way meeting, including McDaniel's recommended change for the office equipment

account, are reasonable for use on an intrastate basis. The underlying parameters used for the development of the depreciation rates are reasonably consistent among all Southern Bell states. These parameters were agreed to by the Commission Staff, the F.C.C. Staff and the Company, after receipt of input from all participants in the three-way meeting since the resulting depreciation rates emphasize the need for a greater increase in accruals and the switching equipment account. Since the Southern Bell study reflects that the electronic analog switching technology schedule for final retirement over the next several years, McDaniel recommended that the Commission approve the proposed depreciation rates.

Based upon the evidence in the record presented to the Commission in this matter, the Commission makes the following findings of fact and conclusions of law:

1. That the Commission has the authority to prescribe Southern Bell's intrastate depreciation rates regardless of any action taken by the F.C.C., pursuant to the Louisiana Public Service Commission v. F.C.C. case. That at the onset, it must be established that the Commission has the authority to prescribe Southern Bell's intrastate depreciation rates. S.C. CODE ANN. §58-9-350 (1976, as amended) states that: "[e]very telephone utility shall have the right, and may be so required to charge annually as an operating expense a reasonable sum for depreciation and credit it to a reserve account for such purpose...." This Code section also provides that the Commission may control or limit a telephone utility's depreciation reserve. It also states, however,

that nothing in this section shall be construed to be in conflict or in violation with the Communications Act of 1934 or any lawful Order of the F.C.C. Prior to this depreciation request, the United States Supreme Court issued its landmark depreciation decision in 1986. In Louisiana Public Service Commission v. F.C.C., 476 U.S. 355 (1986), the Supreme Court held that the F.C.C. did not possess broad authority to describe depreciation rates for both the telephone utilities interstate and intrastate operations and could not preempt the states in this area. The Court stated that the right to set intrastate depreciation rates was reserved for the states by virtue of 47 U.S.C. §152(b). The Commission finds that S.C. CODE ANN. §58-9-350 (1976, as amended) is not in conflict with the Communications Act of 1934 nor with any lawful order of the F.C.C. The Commission further finds that it has the authority to prescribe Southern Bell's intrastate depreciation rates herein.

2. That as per the testimony of Staff witness McDaniel, the depreciation rates agreed upon by the parties that the three-way meeting are appropriate for use on an intrastate basis.

3. That the proposed rates will help Southern Bell meet its need for adequate capital recovery.

4. That the depreciation rates approved herein will result in an annual increase in Southern Bell's intrastate depreciation expense of $12.2 million dollars.

5. Consumer Advocate witness Majoros and Staff witness McDaniel discussed the possible effects of depreciation expense on Southern Bell's incentive regulation plan. McDaniel stated that

"increase in depreciation expense would be recognized possibly as an exogenous factor and would be viewed in the context of seeing whether the Company met the efficiencies and productivity requirements of the Commission in its review and the Company's eligibility for continued operation under incentive regulation plan." (Tr. Vol. 2 of 22) The Commission believes that depreciation expense should be viewed as an exogenous factor in terms of the Company's incentive regulation plan in future proceedings and so holds.

6. The South Carolina Cable Television Association argues in its brief that Southern Bell's technology substitution analysis is flawed because of the heavy use of the Fisher-Pry analysis in forecasting accelerated early retirements on many of its switches and circuit equipment. SCCTA also argues that Southern Bell relied also on Fisher-Pry analysis to justify only smaller decreases in depreciation rates for two copper cable accounts. SCCTA argues that the use of the substitution analysis is doubtful, given the fact that measurable substitution is occurred only in analog switching, analog circuit and interoffice cable. For the remaining equipment types i.e., digital switching, analog-digital circuit, circuit and digital circuit, as well as feeder and distribution cable. The old technology still represents 95% of its investment. SCCTA states that both the F.C.C. and witness Barreca agree that the accuracy of predictions based upon the first 5% to 10% of displacement are poor and may overstate the subsequent rate of deployment of new technology, thus generating excessive

depreciation rates for non-substituting equipment. Despite these potential pitfalls, the Commission in the past has accepted the Fisher-Pry analysis as being an acceptable measurement of change. Despite the criticisms leveled by SCCTA, the Commission continues to hold that Fisher-Pry is a reasonable analysis to be employed in this case, especially as applied to the rapid deployment phase of life cycles.

7. In its brief, the SCCTA renews its objection to the admission of the original depreciation study in this Docket. At the hearing, this objection was overruled. The Commission once more overrules this objection. The Commission feels that, if nothing else, the original depreciation study as submitted to the Commission is evidence of the starting point of the parties prior to the three-way meeting and is instrumental in allowing the Commission to determine how the parties finally reached their agreements and from what points the parties reached their agreements. For this reason, the SCCTA's objection is once again overruled.

8. Based upon the foregoing, the Commission finds that the depreciation rates and amortization schedules proposed by Southern Bell and the Commission Staff as reflected in Appendix A, attached hereto and incorporated by reference are reasonable and appropriate and are hereby approved effective January 1, 1992.

BY ORDER OF THE COMMISSION:

Henry D. Jones
Chairman

ATTEST:

Charles W. Dalton
Executive Director

(SEAL)

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MARCH 3, 1993
APPENDIX A

ACCOUNT		SOUTHERN BELL DEPRECIATION RATES Previous	-- Approved -- Effective 1/1/92
2112	Motor Vehicles	10.10%	5.70%
2115	Garage Wk. Equip.	7.90%	20.50%
2116	Other Wk. Equip.	7.90%	6.80%
2121	Buildings	2.30%	2.40%
2122	Furniture	7.30%	9.10%
2123	Office Equipment	10.70%	12.30%
2124	Gen. Pur. Computers	11.10%	20.50%
2211	Analog Switching	9.00%	24.00%
2212	Digital Switching	6.30%	7.20%
2220	Operator Systems	10.80%	9.60%
2231	Radio Systems	10.20%	9.30%
2232	Circuit Equip.		
	-- Other	12.20%	11.90%
	-- DDS	12.10%	13.70%
2311	Station Apparatus	2.50%	3.80%
2341	Large PBX	16.80%	10.80%
2351	Paystations	2.80%	3.30%
2362	Other Terminal Equip	8.00%	8.90%
2411	Poles	4.70%	5.70%
2421	Aerial Cable		
	-- Metallic	5.90%	5.60%
	-- Fiber	6.30%	6.50%
2422	Underground Cable		
	-- Metallic	6.20%	4.70%
	-- Fiber	4.80%	4.30%
2423	Buried Cable		
	-- Metallic	5.90%	6.10%
	-- Fiber	5.70%	4.80%
2424	Submarine Cable	4.80%	6.40%
2426	Intrabuilding Cable	6.90%	5.40%
2431	Aerial Wire	.00%	9.30%
2441	Conduit Systems	1.80%	1.90%