**REBUTTAL TESTIMONY OF**

**DAVID L. KASERMAN**

**ON BEHALF OF AT&T COMMUNICATIONS OF**

**THE SOUTHERN STATES, INC.**

**BEFORE THE**

**FLORIDA PUBLIC SERVICE COMMISSION**

**Docket No. 9[redacted]**

**Filed: August 30, 1996**

## I. IDENTIFICATION OF WITNESS AND PURPOSE OF TESTIMONY

**Q. PLEASE STATE YOUR NAME AND CURRENT POSITION.**

A. My name is David L. Kaserman. My position is Torchmark Professor of Economics at Auburn University.

**Q. HAVE YOU PREVIOUSLY FILED TESTIMONY IN THIS HEARING?**

A. Yes.

**Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

A. My rebuttal testimony responds to several of the economic arguments made by two of BellSouth's witnesses in this hearing. Specifically, the direct testimonies of Dr. Richard Emmerson and Mr. Walter Reid contain some issues that I believe should be brought to the attention of the Florida Commission in order to facilitate pro-competitive arbitration decisions.

While much of these witnesses' testimony is rendered moot by the FCC's "Local Competition Order" issued on August 8th, it is, nonetheless, useful to identify and correct at least some of the inaccuracies they contain. While the FCC Order provides fairly specific guidelines, it leaves some latitude for state commissions to decide the specific pricing and provisioning policies that will govern the contractual arrangements that emerge from the arbitration process. These policies, in turn, will have great importance to consumers, because they will influence strongly the pace at which local exchange markets are transformed from monopoly to competition. As a result, the FCC Order notwithstanding, it is important that the arbitration decisions rendered by this Commission be founded squarely upon sound economic principles.

## II. REBUTTAL OF DR. EMMERSON'S TESTIMONY

**Q. WHAT DOES THE FCC ORDER INDICATE REGARDING THE PRICES OF INTERCONNECTION ARRANGEMENTS AND UNBUNDLED NETWORK ELEMENTS?**

A. As I explained in my Supplemental Testimony, this Order indicates that the prices of these inputs should be "based on the TSLRIC of the network elements."[1] In this respect, the criterion specified by the Order is identical to the pricing recommendation contained in my Direct Testimony, which advocated pricing of interconnection and unbundled network elements at TSLRIC. The Order, however, then goes on to require that these prices be raised above TSLRIC to "include a reasonable allocation of forward looking common costs."[2] In this respect, the Order envisions input prices that exceed by some margin the prices recommended in my prior testimony.

**Q. GIVEN THIS REQUIREMENT, HOW DOES YOUR POSITION DIFFER FROM DR. EMMERSON'S POSITION ON THIS ISSUE?**

A. Our positions differ with respect to the magnitude of the appropriate mark-up above TSLRIC that is indicated by economic principles. Specifically, I believe that sound economic reasoning dictates a very small mark-up, while Dr. Emmerson appears to believe that a very substantial mark-up is justified economically.

**Q. HAVE OTHER ECONOMISTS WHO HAVE WRITTEN ON THE SUBJECT OF EFFICIENT PRICING PROVIDED ANY GUIDANCE CONCERNING WHICH OF THESE POSITIONS IS CORRECT?**

A. Yes. The published (peer reviewed) literature on the subject of efficient pricing provides considerable guidance which unequivocally supports my position that any departure from strict TSLRIC pricing of these inputs should be held to an absolute minimum. At least three strands of that literature support this view. Specifically, the literature on (1) pricing in competitive markets, (2) efficient price structures, and (3) fully distributed cost pricing all suggest that regulators set the prices of these inputs as close as possible to marginal costs (or, as an approximation, TSLRIC).

**Q. HOW DOES THE LITERATURE ON PRICING IN COMPETITIVE MARKETS SUPPORT TSLRIC (OR NEAR-TSLRIC) PRICES?**

A. The literature on pricing in competitive markets has long held that, in equilibrium, competitive prices will equal marginal costs.[3] Indeed, given the assumptions of the competitive model, such pricing is necessary mathematically if firms are attempting to maximize their profits. While not disputing this fundamental proposition, Dr. Emmerson attempts to refute its applicability to the telecommunications industry by

arguing that it holds only for single-product firms. In footnote 3 on page 10 of his testimony, Dr. Emmerson writes:

> If a firm provides a single product, all of its costs are generally included in a calculation of LRIC. Because the majority of the economics literature implicitly or explicitly deals with single product production, a casual reading of parts of the economics literature would lead one to believe that competition drives prices toward LRIC; this is true only for a single product firm.

Emphasis added.

In fact, however, the literature on this subject shows just the opposite. In an article in the American Economic Review in 1987, Glenn MacDonald and Alan Slivinsky demonstrate unequivocally that, in long-run competitive equilibrium, multiproduct firms with common costs will charge prices equal to the marginal costs of the individual products.[4] Therefore, contrary to Dr. Emmerson's claim, the competitive model benchmark of marginal cost pricing is not limited to single-product firms. It carries over in full force to the multiproduct situation, even where substantial common costs are present.

**Q. HOW DOES THE LITERATURE ON EFFICIENT PRICE STRUCTURES SUPPORT YOUR RECOMMENDATION OF PRICING INTERCONNECTION AND UNBUNDLED NETWORK ELEMENTS CLOSE TO TSLRIC?**

A. It has been widely recognized among economists for a very long time that, in situations where marginal cost pricing of a regulated firm's output fails to yield

sufficient revenue to cover that firm's total costs, the first-best efficient solution is to set usage prices equal to marginal costs and recover any resulting revenue shortfall from a lump-sum end-user charge.[5] This pricing structure, known generally as nonlinear pricing or, in its simplest form, a two-part tariff, preserves the efficient signals provided to consumers by marginal cost pricing while providing fully compensatory returns to the regulated firm's overall activities.

In the present application, this means that interconnection and unbundled elements should be priced at (or near) TSLRIC; and if a revenue shortfall should materialize (which I believe is a very unlikely event), it should be recovered through a competitively neutral charge levied on final consumers. Thus, Dr. Emmerson's statement on page 9 of his testimony that "forcing service prices equal to LRIC does not allow for the recovery of the shared costs which are beneficial to society" is flatly mistaken. (Emphasis added.) Setting prices equal to LRIC does, in fact, allow for such recovery in an efficient and competitively neutral manner.

**Q. HOW DOES THE LITERATURE ON FULLY DISTRIBUTED COST PRICING SUPPORT THE RECOMMENDATION THAT ILEC-SUPPLIED MONOPOLY INPUTS BE PRICED AT NEAR-TSLRIC LEVELS?**

A. When regulators set the prices charged by a multiproduct firm equal to TSLRIC plus a substantial allocation of common costs, they are practicing what is known as fully distributed (or fully allocated) cost pricing. In their recent monograph on local exchange competition, William Baumol and Gregory Sidak define this pricing approach as follows:

> The fully distributed cost of product X is defined as the outlay per

> unit of output X, including all expenses attributable to X alone, plus some share of any common costs incurred on behalf of X and one or more other outputs.[6]

Clearly, this is precisely the pricing recommendation contained in Dr. Emmerson's direct testimony.

The economic literature, however, is highly critical of fully distributed cost pricing. For example, Baumol and Sidak write that: "This traditional tool of price regulation is now generally discredited and is increasingly being abandoned in regulatory practice."[7] Similarly, Professor John Wenders writes:

> The topic of costing is filled with sloppy thinking and rhetoric. Costs can be discovered; costs can be identified; costs can be estimated; but costs cannot be allocated. They are not a pie to be divided up among customers. Never use the word allocated in the same sentence with costs. . . . So much regulatory discussion of costs is crippled by the idea of "allocating costs" that it is important to begin by purging one's vocabulary. Costs can be caused, and costs can be avoided, but they cannot be allocated.[8]

Numerous other authors have criticized severely the practice of allocating common costs among the regulated firm's services.[9]

The simple reason for this widespread criticism is that such cost allocations result in substantial departures from marginal cost pricing, which, in turn, lead to significant economic inefficiencies with attendant social welfare losses. Moreover, in the present context, a substantial allocation of common costs to the prices of interconnection

arrangements and unbundled elements has the additional detrimental impact of increasing the costs of new entrants into local exchange markets, thereby artificially slowing the entry process and prolonging the monopoly status of the ILEC. Therefore, the prices of these vital inputs should not be burdened with substantial allocations of common costs. Rather, they should be kept as close as possible to the incremental costs of supplying these inputs.

**Q. DO THE ILECS HAVE INCENTIVES TO PUSH THE PRICES OF INTERCONNECTION AND UNBUNDLED ELEMENTS ABOVE ECONOMICALLY EFFICIENT LEVELS?**

A. Yes. At least two incentives exist for ILECs to advocate input prices that exceed their respective TSLRICs by considerable margins. First, these inputs are supplied under monopoly or near monopoly conditions. In addition, the demands for them are likely to be relatively price inelastic. Consequently, the profit-maximizing monopoly mark-ups above marginal cost are likely to be large. Thus, the straightforward pursuit of monopoly profits encourages the ILECs to advocate substantial mark-ups above TSLRIC.

Second, as noted above, because these inputs will be required by firms seeking to enter local exchange markets, the higher these prices are set the longer the incumbent supplier will be able to sustain its monopoly. In fact, prices that exceed TSLRIC impose costs on new entrants that are not borne equally by incumbents. Therefore, such prices constitute entry barriers that will retard the growth of competition. For both of these reasons (more profits today and more profits tomorrow), ILECs have a clear incentive to allocate a large portion of their costs (common or any other) to the

prices of interconnection and unbundled elements.

**Q. DOES THE FCC'S RECENT ORDER PROVIDE ANY GUIDANCE CONCERNING THE MAGNITUDE OF THE COMMON COSTS THAT ARE TO BE ALLOCATED TO THE PRICES OF INTERCONNECTION AND UNBUNDLED NETWORK ELEMENTS?**

A. Yes. The Order provides considerable guidance on this issue. Specifically, the Order clearly indicates that: (1) these input prices are to be based upon a TSLRIC (or, in the FCC's terminology, TELRIC) pricing methodology, and (2) the deviation of these prices from a strict TSLRIC approach due to the allocation of common costs should be small.

Although the ILECs may attempt to read considerable latitude into the "reasonable allocation" language in the Order, the FCC explicitly excludes elevations in input prices above incremental cost that might emanate from a variety of potential sources. For example, regardless of the veracity of claims regarding inadequate past depreciation policies, the FCC has stated that inclusion of underdepreciated costs (common or otherwise) into the price of unbundled elements and interconnection "is not the proper remedy."[10] Also, whether "common" or not, the FCC has explicitly rejected the recovery of embedded costs in the pricing of these inputs.[11] The FCC also properly excludes recovery of retail-level "common" costs. Specifically, the FCC states that "[T]he relevant common costs do not include billing, marketing, and other costs attributable to the provision of retail service."[12] Inclusion of shared facilities and operations are also not to be considered "common costs" to be tacked onto the prices of vital inputs sold to the ILECs competitors.[13] Specifically, the FCC

states that "[C]ertain shared costs that have conventionally been treated as common costs (or overheads) shall be attributed directly to the individual elements to the greatest extent possible."[14] The FCC also removes the prospect for recovery of such costs on the basis of demand elasticity considerations.[15]

Recovery of so-called "opportunity costs" associated with the ILEC's operations (as defined by application of the Efficient Component Pricing Rule [ECPR]) are also explicitly proscribed by the FCC as "improper." Inclusion of such costs are found by the FCC to be different from those found in competitive markets and "would not lead to efficient retail pricing."[16] Any recovery of costs in excess of the stand-alone cost of providing an unbundled element is also (properly) prohibited. Importantly, in this regard, the FCC notes that there is likely to be only a "minimal difference" between the forward looking incremental cost attributable to a particular element that excludes common costs and the stand-alone costs that include all such costs in situations where there are few common costs.[17] The FCC also takes care to proscribe any mark-ups above incremental cost that entail multiple recovery of common costs. Indeed, the FCC states that such mark-ups would be "unreasonable and in violation of the statutory standard."[18] The FCC also precludes mark-up of rates to include the costs of supporting universal service. Specifically, the Commission states:

> [P]ermitting states to include such costs in rates arbitrated under sections 251 and 252 would violate the requirement [that universal service support be recovered in an equitable and nondiscriminatory manner] by requiring carriers to pay specified portions of such costs solely because they are purchasing services and elements under section 251.[19]

In sum, the FCC has specifically excluded a variety of factors that would otherwise be used by the ILECs to raise the price of unbundled network elements and interconnection above incremental cost including:

1. claims regarding inadequate depreciation of "common" costs;
2. recovery of any embedded "common" costs;
3. recovery of any retail-level "common" costs;
4. recovery of "shared facilities and operations";
5. demand elasticity considerations;
6. recovery of "opportunity cost" associated with common costs;
7. any recovery in excess of the stand-alone cost of assets;
8. recovery of "the same common costs multiple times"; and
9. recovery of the common costs used in the provision of universal service (which would include the so-called carrier-of-last-resort obligation).

**Q. DO ANY OTHER ASPECTS OF THIS ORDER SUGGEST THAT THE MAGNITUDE OF "COMMON COSTS" TO BE CONSIDERED IN THE PRICING DECISION SHOULD BE MINIMAL?**

A. Yes. At least three additional considerations suggest that the FCC contemplates only minimal departures from incremental cost in the pricing of network elements and interconnection. First, the FCC has clearly stated that its approach to pricing is a "long-run, incremental cost methodology" for the establishment of prices for interconnection and unbundled network elements.[20] Significant mark-ups to prices on the basis of common costs is not consistent with a pricing approach that is labeled "long run, incremental cost."

Second, the FCC has embraced the notion of incremental cost calculations for elements (i.e., TELRIC) rather than for services specifically because it reduces the presence of common costs.[21] There are notable advantages to focusing on the incremental cost of elements (TELRIC) as opposed to services (TSLRIC), not the least of which is that it leaves very little common costs to be accounted for.

Finally, the FCC has made it quite clear that any recovery of forward looking common costs much be "consistent with the pro-competitive goals of the 1996 Act."[22] But as I have noted and as the FCC has confirmed, it is incremental cost that provides the competitive market standard against which to judge whether prices are set "consistent with the pro-competitive goals of the 1996 Act."

In sum, given these various constraints that are properly noted in the FCC's Report and Order and the unambiguous pro-competitive tenor of the Telecommunications Act, I expect that arbitrated prices for unbundled elements and interconnection will reasonably approximate the economic benchmark that I established in my direct testimony. That is, any allocation of common costs to these input prices should be small.

## III. REBUTTAL OF MR. REID'S TESTIMONY

**Q. HAVE YOU READ THE DIRECT TESTIMONY FILED BY MR. WALTER REID IN THIS HEARING?**

A. Yes.

**Q. AS AN ECONOMIST, DO YOU HAVE ANY CRITICISMS OF THAT TESTIMONY?**

A. Yes. There are two aspects of that testimony that appear to conflict with the economic concept of avoided costs. First, Mr. Reid apparently excludes much of BellSouth's short-run fixed costs from his avoided cost calculations. That is, he seems to focus largely if not exclusively on short-run variable (or direct) costs in these calculations. Second, Mr. Reid takes the position that, if BellSouth continues to incur a given cost (e.g., billing) in the provision of some other service (e.g., intraLATA toll), then that cost is not avoided even though the company will no longer need to incur that cost to provide its local exchange service on a wholesale basis.

Both of these arguments are economically invalid. As a result, Mr. Reid has failed to include certain costs in his avoided cost calculations that, as an economic matter, should be included. Consequently, his avoided cost numbers are biased downward.

**Q. TURNING TO YOUR FIRST POINT, IS IT YOUR POSITION THAT A PORTION OF THE COMPANY'S FIXED OR INDIRECT COSTS SHOULD BE INCLUDED IN THE AVOIDABLE COST CALCULATION?**

A. Yes. Avoidable costs should include not only the short-run variable costs that will immediately be eliminated by providing wholesale instead of retail services, but also those costs that, while fixed in the short run, will nonetheless be avoided in the long run as the ILEC adjusts its other inputs to this altered role. In the short run, costs may be categorized as either "fixed" or "variable" (sometimes referred to as "indirect" and "direct," respectively). In the long run, however, all costs are variable.

At some point, even the most durable equipment must be replaced and personnel decisions at all levels of the corporate structure must respond to the level and type of activities in which the firm is engaged. As a result, the ILEC should not be allowed to exclude certain costs from its avoidable cost calculations simply because it has chosen to focus upon some arbitrarily short time horizon.

Economically, it is necessary to calculate avoidable costs on a long-run basis in order to provide potential entrants efficient signals as to whether to enter the retail stage through resale of wholesale services or through purchase of unbundled network elements. By definition, entry decisions are long run in nature. Any reduction in the wholesale discount caused by adopting a short-run focus will bias the entry decision against the wholesale route. Such a regulatory-induced bias distorts new entrants' investment decisions and slows the entry process.

**Q. DOES THE FCC ORDER REQUIRE THE INCLUSION OF A PORTION OF FIXED OR INDIRECT COSTS IN THE AVOIDED COST CALCULATION?**

A. Yes. Paragraph 912 of that Order states that:

> We find that, under this "reasonably avoidable" standard discussed above, an avoided cost study must include indirect, or shared, costs as well as direct costs. . . .[I]ndirect or shared costs, such as general overheads, support all of the LEC's functions, including marketing, sales, billing and collection, and other avoided retail functions. Therefore, a portion of indirect costs must be considered "attributable to costs that will be avoided" pursuant to section 252(d)(3).

Thus, the FCC has recognized the necessity of including avoidable fixed costs in the avoided cost calculation.

**Q. TURNING TO YOUR SECOND POINT, ARE YOU SUGGESTING THAT CERTAIN COSTS BE INCLUDED IN THE AVOIDED COST CALCULATION THAT ARE NOT ACTUALLY SHED BY THE ILEC WHEN IT BECOMES A PROVIDER OF WHOLESALE SERVICES TO ITS RETAIL-LEVEL COMPETITORS?**

A. Yes. Any costs associated with the provision of local exchange services at the retail stage that would no longer be incurred if the ILEC were to exit that market altogether, and provide only wholesale services purchased by other firms which then perform all retail-stage activities, should be incorporated in the avoided cost calculation. Under this approach, new entrants will pay wholesale rates that accurately reflect the costs that their entry and purchase decisions cause to be incurred.

In contrast, under Mr. Reid's proposed approach, described on page 10 of his testimony, the ILEC could effectively force new entrants to pay a portion of the costs of the firm's other (non-local exchange) activities as long as the ILEC can manage to maintain some commercial relationship with its customers. In his example, the cost of billing the customer would not be subtracted from the retail rate to arrive at a wholesale rate, because the ILEC hypothetically continues to provide intraLATA toll services to the customer. Under this approach, the new entrant attempting to compete with the ILEC at the retail stage in the local exchange market will pay a wholesale rate to the ILEC that reimburses the ILEC the cost of billing the customer for toll calls.

This is patently absurd. Not only does it artificially dampen the incentive to enter the retail stage of the local exchange market as a reseller of ILEC-supplied wholesale services, it also dampens competition in the intraLATA toll market by effectively cross-subsidizing the ILEC's sales in that market. As a result, competition is harmed in both markets.

**Q. DO THE FCC RULES ADDRESS THIS ISSUE?**

A. Yes. The FCC Order clearly specifies that avoided costs are to be calculated on the basis of retail-stage activities that would no longer be required if the ILEC were to specialize in the provision of wholesale services only. That is, they are not to be made contingent upon the costs that the ILEC actually sheds when it loses a customer to a new entrant.

Specifically, paragraph 911 of the Order states:

> We find that "the portion [of the retail rate] . . . attributable to costs that will be avoided" includes all of the costs that the LEC incurs in maintaining a retail, as opposed to a wholesale, business. In other words, the avoided costs are those that an incumbent LEC would no longer incur if it were to cease retail operations and instead provide all of its services through resellers. Thus, we reject the arguments of incumbent LECs and others who maintain that the LEC must actually experience a reduction in its operation expenses for a cost to be considered "avoided" for purposes of section 252(d)(3).

Thus, Mr. Reid's proposed approach is both unsound economically and ruled out by the FCC's avoided cost criteria. As a result, his avoided cost calculations are unreliable and should not be used as a basis for the Florida Commission's arbitration decision on this issue.

**Q. DOES THAT CONCLUDE YOUR TESTIMONY?**

A. Yes.

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[1] Federal Communications Commission, First Report and Order, CC Docket Nos. 96-98 and 95-185, August 8, 1996, ¶ 672.

[2] First Report and Order, ¶ 682.

[3] This is a standard result that appears in all or virtually all basic principles of economics textbooks. See, for example, Robert B. Ekelund, Jr., and Robert D. Tollison, Economics, 4th edition, Harper Collins College Publishers, New York, NY (1994), Chapter 9.

[4] See Glenn M. MacDonald and Alan Slivinsky, "The Simple Analytics of Competitive Equilibrium with Multiproduct Firms," American Economic Review, Vol. 77 (December 1987), pp. 941-953.

[5] See, e.g., Ronald H. Coase, "The Marginal Cost Controversy," Economica, Vol.. 13 (1946), pp. 169-182; Robert D. Willing, "Pareto-Superior Nonlinear Outlay Schedules," Bell Journal of Economics, Vol. 9 (Spring 1978), pp. 56-69; Alfred E. Kahn, "The Road to More Intelligent Telephone Pricing," Yale Journal on Regulation, Vol. I (1984), pp. 139-57.

[6] William J. Baumol and J. Gregory Sidak, Toward Competition in Local Telephony, The MIT Press, Cambridge, MA, 1994, p. 56.

[7] Id., p. 56.

[8] John T. Wenders, The Economics of Telecommunications: Theory and Evidence, Ballinger Publishing Company, Cambridge, MA (1987).

[9] See William J. Baumol, Michael F. Kodhn, and Robert D. Willig, "How Arbitrary is 'Arbitrary'? – or, Toward the Deserved Demise of Full Cost Allocation," Public Utilities Fortnightly, Vol. 120, No. 5 (Sept. 3, 1987), p. 16; Ronald Braeutigam, "An Analysis of Fully Distributed Cost Pricing in Regulated Industries," Bell Journal of Economics, Vol. 11 (Spring 1980), pp. 182-196; George Sweeney, "Welfare Implications of Fully Distributed Cost Pricing Applied to Partially Regulated Firms," Bell Journal of Economics, Vol. 13 (1982), pp. 525-533; David L. Kaserman and John W. Mayo, Government and Business: The Economics of Antitrust and Regulation, Dryden Press, Ft. Worth, TX (1995), pp. 509-511.

[10] First Report and Order, ¶ 706.

[11] First Report and Order, ¶¶ 704-707.

[12] First Report and Order, ¶ 694.

[13] These expenses are to be directly included as part of the incremental cost measurement. First Report and Order, ¶ 682.

[14] First Report and Order, ¶ 682.

[15] First Report and Order, ¶ 696. "[W]e conclude that an allocation methodology that relies exclusively on allocating common costs in inverse proportion to the sensitivity of demand for various network elements and services may not be used."

[16] First Report and Order, ¶¶ 708-712. "We conclude that ECPR is an improper method for setting prices of interconnection and unbundled network elements because existing retail prices that would be used to compute incremental opportunity costs under ECPR are not cost-based." (¶ 709)

[17] First Report and Order, ¶ 698.

[18] First Report and Order, ¶ 698.

[19] First Report and Order, ¶¶ 712-715.

[20] First Report and Order, ¶ 620.

[21] First Report and Order. ¶¶ 678 and 694.

[22] First Report and Order, ¶ 696.