REBUTTAL TESTIMONY OF DR. RICHARD D. EMMERSON

ON BEHALF OF BELLSOUTH TELECOMMUNICATIONS, INC.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 961150-TP

NOVEMBER 1, 1996

INTRODUCTION

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS.

A. My name is Richard D. Emmerson. I am the President and CEO of INDETEC International, Inc. I am testifying on behalf of BellSouth Telecommunications ("BST" or the "Company"). My business address is 341 La Amatista, Del Mar, CA 92014.

Q. WHAT EXPERIENCE AND QUALIFICATIONS DO YOU HAVE PERTAINING TO YOUR TESTIMONY?

A. My academic qualifications include a Ph.D. in economics from the University of California, Santa Barbara in 1971. From 1971 through 1979, I was a full-time member of the Economics Department at the University of California, San Diego (UCSD). Since 1979, I have taught continuously (part time) at UCSD; I was the Director of the Executive Program for Scientists and Engineers (EPSE) at UCSD during 1990-1991, and I continue to teach courses on costing and pricing for EPSE at the present time. I have written articles in professional economic jour-

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nals, and I have performed research projects for government agencies and private industry. I have also served as an expert witness in antitrust and business litigation cases. I have testified before many Public Service Commissions on various economic and policy subjects such as access charges, bypass, rate structure, competition, terminal equipment pricing, network services pricing, and cost analyses in the jurisdictions of California, Colorado, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky, Maine, Michigan, Minnesota, Montana, Nevada, Oklahoma, Pennsylvania, Virginia, Washington, Washington D.C., and Wisconsin, as well as in Canada. Over the course of the past 12 years, my provision of expert witness testimony in over 40 telecommunications regulatory hearings has aided in establishing appropriate cost standards in several jurisdictions within the industry. I have also worked for regulators and telephone companies in nearly a dozen foreign countries during the past three years.

My work experience includes past positions as Senior Vice President of Criterion Incorporated, President of the Institute for Policy Analysis, and President of Economic Research Associates. These companies performed economic analysis for competitive firms, regulated firms, government agencies, regulatory commissions, and trade associations. INDETEC International, Inc. provides consulting and training services to international telephone companies, Lucent Technologies, the United States Telephone Association (USTA), Bellcore, Commission staff members, partners and managers of large accounting and consulting firms, and interexchange companies (these services were formerly offered through INDETEC Corporation and Emmerson Enterprises, Inc.). During the past 20 years, I have taught a wide variety of courses ranging from basic eco-

nomics for telecommunications to highly specialized courses in incremental cost study methodology. State regulatory commission staff members from numerous states periodically attend my classes in order to improve their understanding of current economics for telecommunications.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

Sprint Communications Company L.P. ("Sprint") has petitioned the Florida Public Service Commission ("FPSC" or "Commission") to arbitrate certain terms and conditions in its negotiation with BST regarding interconnection, unbundled network elements ("UNEs"), and resale of existing services. Sprint has proposed that this Commission price UNEs using the FCC's Total Element Long Run Incremental Cost (TELRIC) pricing methodology or at the FCC's proxies. However, formula-based pricing is not economically valid and the Commission should consider the pricing of these services in the context of existing regulatory policy in the State of Florida and in the context of BST's satisfaction of past obligations. I discuss the basic economic principles which should underlie the Commission's consideration of these issues and the important economic factors that exist in the current telecommunications market. I also respond to certain issues raised by Sprint witness Mr. Stahly.

Q. WOULD YOU PLEASE SUMMARIZE YOUR TESTIMONY?

A. Yes. I note that the Telecommunications Act did not deregulate LECs; rather the Act created a new set of obligations and duties. These new obligations were not

voluntarily accepted by BST and this, as well as BST's record of satisfying past obligations should be considered in this proceeding. I discuss why a LEC should not be prohibited from pricing its services to obtain a contribution to recover its shared and common costs. Multiservice firms in general and LECs in particular have significant shared, joint and common costs that must be recovered in the prices of all of the services which are offered.

I explain that competition tends to drive prices toward costs *including common costs*. Further, in competitive industries, firms on average recover their historical costs and historical investments. If firms did not expect to recover, on average, their investments, they would not make them. Therefore, the Commission should consider historical costs, even those costs which might be considered "stranded costs." By precluding recovery of historical costs and stranded investment the Commission would send the wrong market investment signal.

I describe why intermediate services (services which are not provided to end users such as unbundled network elements) should not be exempt from assisting in the recovery of common costs, including historical costs, of the LEC. To preclude such cost recovery from intermediate services is likely to be unsustainable in an open market environment. Further, relatively low prices for intermediate services retards the incentive for facilities-based competition.

I briefly discuss the language in the FCC Interconnection Order regarding costs, including TELRIC. By their nature, TELRIC costs are likely to be greater than the incremental costs of services.

I note that Mr. Stahly's exhibit by Southwestern Bell Telephone (SWBT) showing some measure of "common" costs was obviously not performed to satisfy the definition of common cost established by the FCC Interconnection Order. I attach a more recent SWBT exhibit specifically designed to satisfy the FCC Interconnection Order and it shows a common cost percentage to be applied to TELRIC costs of 16.04%.[1] Other common cost calculations show RBOCs at 22.9%, all reporting LECs at 21.64% and AT&T at 19.64%.

I note that pricing services at any measure of incremental cost does not produce a profit. Rather profit is what is left over after *all costs* have been paid; it is the margin by which total revenues exceed *total cost*.

Finally, I describe why the Commission should not force BST to accept a "bill and keep" arrangement for interconnection compensation.

THE TELECOMMUNICATIONS ACT DID NOT DEREGULATE LOCAL EXCHANGE COMPANIES

Q. **DID THE TELECOMMUNICATIONS ACT DEREGULATE THE LOCAL EXCHANGE MARKET?**

[1] The calculations may be conservatively small however.

A. While I am not an attorney, and I am not offering a legal opinion, the Act did not deregulate the local exchange market. The telecommunications act of 1996 created new obligations for Local Exchange Companies (LECs) and it makes entry by Alternative Local Exchange Carrier (ALECs) far easier. However, the act does not provide LECs with any additional freedoms within the local exchange segment of the telecommunications market. LECs do not have greater flexibility in pricing end-user services or network elements. LECs did not receive additional earnings freedom because of the Act.

The Act did create obligations or duties for the LECs with respect to: resale of retail services; number portability; dialing parity; access to rights-of-way; reciprocal compensation; negotiation in good faith; interconnection; unbundled access to network elements; collocation; and notice of changes.[2] The act did create the opportunity for the LECs (having once satisfied the competitive check list) to enter the long distance market.

However, the Act did nothing to reduce the regulation of LECs in their local exchange activities. Rather, the act created additional LEC obligations and duties and an additional layer of regulation.

Q. DOES THE TELECOMMUNICATIONS ACT OF THE FCC INTERCONNECTION ORDER ESTABLISH A FUTURE PATH FOR DEREGULATING LECS?

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[2] Sec. 251.

A. No, the Act and the FCC Interconnection Order provide no guidance or future path for deregulating LECs.

Q. WHY IS IT IMPORTANT TO RECOGNIZE THIS CHARACTERISTIC OF THE ACT?

A. This is important when the Commission is considering the pricing of the services in question in this proceeding, and the implications of the pricing and provision of these services. The LECs new obligations should be considered in the framework of the traditional guidelines in the State of Florida, existing regulatory policy and BST's satisfaction of past obligations.

The new obligations created by the Act are unlike those which a LEC might have voluntarily accepted under a new regulatory contract negotiated with the Commission. In such an instance, the LEC may voluntarily accept new obligations, such as a commitment to new infrastructure investments for schools and hospitals, or to reduce prices for certain services in exchange for pricing freedom or earnings freedom. Such a voluntary commitment may be undertaken even though the rates for some services or obligations are insufficient to recover the actual costs of providing services; this is the nature of voluntary commitments.

In contrast, the new obligations created under the Act are not those which BST has voluntarily negotiated in exchange for pricing freedom or earnings freedom in the State of Florida. These new obligations, and the pricing of the services

which BST is now required to offer, must be considered in the context of existing regulatory policy in the state and BST's satisfaction of past obligations.

Q. WHAT DO YOU MEAN WHEN YOU MENTION EXISTING REGULATORY POLICY IN THE STATE OF FLORIDA AND BST'S SATISFACTION OF PAST OBLIGATIONS?

A. I believe that this commission, like many others, has worked to: 1) keep basic local exchange rates (particularly for residential customers) relatively low; 2) keep many rates constant or equal across the state or across broad geographic areas; 3) have BST provide service to all customers in a timely fashion with relatively few held orders; 4) keep telecommunications prices generally as low as possible. It appears that these obligations have been largely met in the state, and they have been met in part by BST satisfying existing and past obligations. These obligations were met in part by placing facilities across a broad geographic area, and placing them well in advance of the actual demand for service. I expect that BST has placed facilities in anticipation of demand for telecommunications services that sometimes takes years to materialize.

In addition, LEC prices in the industry have been held down in part through the use of depreciation rates which did not reflect the true loss in economic value of assets over time. In essence, the past calculations of historical costs (e.g., for determination of a revenue requirement) were, in general, artificially low. This had the effect of holding past prices down since past costs were underrepresented.

This created greater risks for the LECs by establishing booked costs generally in excess of the market value of the assets and by delaying the period over which the booked costs were to be recovered. The LECs were allowed to keep the unrecovered portion of their booked assets on the books for a longer period of time with an expectation of a reasonable opportunity to earn a return on the unrecovered portion into the future.

These unrecovered investments are relevant to this case. This Commission must now determine how unbundling, interconnection and resale affect BST's opportunity to recover these investments.

A LOCAL EXCHANGE COMPANY (LEC) SHOULD NOT BE PROHIBITED FROM PRICING ITS SERVICES TO OBTAIN CONTRIBUTION TO RECOVER ITS SHARED AND COMMON COSTS

Q. SPRINT RECOMMENDS DEVELOPING PRICES FOR UNES USING TOTAL ELEMENT LONG RUN INCREMENTAL COST (TELRIC).[3] PLEASE DESCRIBE THE ECONOMIC SIGNIFICANCE OF THE ACRONYM TELRIC.

A. The acronym TELRIC is a term coined by the FCC in its recent order dealing with the implementation of the unbundling and interconnection aspects of the

[3] Direct testimony of Mr. David E. Stahly, at page 5.

Telecommunications Act of 1996 (August 1, 1996 Order in the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, released August 8, 1996, CC Docket No. 96-98, hereinafter "FCC Interconnection Order"). The FCC concluded that the price for an unbundled network element should be based on the LEC's total service long run incremental cost (TSLRIC) of that particular network element (which the FCC calls "Total Element Long-Run Incremental Cost," or TELRIC), plus a reasonable share of forward-looking joint and common costs.[4] However, even within the FCC Interconnection Order itself there are alternative applications of this term.

Q. HOW IS THE TERM TELRIC USED DIFFERENTLY IN THE FCC ORDER?

A. The term TELRIC, in many places in the FCC Interconnection Order, is used to denote a methodology for developing costs of a set of functions, deemed to be those that proposed competitors either want or need in order to compete with the incumbent company. However, the FCC Interconnection Order also refers to the term TELRIC when referencing a mechanism for setting a price for these proposed functions. The use of the same terminology to refer to two very different disciplines creates a multitude of opportunities for confusion in the application of these principles going forward. To avoid confusion it is best to use the full phrase TELRIC pricing or TELRIC pricing methodology to distinguish pricing from the estimation of TELRIC costs.[5]

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[4] FCC Interconnection Order, paragraphs 29 and 672.

[5] The phrase TELRIC costs, is of course redundant but it may be useful to help distinguish costs and pricing methodology.

Q. SHOULD BST PRICE ITS UNBUNDLED NETWORK ELEMENTS (UNES) AND INTERCONNECTION SERVICES EQUAL TO INCREMENTAL COST?

A. No. A multiservice network-based Local Exchange Company (LEC) has shared, joint and common costs which must be recovered by pricing services above any measure of incremental cost.

Q. IN THE CONTEXT OF TELRIC PRICING METHODOLOGY YOU MENTIONED A REASONABLE SHARE OF FORWARD-LOOKING JOINT AND COMMON COSTS. HOW DOES THE FCC DEFINE THE TERM "COMMON COSTS"?

A. The FCC defines the term "common costs" as "costs that are incurred in connection with the production of multiple products or services, and remain unchanged as the relative proportion of those products or services varies."[6] The FCC Interconnection Order, at times, uses the terms joint and common costs. Any multiservice firm will have joint, common, shared, indirect and residual costs which are not included in a traditional incremental cost calculation. For ease of discussion I will employ the single term "common cost," in the much same way that

[6] FCC Interconnection Order, paragraph 677.

the term is used in the FCC Interconnection Order, as a catch-all for the costs which are not direct incremental costs.[7]

Q. IS RECOVERY OF SUCH COMMON COSTS APPROPRIATE?

A. Yes. A multiservice network-based Local Exchange Company (LEC) has significant costs which are not incremental to any one service. These costs must be recovered by pricing services above any measure of incremental cost. Mr. Stahly recognizes this economic concept when he states: "Including a portion of these costs is appropriate because revenues from products must generally make a contribution to covering common costs if a company is to produce the product. This is true both from a business perspective and an economic perspective."[8]

Q. ARE THE COMMON COSTS OF A MULTISERVICE NETWORK-BASED LEC LIKE BST SIGNIFICANT?

A. Yes. Common costs include some of the costs of general engineering of the network, right-to-use fees that apply to multiple functionalities, portions of many physical facilities, the cost of capital and depreciation expenses on faciiities which are not directly attributable to individual services, operating expenses and even taxes. For example, Barb Smith of Southwestern Bell Telephone, in Kansas Docket No. 190,492-U (page 7) testified:

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[7] FCC Interconnection Order, paragraph 676 ("For purposes of our discussion, we refer to joint and common costs as simply common costs unless the distinction is relevant in a particular context.").

[8] Direct testimony of Mr. David E. Stahly, at page 15.

SWBT has conducted a preliminary analysis in Texas that shows that the difference between the sum of the LRIC studies for all services and the total costs of the company in Texas will be at a minimum in the range of 40% to 50%. I would expect Kansas to have shared and common costs in the same range. Pricing services equal to the LRIC or TSLRIC will not allow SWBT to recover significant portions of its costs.

Based on my experience, there is no reason to believe that the results in Florida would be substantially different.

Q. PLEASE EXPLAIN WHY SOME COSTS DO NOT APPEAR TO BE INCREMENTAL TO SERVICES.

A. First, many activities performed by LECs cannot be found to vary with the LECs' scope of services. Examples are activities such as: creating, updating and maintaining large computer systems for customer and network administration; executive, legal and administrative functions, and work pertaining to the corporate entity as a whole. Indeed, extended unresolved disputes about how to fully distribute costs can be explained by a lack of a clear cost causative relationship. Thus engineering and activity based studies do not assign all costs to services.

Second, the very nature of many costs is clearly shared. Resources (such as certain right-to-use fees, computer programming, and general organizational activi-

ties) are expended once without the need to expand the scale of activities to accommodate greater volumes of business including adding products or services.

Q. DO YOU BELIEVE THAT A LEC HAS CHARACTERISTICS WHICH CAUSE IT TO TEND TO HAVE A HIGHER PROPORTION OF COMMON COSTS THAN OTHER BUSINESS ENTERPRISES?

A. Yes, there are several factors which I believe will cause a LEC, like BST, to tend to have a higher proportion of common costs than other business enterprises. These factors include: 1) a large number of services offered; 2) network-based service provision; 3) a franchise obligation to provide ubiquitous service over broad geographic areas; 4) large scale and indivisible investment characteristics; 5) predominance of services rather than products; and 6) "leasing" of virtually no unbundled components from other suppliers.

Q. WHAT DO YOU MEAN WHEN YOU SAY LECS ARE "LEASING" VIRTUALLY NO UNBUNDLED COMPONENTS?

A. I have used the term "lease" in a generic sense to mean using the facilities of others (at a price) rather than buying or building one's own facilities. LECs tend to own rather than lease facilities. In contrast, a high proportion of Interexchange Carrier (IXC) and ALEC costs may be comprised of expenditures to lease facilities from LECs. At one point in time, IXCs claimed that approximately 60% of their toll revenues were paid to LECs for access services. Therefore, the leasing of LEC facilities (i.e., access payments) became part of the di-

rect cost or incremental cost of Sprint's toll service. A ALEC too may lease a significant proportion of its facilities from LECs and, therefore, will necessarily have a higher proportion of incremental costs and a smaller proportion of joint and common costs, vis-à-vis the LECs.

Q. IF A NETWORK-BASED COMPANY LIKE BST IS REQUIRED TO SET RATES FOR EACH SERVICE JUST SUFFICIENT TO COVER LRIC, TSLRIC OR TELRIC, WILL THAT COMPANY RECOVER ALL OF ITS COSTS?

A. No, it will not. Service prices which only generate total revenue equal to the sum of all service incremental costs will not cover total cost. As I have discussed, there are common costs incurred by a company, especially a multiservice network-based company like BST, which are *not* incremental to any one service but which are nevertheless valid costs of engaging in its business activities. In total, service revenues must exceed service incremental costs by a margin sufficient to recover all costs of the firm, including the common costs of the firm. Even if it were determined that some costs presently categorized as common were incremental after all, prices would need to cover those higher costs and contribute toward the remaining (nonincremental) costs. To simply assure that each service does not receive a subsidy, by establishing all service prices at, or slightly above any measure of incremental costs means that a provider will not recover all of its costs.

Moreover, BST cannot be said to have priced its services to attain a reasonable profit until its prices are set sufficiently above any measure of incremental costs to recover its common costs. In short, if BST is required to set service prices at any measure of incremental costs, with no provision for common costs, which must necessarily be incurred to provide business services, then it cannot even cover its total costs, much less earn a profit on those services.

Q. CAN YOU ILLUSTRATE THIS POINT WITH A NUMERICAL EXAMPLE?

A. Yes. Consider products A & B each with an incremental cost per unit of $0.25 and with demand of 100 for each service. The incremental cost for the sum of the units demanded is $25.00 for A and $25.00 for B. However, to produce either A or B the firm must also spend $50.00 per period on a right to uses fee; say a computer operating system. In this simple example, the $50.00 is a common cost of these two products. The firm has found a source of economic efficiency: it can produce both A and B spending $50.00 once rather than twice (once for each product). Obviously, if the prices per unit of both services A and B are forced to equal their incremental costs of $0.25, the firm will face a loss of $50.00 per period. Similarly, if the firm is forced to price one of its services at incremental cost, the firm will face a loss unless it can double the contribution margin on its remaining service. The greater the efficiencies of sharing facilities and costs, the larger the common costs of the firm and the greater the need to price services in excess of incremental. In other words, such increased efficiencies will increase common costs but with a more than offsetting reduction in in-

cremental costs. However, these larger common costs must be recovered for the firm to remain in business.

Q. ARE SHARED FACILITIES AND COMMON COSTS BENEFICIAL?

A. Yes, the increased efficiencies from sharing facilities and costs is desirable for the firm and desirable for society as well. However, these costs must be recovered from the services which the firm provides; forcing service prices equal to any measure of incremental costs does not allow for the recovery of the common costs which are beneficial to society. It is inappropriate to penalize a company for improving its efficiency by not allowing recovery of common costs. To illustrate this, recall products A and B described earlier where the incremental costs per unit for each is $0.25, the common cost is $50.00, and 100 units of each service are demanded. Consider what occurs if a new machine becomes available which costs $75.00 per period but which reduces the incremental cost of both services from $0.25 to $0.10. With demand for A and B at 100 units the new machine offers the opportunity to reduce total costs from $100.00 to $95.00 (i.e., $75.00 + $10.00 + $10.00). Society is clearly better off with the use of the new machine; however, if the company is artificially constrained to price any of its services at the new incremental cost of $0.10, it is difficult for the company to make the economic decision which is best for society.

Q. IF PRICING AT TELRIC LEAVES SHARED AND COMMON COSTS UNRECOVERED, SPECIFICALLY HOW SHOULD PRICES BE SET TO GEN-

ERATE THE ADDITIONAL REVENUE REQUIRED TO COVER THESE COSTS?

A. Prices should be set based on market conditions in such a way that the contributions from all services (revenues in excess of incremental costs) are sufficient to cover the shared and common costs of the firm. It is the value of the service to the customer and the market conditions for that service, not cost-based formulas, which will determine how shared and common costs can be recovered in the marketplace. Every network element should provide a contribution toward shared and common costs, based on market conditions. The market place is where prices should be determined. Dr. Alfred Kahn is very emphatic about this point as explained in the following editorial: "The FCC should simply get out of the way and leave the decisions to investors and consumers. The commission should call off its cost-allocation rule making, leave the prices of regulated services where they are and let the market work."[9]

COMPETITION TENDS TO DRIVE PRICES TOWARD COSTS (INCLUDING COMMON COSTS)

Q. DOESN'T COMPETITION DRIVE PRICES TOWARD COSTS?

A. Yes, it does. However, competition does not necessarily drive prices to incremental costs.[10] Competition tends to drive prices to a point where all valid busi-

[9] Kahn, Alfred E., "Ask Not the Bells for Tolls," *Wall Street Journal*, August 6, 1996, page A14.

[10] If a firm only provides a single product, all of its costs are generally included in a calculation of TSLRIC. Because the majority of the economics literature implicitly or explicitly deals with single

ness costs are just recovered, and common costs are valid costs of business activity. When competition drives prices toward costs, these common costs are a component of the costs a provider must recover, even in the most competitive of markets.

Q. SHOULD PRICES FOR INTERMEDIATE SERVICES (I.E., SERVICES NOT SOLD TO END USERS SUCH AS UNBUNDLED LOOPS) BE ALLOWED TO MAKE A CONTRIBUTION TO HELP RECOVER THE COMMON COSTS OF A FIRM?

A. Yes, in a competitive environment, every activity must be allowed to make a contribution to help recover the common costs of the firm. Many firms strictly offer business-to-business services, i.e., they only offer intermediate products or services to other firms and do not sell to end-users.[11] Many of these firms may have substantial common costs which must be recovered from the prices of the intermediate products or services which they sell to other firms. In general, firms in real markets selling intermediate services have common costs which must be recovered through the prices of the intermediate products or services

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product production, a casual reading of parts of the economics literature would lead one to believe that competition drives prices toward TSLRIC; this is true only for a single product firm.

[11] Catalogs and directories exist for "business-to-business" products and services; many of these products are used as components or inputs to produce products for final consumers. Some of the firms which are largely or completely intermediate-products firms are obvious and well known such as Intel, Boeing, McDonnell-Douglas, U.S. Steel, Alcoa Aluminum, or Peabody Coal. However, many other firms which one might consider as final goods producers, such as Beatrice Foods, Detroit Diesel, Kellogg, Phillip Morris, Proctor & Gamble, or Frito Lay, provide relatively few, if any, products to end users. These firms rely on other firms to actually provide products to end users. Certainly, any firm which only provides intermediate services must recover all of its shared costs from those intermediate services.

which they sell to other firms. It is obvious in these instances that providers must obtain a sufficient contribution from each intermediate service or they will be unable to continue in business.

ON AVERAGE, FIRMS IN COMPETITIVE INDUSTRIES RECOVER THEIR HISTORICAL INVESTMENTS

Q. DO FIRMS IN COMPETITIVE INDUSTRIES PRICE SERVICES EQUAL TO THEIR EMBEDDED COSTS?

A. No, not necessarily. Firms in competitive industries may, at any point in time price services above, below, or equal to their embedded costs or historical costs. Such firms will generally not price services below forward-looking incremental costs, but the degree to which prices exceed incremental costs will be based on market considerations at the time.

Q. DOES THIS MEAN THAT SUCH FIRMS GENERALLY DO NOT RECOVER THEIR HISTORICAL INVESTMENTS?

A. No. Obviously, firms on average must recover their historical costs and earn a normal accounting profit (a zero economic profit). No firm would willingly enter an industry or engage in an activity if it expected that it would not recover its investment. Some firms do sustain losses and they generally go out of business. Other firms earn above-average accounting profits (positive economic profits). In fact, it is the full costs of the *least* efficient firm in the market which actually

survives which most closely corresponds to the price in the market. This marginal firm will just barely earn a zero economic profit and stay in business in the long run.

"Profit" is by nature a residual concept. It is what is left over after all costs have been paid; it is the margin by which total revenues exceed total costs. On average, firms must expect to earn at least an average accounting profit or firms will not enter and produce; i.e., on average firms must recover their historical costs.

Logically, to take regulatory action which would preclude a firm from recovering its historical costs would seem to require a significant probability that under different circumstances the firm would have been allowed to earn a profit much greater than average. In particular, it would seem that one must carefully consider a regulatory policy which precludes recovery of historical costs, when absent regulation, the firm would have a reasonable opportunity for recovery of such costs.

THE COMMISSION SHOULD CONSIDER HISTORICAL COSTS, EVEN "STRANDED COSTS"

IN REGULATED INDUSTRIES ONE SOMETIMES HEARS THE TERM "STRANDED COST." PLEASE EXPLAIN HOW ONE MIGHT INTERPRET THE TERM "STRANDED COSTS".

Stranded costs can be considered as those costs which are currently recovered from existing pricing regimes, but whose recovery may be precluded from the ensuing competition in the local exchange market. The costs of stranded investments are a result of the franchise monopoly agreement under which BST operated for most of its history. Under this agreement, BST was assured recovery of the costs of prudently incurred investments through rates charged to customers. In order to keep these rates low, depreciation lives were artificially extended beyond the economic lives of the investments. Furthermore, regulators ensured that the cost of money experienced by BST did not exceed near riskless levels. Hence, the return promised to investors was not allowed to be large enough to compensate for the risk of long depreciation lives. These factors served to maintain low telephone rates and to accomplish public universal service objectives.

However, the introduction of competition into the local exchange market will require that depreciation lives be adjusted to properly reflect economic lives going forward. Also, the future cost of capital will increase. These represent very real costs which BST will incur with the onset of competition. In addition, there is a need to compensate BST for its present unrecovered costs which are not a part of forward-looking costs.

Q. SHOULD THE COMMISSION ALLOW BST TO RECOVER STRANDED COSTS THAT RESULT FROM LOCAL SERVICE COMPETITION?

A. Yes. For the purpose of this answer, let's assume that BST incurred the costs in question prudently in accordance with the discharge of its duties and responsibilities under the regulatory compact in place at the time these costs were incurred. This assumes that the Commission has judiciously monitored the capital outlays of BST in accordance with the "used and useful" criterion.

The first point to be made with respect to this issue is that it transcends the question of what may be considered fair or equitable to BST. Indeed, how the Commission addresses this issue will have profound efficiency implications that will be felt far into the future. Should the Commission simply disavow the existence of these stranded costs, it will have indicted its own record of performance in carefully monitoring the capital outlays of BST, and breached its commitment to BST in failing to allow for recovery of all "prudently incurred" costs.

It is this latter possibility that is a particular cause for concern, especially in light of the credibility of this Commission's commitments to alternative regulation plans (*i.e.*, price caps). BST's performance under incentive regulation is inextricably tied to the firm's belief in the credibility of the Commission's commitment. BST has no incentive to seek out opportunities to reduce operating costs if it believes the Commission will merely usurp any realized cost savings and pass them on to consumers in the form of lower prices. BST will also have limited incentives to bear risk associated with investment in network infrastructure if it believes the Commission will expropriate the returns from this investment. Hence, when BST perceives that the Commission's commitment is non-credible

(the Commission cannot be relied upon to deliver what was promised), incentive regulation will differ from rate-of-return regulation in name only.

Q. ARE THERE OTHER PROBLEMS OF ECONOMIC INEFFICIENCY WHICH ARISE FROM FAILING TO ALLOW FOR THE RECOVERY OF STRANDED COSTS?

A. Yes, there are. Failure to allow recovery of stranded costs will increase the risk of investing in the firm for two reasons. First, as mentioned above, the credibility of the Commission will be questioned and cause investors to be weary of future commitments made by the Commission. Second, the financial viability of BST will be hindered thereby causing investors to demand a higher return on their investment. This leads to either an unnecessary increase in the cost of capital or a shortage of investment funds available to the entities it regulates.

It is important to note that in the end it is the consumer who will absorb the resulting economic inefficiencies. Such inefficiencies will be manifested in higher prices, poor quality of service, and lack of innovation.

Q. ARE THE COSTS UNDER CONSIDERATION HERE NECESSARILY STRANDED IN A STRICT MARKET SENSE OR A STRICT ECONOMIC SENSE?

A. No, not necessarily. Costs which are truly stranded in a market or economic sense could not be recovered except for some form of regulatory intervention.

Many of the costs which BST has incurred in the past to satisfy its past obligations in State of Florida may not be truly stranded in a market or economic sense. There may be sufficient market opportunities for the BST to recover these costs. It is more likely that regulation will be what precludes BST from recovering these costs. In particular, the new duties and obligations imposed on BST in the Federal Telecommunications Act, especially as detailed in the FCC Interconnection Order, are likely to be the cause or the constraints which would preclude BST from recovering its "stranded costs" or its costs of satisfying past state obligations.

Q. HOW SHOULD THE COSTS OF PAST OBLIGATIONS OR STRANDED INVESTMENTS BE RECOVERED?

A. First, it should be recognized that such costs are essentially a form of common cost and should be treated as such.

The cost of recoupment of stranded costs can be considered part of the common costs to which the price of inputs supplied by the utility to other firms can appropriately contribute or even cover completely.[12]

An economically appropriate means of recovering the costs of stranded investments is by way of a markup on the unbundled network elements which are sold to competitors. In doing so, the vertically integrated incumbent LEC will be

[12] Baumol, William J. and J. Gregory Sidak, *Transmission Pricing and Stranded Costs in the Electric Power Industry*, Washington D.C.: The AEI Press, 1995, page 147.

charging competitors the same price for inputs which it implicitly charges itself. The primary benefit is that a markup on unbundled network elements is competitively neutral and will only serve to promote the competitive process.

Q. PLEASE EXPLAIN HOW THE MARKUP ON UNBUNDLED NETWORK ELEMENTS MIGHT BE CALCULATED.

A. The pricing of UNEs could be done in much the same fashion as the pricing for other services; the level of contribution could be based on market conditions.

Alternatively, the markup may simply take the form of a factor comparable to a "common cost" factor which is multiplied by the cost of network elements to obtain the amount of the markup for each element. The factor is calculated as the cost of stranded investments divided by the total costs of network elements, where it is economically appropriate to include only those costs which are associated with the wholesale portion of the firm. This approach is consistent with the pricing methodologies advocated by the FCC with one exception: the FCC advocated funding stranded costs through a universal service funding mechanism rather than through unbundled pricing and interconnection. There is no sound economic basis for precluding the use of unbundled and interconnection prices to compensate for stranded costs.

EVEN INTERMEDIATE SERVICES SOLD TO COMPETING PROVIDERS SHOULD NOT BE PRECLUDED FROM MAKING A CONTRIBUTION TOWARD COMMON COSTS

Q. IF ONE ASSUMES THAT ONE OR MORE OF THE SERVICES IN THIS PROCEEDING IS A MONOPOLY SERVICE, OR AN ESSENTIAL SERVICE, SHOULD THAT SERVICE BE PRECLUDED FROM PROVIDING A REASONABLE CONTRIBUTION TOWARD THE COMMON COSTS OF THE LEC?

A. No, all services should be allowed to provide a contribution to the common costs of the LEC.

First, it is likely that the very reason a service or service element is essential is precisely because it is produced most efficiently as a unique element in the supplier's scope of services by sharing costs. Thus there necessarily would be common costs to be recovered.

Second, it is possible that a telecommunications provider would *only* provide services which some customers would consider to be "monopoly" or "essential" services. Such classifications do nothing to make the common costs of a firm disappear or be magically recovered elsewhere. Under such a rule, a LEC which provides some "monopoly" or "essential" services as well as other services, would be faced with attempting to recover most if not all of its common costs from the "other" services at a time when expanding competition makes it difficult or impossible to obtain such contribution.

Q. ISN'T IT UNFAIR FOR A ALEC TO PAY MORE THAN THE INCREMENTAL COST OF A SERVICE IF IT BELIEVES THAT IT NEEDS THAT SERVICE TO PROVIDE ITS OWN SERVICES?

A. No. The incremental cost of services represents only a portion of the total costs of a LEC. LEC shared facilities and shared costs are shared by subscribers, by those entities interconnecting with the LEC, and by those entities who use the LEC's unbundled facilities to which their value added services are appended. This is especially true in the increasingly competitive environment today. Similarly, I expect that each of the components or intermediate services which the ALEC purchases from *other* sources (such as switch providers and other carriers) are priced to provide a sufficient contribution to the common costs of those other suppliers. I don't expect Sprint to provide services to a reseller at incremental cost even though the reseller may need the services it receives in order to provide its own services. I don't expect Sprint to price its own access services at incremental cost. As a general matter, I expect that a ALEC "needs" most of the facilities and factors of production they purchase, not just the ones they purchase from a LEC; however, this does not preclude prices for each of these components from generating a contribution to its provider.

Q. DOESN'T A ALEC HAVE TO RECOVER ALL OF ITS COMMON COSTS FROM END-USER SERVICES?

A. No. I expect that most ALECs will obtain some combination from both end-user services and intermediate services (including access services to IXCs). The very

nature of competition to date, with the terms "alternative access vendor" or "competitive access provider" indicates that providing intermediate services (e.g., access to IXCs) will be a significant service and a source of contribution. To the extent that the ALECs have common costs, they must obtain contribution from both intermediate and end-user services. Every firm must recover its common costs from all of the services it provides. For example, to the extent that a ALEC only provides access services to IXCs, it must obtain all of its contribution, to recover its common costs, from those intermediate services.

However, the critical distinction is that the ALEC has the opportunity to utilize the ubiquitous facilities of the incumbent LEC when and where it chooses. An incumbent LEC facing a franchise obligation has no such opportunities.

Forcing LECs to price intermediate services at incremental cost would allow ALECs to utilize the shared facilities and common costs of the LEC ubiquitous network when and where they choose without contributing to the recovery of LEC common costs. By doing so, the ALEC would avoid incurring the associated common costs. Without a contribution from intermediate services, the LEC's end-user customers must provide *all* of the contribution to cover its common costs, despite the fact that both the LEC's end-user customers and the ALECs purchasing unbundled LEC component services share in the capabilities of the LEC's ubiquitous network.

Q. HOW ARE THE CIRCUMSTANCES FOR THE INCUMBENT LEC AND THE ALEC DIFFERENT?

A. ALECs will benefit from the incumbent's economies of scope. When an incumbent LEC provides an unbundled loop, for example, the incumbent LEC does not share in the benefits associated with any common costs of the ALEC purchasing the unbundled loop. Even with local interconnection, it is the incumbent LEC which has placed a ubiquitous network of facilities in advance of the demand for services in order to satisfy carrier of last resort obligations to serve customers in a timely fashion. Facilities-based ALECs have far greater latitude to build facilities if, when, and where they choose. They may use the facilities of the LECs in all other instances. The reverse is not true at this time.

Q. IF THE LEC IS PRECLUDED FROM OBTAINING A REASONABLE CONTRIBUTION FROM INTERMEDIATE SERVICES, WHAT WILL BE THE EFFECT ON THE LEC'S END-USER CUSTOMERS?

A. The burden on LEC end-user customers of recovering common costs will continually increase in such a scenario. Assume that BST's total costs are $100.00, with $50.00 of common costs and $25.00 of incremental costs for residential local service and $25.00 of total incremental costs for all other services. Also assume that residential service generates $25.00 in revenue, just covering its incremental costs. Initially then, on average all other services must generate $2.00 in contribution for each $1.00 of incremental cost; i.e., the other services must provide on average 200% contribution to recover the $50.00 of common costs.[13]

[13] For simplicity we ignore demand elasticity in this example without loss of generality.

For simplicity, also assume that BST initially had 100% market share of the other end-user services in its territory. Later, other end-user service providers enter by purchasing unbundled loops and other unbundled BST facilities which are priced at incremental cost, and they capture 50% of the end-user market for these other services. BST must now obtain $4.00 in contribution above its incremental costs (i.e., a 400% contribution) from each of *its* remaining end-user customers. In fact, if residential local service is not recovering its incremental costs, as my experience shows, then the contribution levels from all other services must be even higher in each scenario. Of course, the higher the contribution margin for the remaining end-user customers of the LEC the more rapidly competing firms will gain market share in the end-user segment of the market. In some sense, this such a pricing approach would not only constitute a death spiral, it would constitute an accelerating death spiral.

Such continued increases in contribution are unsustainable in competitive markets. In fact, the obligation to provide unbundled network elements, retail services for resale and interconnection services will likely cause LECs to face shrinking margins in the retail portion of the business. Pricing UNEs at or close to any measure of incremental cost leaves the LEC with no real opportunities to recover its costs.

Peculiarly, both the new end-user service providers (ALECs) and BST explicitly or implicitly utilize at least a portion of BST's shared facilities and receive some of the benefits of its common costs. However, when unbundled components are

priced at incremental cost, only BST's end-user customers will pay for the benefits of the shared facilities and common costs. Obviously, this creates an artificial advantage for ALECs and a disadvantage for BST that it cannot overcome.

PRICING UNES AT INCREMENTAL COST WOULD RETARD THE GROWTH OF FACILITIES-BASED COMPETITION

Q. DOES PRICING UNES AT INCREMENTAL COST PROVIDE AN INCENTIVE FOR FACILITIES BASED COMPETITION?

A. Certainly not. A competing firm would virtually never choose to take the risk of constructing facilities when it has the opportunity to "lease" unbundled components from the incumbent LEC *at the LEC's incremental cost.* The competing provider can lease facilities priced at incremental cost at the time, scale, location and duration of its choosing and it can change any of these factors as market conditions change. Even its incremental costs can be abruptly reduced, unlike the costs to the owners of the leased facilities. Pricing unbundled components at LRIC or TELRIC will essentially guarantee that alternative providers will construct no new facilities to compete with the incumbent LEC.

UNE PRICING STANDARDS AND COST TERMINOLOGY IN THE ACT AND FCC INTERCONNECTION ORDER

Q. WHAT PRICING STANDARD IS ESTABLISHED BY THE TELECOMMUNICATIONS ACT OF 1996 FOR INTERCONNECTION AND UNBUNDLED NETWORK ELEMENTS?

A. Section 252(d)(1) of the Telecommunications Act of 1996 (hereinafter the "Act"), regarding pricing standards for interconnection and network element charges, states as follows:

> Determinations by a State commission of the just and reasonable rate for the interconnection of facilities and equipment for purposes of subsection (c)(2) of section 251, and the just and reasonable rate for network elements for purposes of subsection (c)(3) of such section (A) shall be (I) based on the cost (determined without reference to a rate -of-return or other rate-based proceeding) of providing the interconnection or network element (whichever is applicable), and (ii) nondiscriminatory, and (B) may include a reasonable profit.

Q. DOES THE FCC REQUIRE THAT RATES FOR UNES BE SET EQUAL TO TOTAL ELEMENT LONG RUN INCREMENTAL COST (TELRIC)?

A. No. The FCC Interconnection Order clearly states that prices for interconnection should not only recover the TELRIC of a particular network element, but prices should be set *above* TELRIC in order to recover the common costs of the firm.

We conclude that, under a TELRIC methodology, incumbent LECs' prices for interconnection and unbundled network elements shall recover the forward-looking costs directly attributable to the specified element, as well as a reasonable allocation of forward-looking common costs.[14]

Q. ARE COMMON COSTS LIKELY TO BE SMALLER WHEN CALCULATING TELRIC AS OPPOSED TO CALCULATING TRADITIONAL LRIC OR TSLRIC FOR SERVICES?

A. Yes. The FCC Interconnection Order states: "[t]herefore, the amount of joint and common costs that must be allocated among separate offerings is likely to be much smaller using a TELRIC methodology rather than a TSLRIC [total service long-run incremental cost] approach that measures the costs of conventional services."[15] Also, in discussing TELRIC methodology, the FCC Interconnection Order states:

> Directly attributable forward-looking costs also include the incremental costs of shared facilities and operations. Those costs should be attributed to specific elements to the greatest extent possible. ... More broadly, certain 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. The forward-looking costs directly

[14] FCC Interconnection Order, paragraph 682.

[15] FCC Interconnection Order, paragraph 678.

attributable to local loops, for example, shall include not only the cost of the installed copper wire and telephone poles but also the cost of payroll and other back office operations relating to the line technicians, in addition to other attributable costs.[16]

Q. HOW DOES THIS AFFECT LEC CALCULATIONS OF TELRICS?

A. Because the FCC Interconnection Order requires attribution of conventional common costs or overheads to the greatest extent possible, the sum of the TELRICs of the elements used by a service is likely to be substantially greater than the traditional incremental cost of the service.

Q. PLEASE EXPLAIN THE DIFFERENCE BETWEEN TELRIC AND TRADITIONAL LRIC OR TSLRIC AS IT RELATES TO COMMON COSTS.

A. The FCC suggests that the amount of costs that will be directly attributable will be greater under a TELRIC methodology than a traditional LRIC or TSLRIC methodology:

Therefore, the amount of joint and common costs that must be allocated among separate offerings is likely to be much smaller using a TELRIC methodology rather than a traditional LRIC approach that measures the costs of conventional services.[17]

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[16] FCC Interconnection Order, paragraph 682, excluding footnote.

[17] FCC Interconnection Order, paragraph 678.

Q. SINCE MORE COSTS WILL BE DIRECTLY ATTRIBUTABLE UNDER A TELRIC METHODOLOGY THAN A TSLRIC METHODOLOGY, HENCE LEAVING A SMALLER AMOUNT OF COMMON COSTS TO BE RECOVERED, WHY THEN DO PRICES STILL NEED TO BE SET ABOVE TELRIC, RATHER THAN EQUAL TO TELRIC?

A. Traditional LRIC methodology results in common costs which cannot be attributed to individual services. The amount of these common costs is very significant. Although the FCC's TELRIC methodology aims to reduce the amount of these common costs, there is no doubt that there will still be a significant amount of common costs which will not be directly attributable to network elements. However, the actual amount of common costs will depend on how network elements are defined.

The greater the efficiencies of sharing facilities and costs, the larger the common costs of the firm and the greater the need to set prices in excess of TELRIC.[18] In other words, such increased efficiencies will reduce incremental costs but increase common costs. However, these common costs must be recovered for a firm to remain in business.

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[18] The efficiencies due to sharing facilities and costs in the provision of multiple services are sometimes called economies of scope. This is similar to, but may be distinct from, the concept of economies of scale which reflects cost savings from large scale production of a particular (a single) product or service.

The increased efficiencies from sharing facilities and costs is desirable for the firm and desirable for society as well. However, these costs must be recovered from the services which the firm provides; pricing at TELRIC does not allow for the recovery of the common costs which are beneficial to society. It is inappropriate to penalize a company for improving its efficiency by not allowing recovery of common costs.

Q. DOES A TELRIC CALCULATION REFLECT NEW TECHNOLOGY?

A. Yes, it reflects the costs of the facilities which are being placed new today in LEC networks. However, in real markets, at any point in time, every provider cannot instantaneously adopt the newest technology. In fact, in real markets it is not the costs of the most efficient provider which determines market prices but rather the least efficient provider which just barely survives in the market. The most efficient provider in a market, through skill, foresight or luck, will have a temporary advantage over the other providers; this temporary advantage is reflected in a prices which are in excess (temporarily) above its economic costs (including common costs). Other firms will establish prices, or face prices in the market place, which are just equal to their economic costs. Still other firms are even less efficient and will face prices below their economic costs; such firms will eventually exit the market. Prices in the market will not reflect the most efficient provider at that point in time. Any TELRIC calculation must reflect the reality of realizable efficiencies rather than theoretical efficiencies.

Q. DOES THE FCC INTERCONNECTION ORDER SUGGEST THAT TELRIC CALCULATIONS ASSUME THAT THERE ARE NO EXISTING LEC WIRE CENTERS?

A. No it does not. The FCC Interconnection Order states:

> We, therefore, conclude that the forward-looking pricing methodology for interconnection and unbundled network elements should be based on costs that assume that wire centers will be placed at the incumbent LEC's current wire center locations, ..."[19]

Existing customer locations and existing switch locations establish the actual loop lengths that would exist with new loop facilities investment. Therefore existing loop characteristics can be utilized in estimating the forward-looking costs of providing loop facilities to customers.

Q. DOES THE FCC INTERCONNECTION ORDER REQUIRE THAT TELRIC CALCULATIONS REFLECT THE ACTUAL NUMBER OF UNITS OR CUSTOMERS?

A. Yes, the FCC Interconnection Order states:

> Per unit costs shall be derived from total costs using reasonably accurate 'fill factors' (estimates of the proportion of a facility that will be 'filled'

[19] FCC Interconnection Order, paragraph 685. Also stating: "[t]his approach mitigates incumbent LECs' concerns that a forward-looking pricing methodology ignores existing network design, ...".

with network usage); that is the per-unit costs associated with a particular element must be derived by dividing the total cost associated with the element by a reasonable projection of the actual total usage of the element.[20]

RELEVANT COMMON COSTS

Q. AT PAGE 12 OF HIS DIRECT TESTIMONY MR. STAHLY SUGGESTS THAT MARKETING COSTS ARE NOT RELEVANT COMMON COSTS. DO YOU AGREE WITH THIS CHARACTERIZATION?

A. No. The important phrase in the Telecommunications Act in this regard is: "excluding the portion thereof attributable to any marketing, billing, collection, and other *costs that will be avoided by the local exchange carrier*." (emphasis added).[21] Clearly the most reasonable interpretation of this phrase is that the clause "costs that will be avoided by the local exchange carrier" modifies all of the items to be excluded: marketing, billing, collection and other costs. It seems likely that at this point in the Act that Congress wished to establish a calculation of the costs that would be avoided and that such costs would therefore be excluded from the wholesale price. Implicitly Sprint would interpret this phrase as an arbitrary imposition of a list of items to be excluded (marketing, billing and collection) and that the cost causative language "costs that will be avoided" only be applied to any other costs. Such an interpretation is not reasonable.

[20] FCC Interconnection Order, paragraph 682.

[21] Section 252(d)3.

In addition, the FCC Interconnection Order allows for consideration of marketing-related costs that are attributable to wholesale activities. For example the FCC Interconnection Order states:

> The statutory pricing standard for wholesale rates requires state commissions to (1) identify what marketing, billing, collection, and other costs will be avoided by incumbent LECs when they provide services at wholesale;[22]

and with regard to accounts 6611, 6612, 6613 and 6623,

> We also agree, however, with parties that argue that some expenses in these accounts will continue to be incurred with respect to wholesale products and customers, and that some new expenses may be incurred in addressing the needs of resellers as customers. ... The Georgia Commission, on the other hand, decided that 25 percent of sales and product advertising expenses would continue to be incurred in the wholesale operation.[23]

Clearly the Act and the FCC Interconnection Order allow consideration of marketing costs.

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[22] FCC Interconnection Order, paragraph 908.

[23] FCC Interconnection Order, paragraph 928.

Q. DO UNREGULATED FIRMS WHICH PRIMARILY PROVIDE WHOLESALE SERVICES OR INTERMEDIATE SERVICES ENGAGE IN MARKETING ACTIVITIES?

A. Certainly. Firms such as Levi-Straus and General Motors, which primarily or exclusively provide intermediate services or service not provided to the end-user still engage in advertising and other marketing activities.

Q. MR. STAHLY PROVIDES AN EXHIBIT "3" TO HIS TESTIMONY WHICH HE PURPORTS REPRESENTS AN 11% COMMON COST FOR SOUTHWESTERN BELL TELEPHONE. DO YOU HAVE ANY COMMENTS?

A. Yes. It is not clear from the exhibit that the 11.12% figure in his exhibit reflects the full common costs that Mr. Stahly discusses in his testimony. The exhibit shows two other categories of costs which would have to be considered for possible inclusion in a common cost category: "network and services support investments" at 8.49%; and "network and service support expenses" at 4.99%.

In contrast to Mr. Stahly's exhibit, Southwestern Bell Telephone (SWBT), in its recent consolidated arbitration proceeding, estimated its forward looking common costs as 16.03%.[24] This calculation was specifically designed to reflect the forward-looking common costs described in the FCC Interconnection Order. This calculation by SWBT may be conservatively low. This figure of 16.03%

[24] Texas Docket Nos. 16189, 16196, 16226, 16285, 16290. This was the consolidated interconnection, unbundling and resale proceeding for all parties petitioning for arbitration.

for SWBT for 1995 is reflected in SWB exhibit No. 29 in that proceeding (attached as exhibit RDE-1 to my testimony). This exhibit shows the same form of calculation utilized by SWBT also performed for other RBOCs, other LECs and a separate calculation for AT&T. It is noteworthy that the calculation for other RBOCs was 22.9%, for all reporting LECs it was 21.64% and for AT&T in 1994 (the most recent year with data available for AT&T) the proportion of common cost was 19.64%.

PROFIT

Q. AT PAGE 20 OF HIS TESTIMONY, MR. STAHLY STATES THAT: "BECAUSE TELRIC INCLUDES THE COST OF CAPITAL, TELRIC INCLUDES A NORMAL LEVEL OF PROFIT." DO YOU AGREE WITH THIS CHARACTERIZATION?

A. No, but contrasting the terms "profit" and "contribution" will help substantially in clarifying the debate here. BellSouth does not make "profits" on individual services or elements because of BST's joint, shared and common costs. Particular services or elements may make a contribution to BST's total costs, and, if enough services or elements make contributions, BST as a firm may make a profit in the accounting sense. Profit is what is left over after all costs have been paid; it is the margin by which total revenues exceed total costs. BST as a firm does not make a profit in the economic sense of the word until it has recovered all its joint and common costs and a return on the capital invested in its operation as a whole.

It is critical to recognize that an incremental cost calculation only includes the cost of capital (both the cost of debt and equity) for the investments which are directly attributable to the service in question. If each service is priced equal to its incremental cost then the incremental cost of each service, including a return on the directly attributable capital will be recovered, but the common costs of the firm will remain completely unrecovered, and the firm certainly will not generate a profit.

Consider again the numerical example of the provision of services A and B, I offered in my direct testimony. Products A & B each have a traditional incremental cost per unit of $.25 and with demand of 100 for each service; their total incremental cost is $25 per service. However, to produce either A or B the firm must also spend $50 per period on a machine; in this simple example, the $50 is a common cost of these two products. Of the total $25 incremental cost of service A, assume that $3 represents the cost of equity for a normal return to pay shareholders for the investment in capital equipment which is specifically attributable to the provision of service A. Even when the firm has recovered the $25 of traditional incremental cost for A and the $25 of traditional incremental cost of B, both $25 including a return on investment to shareholders for *that portion* of the capital investment, the firm must still recover an additional $50 in common costs. Without generating $100 in revenue in total, the firm cannot be said to recover its costs and earn even a zero economic profit.

Q. FOR A LEC, DOES PRICING SERVICES AT TRADITIONAL LRIC OR TSLRIC LEAD TO A LOSS?

A. Yes. It is completely nonsensical to suggest that any (and implicitly every) multiservice firm can earn a "reasonable profit" simply by pricing its services at traditional LRIC or TSLRIC. LECs have common costs which must also be recovered. By pricing services A and B at incremental cost, my hypothetical firm does not earn a reasonable profit, rather it suffers an economic loss of $50.

It is noteworthy that Mr. Stahly did not document or support that Sprint prices its services at marginal cost, LRIC, TSLRIC or even TELRIC. If such prices truly generate a "reasonable profit" then one would expect Sprint to provide such documentation. Alternatively, one might expect a promise by Sprint that it will price its services in Florida at LRIC, TSLRIC or TELRIC in order to just earn a reasonable profit. In fact, however, Mr. Stahly does not state or even suggest that such pricing occurs for Sprint services. The reason is obvious, multiservice firms, particularly LECs, face significant shared, joint and common costs which must be recovered by pricing services in excess of LRIC, TSLRIC or TELRIC.

COSTS OF CAPITAL, RATES OF DEPRECIATION AND "EFFICIENT" TECHNOLOGY

Q. AT PAGE 20 OF HIS DIRECT TESTIMONY, MR. STAHLY CONCLUDES THAT "THE RETURN LEVEL SHOULD BE THE MOST RECENT

AUTHORIZED INTRASTATE RATE OF RETURN OR PRESCRIBED INTERSTATE RATE OF RETURN." DO YOU HAVE ANY COMMENTS?

A. Yes. An authorized rate of return (cost of capital) and prescribed depreciation rates do not necessarily reflect the forward-looking costs of doing business. A more relevant cost comparison might be the cost of money and depreciation schedule which AT&T faces or the long distance portion of Sprint utilizes.

In fact, to the extent that BST's embedded costs are greater than forward-looking costs, this is strong evidence that the prescribed depreciation rates of the past are too low (i.e., that prescribed lives are too long), leading to valuations on the books in excess of the market value of some of the existing assets.

Q. AT PAGE 23 OF HIS DIRECT TESTIMONY, MR. STAHLY DISCUSSES THE REFLECTION OF "THE MOST EFFICIENT TECHNOLOGY AVAILABLE" IN CALCULATING TELRIC COSTS. IS THIS A REASONABLE CHARACTERIZATION OF THE IMPORTANT PART OF THE LANGUAGE IN THE FCC INTERCONNECTION ORDER ON TELRIC?

A. No. It is important to recognize the full description of the TELRIC method which exists in the FCC Interconnection Order. At paragraph 685 it also states:

> Under the third approach, prices for interconnection and access to unbundled elements would be developed from a forward-looking economic cost methodology based on the most efficient technology *deployed* in the

incumbent LEC's current wire center locations. This approach mitigates incumbent LECs' concerns that a forward-looking pricing methodology ignores *existing network design*, while basing prices on efficient, new technology that is *compatible with existing infrastructure*. This benchmark of forward looking cost and *existing network design* most closely represents the incremental costs that incumbents *actually expect to incur* in making network elements available to new entrants. (emphasis added)

THE COMMISSION SHOULD NOT FORCE BILL AND KEEP FORMS OF INTERCONNECTION COMPENSATION

Q. SHOULD THE COMMISSION FORCE THE USE OF A BILL AND KEEP MECHANISM FOR INTERCONNECTION COMPENSATION?

A. No. Certainly such a mechanism is acceptable if both parties agree to it. However, such an arrangement is unduly weighted in favor of entrants. The risk of unbalanced traffic falls primarily on the LECs, and to some extent is within the control of the entrants. Generally, bill and keep arrangements are contrary to competitive outcomes and economic efficiency. The incentives in this arrangement are not to become the most efficient provider of service, but to maximize the opportunity to bill (and keep) revenues. For example, the incumbent LEC acquired both high and low geographical concentrations of revenue by building a large network (pursuant to its universal service and carrier of last resort obliga-

tions) and was able to maintain affordable rural rates through statewide average tariffs or limited tariff differentials between urban and rural areas. A new entrant might be able to bill, say, 50% of the LEC's revenue while making only 10% of the LEC's investment (and incurring 10% of the LEC's cost). A bill and keep arrangement takes all of the contribution from the highest contributing portions of the business (those that the competitor wants to enter) and requires the LEC to find alternative sources of contribution to sustain its universal service and carrier of last resort obligations. In other words, the arrangement essentially erodes away one of the most important sources of contribution to the universal service and carrier of last resort obligations. A bill and keep arrangement would thus greatly increase the need for funding the LEC's universal service and carrier of last resort obligations and would reward the new competitor in ways not possible in an unrestricted competitive environment. In a competitive environment, the LEC could win the business where it was most efficient (and lose business where it was inefficient) through flexibly pricing to profitably meet the competition. Similarly, the new entrant would enter the areas with low revenue concentrations if it could more efficiently serve in those areas than could the LEC. In other words, each player would be attracted by profit opportunities equally in rural and urban areas depending on who was most efficient, not where they could bill and keep the most revenue and leave the high cost, low revenue business to the carrier with the universal service and carrier of last resort obligations.

Q. IS THE BILL AND KEEP FORM OF MUTUAL COMPENSATION CONSISTENT WITH COMPETITIVE OUTCOMES?

A. No. For example, wholesalers generally do not agree that retailers may keep all revenue received. Even when wholesalers supply each other's retailers (this is the situation between interconnecting retail telephone suppliers, banks, and airlines), they do not compensate each other simply by allowing each other's retailers to keep all revenues received from further distribution of the goods. Rather, the wholesale and retail transactions are negotiated at "arms length," not bill and keep agreements. The risk of imbalanced compensation is too great to allow such agreements to become common in competitive markets.

In general, in order to avoid inadvertent price discrimination and maintain competitive parity, all transactions among carriers should be explicit. Bill and keep arrangements mask the gross revenue flows among carriers by assuming the net flows are and should be zero (a "net" flow is what one carrier owes the other less what is due back).

Q. ARE THERE CERTAIN CIRCUMSTANCES UNDER WHICH BILL AND KEEP ARRANGEMENTS ARE ACCEPTABLE?

A. If the unlikely circumstances occur where traffic between two carriers is balanced and the services each carrier provides to the customers of the other carrier are similar, then bill and keep provides an expedient means of achieving the same result as would prevail if each carrier billed the other. As deviations in balanced traffic and services occurs, it becomes increasingly important to abandon bill and keep arrangements.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

SWB-29

Summary

Emmerson Exhibit

COMPARISON OF COMMON COST

	1989	1990	1991	1992	1993	1994	1995
AT&T	0.1410	0.1535	0.1799	0.2773	0.2599	0.1984	
RBOCS EXCL SWBT	0.2199	0.2153	0.2376	0.1903	0.1825	0.2242	0.2290
SWBT	0.1910	0.2153	0.2098	0.1938	0.2075	0.1588	0.1603
SWBT - TEXAS				0.1895	0.2066	0.1559	0.1547
ALL REPORTING LECS	0.2124	0.2153	0.2261	0.1948	0.1862	0.2201	0.2164

BellSouth Telecommunications, Inc.
FL Docket No. 961150-TP
Exhibit No. RDE-1 _____
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