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**DIRECT TESTIMONY OF DR. RICHARD D. EMMERSON
ON BEHALF OF BELL SOUTH TELECOMMUNICATIONS, INC.
BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

DOCKET NO. 960916-TP

SEPTEMBER 9, 1996

INTRODUCTION

Q. PLEASE STATE YOUR NAME AND GIVE YOUR 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 ("BellSouth" 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-

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

14
15 My work experience includes past positions as Senior Vice President of Criterion
16 Incorporated, President of the Institute for Policy Analysis, and President of
17 Economic Research Associates. These companies performed economic analysis
18 for competitive firms, regulated firms, government agencies, regulatory com-
19 missions, and trade associations. INDETEC International, Inc. provides consult-
20 ing and training services to international telephone companies, Lucent Tech-
21 nologies, the United States Telephone Association (USTA), Bellcore, Commis-
22 sion staff members, partners and managers of large accounting and consulting
23 firms, and interexchange companies (these services were formerly offered
24 through INDETEC Corporation and Emmerson Enterprises, Inc.). During the
25 past 20 years, I have taught a wide variety of courses ranging from basic eco-

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

5

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

7

8 A. American Communications Services ("ACSI") has petitioned the Florida Public
9 Service Commission ("FPSC" or "Commission") to arbitrate unresolved issues
10 that have arisen in its interconnection negotiations with BellSouth. These unre-
11 solved issues involve the pricing of three unbundled network elements
12 ("UNEs"). The three UNE's include unbundled loops, loop cross-connects and
13 loop channelization. My testimony discusses the basic economic principles
14 which should underlie the Commission's consideration of UNE pricing.

15

16 **THE FCC'S UNE PRICING STANDARDS AND COST TERMINOLOGY**

17

18 Q. WHAT PRICING STANDARD IS ESTABLISHED BY THE TELECOMMU-
19 NICATIONS ACT OF 1996 FOR INTERCONNECTION AND UNBUNDLED
20 NETWORK ELEMENTS?

21

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

25

1 Determinations by a State commission of the just and reasonable rate for the in-
2 terconnection of facilities and equipment for purposes of subsection (c)(2) of
3 section 251, and the just and reasonable rate for network elements for purposes
4 of subsection (c)(3) of such section (A) shall be (i) based on the cost (determined
5 without reference to a rate -of-return or other rate-based proceeding) of providing
6 the interconnection or network element (whichever is applicable), and (ii) non-
7 discriminatory, and (B) may include a reasonable profit.
8

9 Q. IN ITS RECENTLY RELEASED ORDER OF AUGUST 8, 1996,¹ WHAT
10 METHODOLOGY DID THE FCC CONCLUDE SHOULD SERVE AS THE
11 BASIS FOR PRICING UNBUNDLED NETWORK ELEMENTS?
12

13 A. The FCC concluded that the price for an unbundled network element should be
14 based on the LEC's total service long run incremental cost (TSLRIC) of that
15 particular network element (which the FCC calls "Total Element Long-Run In-
16 cremental Cost," or TELRIC), plus a reasonable share of forward-looking joint
17 and common costs.²
18

19 Q. PLEASE DEFINE THE MEANING OF THE ACRONYM TELRIC.
20

21 A. The acronym TELRIC actually stands for Total Element Long Run Incremental
22 Cost and it is a terminology coined by the FCC in its recent order³ dealing with
23

24 ¹ The 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 I").

25 ² FCC Interconnection Order I, paragraph 29 and 672.

³ FCC Interconnection Order I, paragraph 678.

1 the implementation of the unbundling and interconnection aspects of the Tele-
2 communication Act of 1996. However, even within the FCC's order itself there
3 are alternative applications of this term.

4
5 Q. HOW IS THE TERM TELRIC USED DIFFERENTLY IN THE FCC ORDER?

6
7 A. The term TELRIC, in many places of FCC Interconnection Order I, is used to
8 denote a methodology for developing costs of a set of functions, deemed to be
9 those that proposed competitors either want or need in order to compete with the
10 incumbent company. However, FCC Interconnection Order I also refers to the
11 term TELRIC when referencing a mechanism for setting a price for these pro-
12 posed functions. The use of the same terminology to refer to two very different
13 disciplines creates a multitude of opportunities for confusion in the application of
14 these principles going forward.

15
16 Q. HOW DOES THE TELRIC COST METHODOLOGY DIFFER FROM A
17 TSLRIC OR TOTAL SERVICE LONG RUN INCREMENTAL COST METH-
18 ODOLOGY?

19
20 A. From a cost methodology perspective, specifically excluding pricing considera-
21 tions and joint or common allocations, there should be no difference in the actual
22 cost methods; only a change in the *cost object* under study. The same principles
23 of cost causation and identification should be used to determine the incremental
24 cost of an element, or a service.

25

1 Q. IF THE SAME METHODS, AND THE SAME INPUTS, ARE USED FOR
2 BOTH TELRIC AND TSLRIC STUDIES, HOW WILL THE RESULTING
3 AMOUNTS BE DIFFERENT?

4
5 A. A very basic principle is that the result of a cost study is highly interdependent
6 with the question that is being posed. If one assumes that the purpose of a TEL-
7 RIC study is to develop a price floor (again, excluding the reference to a TEL-
8 RIC price methodology) for a particular network function then the question is no
9 longer "What is the cost to the company to provide an additional unit of service
10 or product?" Instead, the question has been changed to "What is the cost to the
11 company of providing an element or function of the network in its entirety, with-
12 out regard to the services consuming it?". For example, in the case of a TSLRIC
13 study conducted for a particular service, the direct cost of the service would not
14 include any costs that are shared among other services using that capacity of the
15 network. However, a TELRIC study conducted on the elements of the previous
16 service would include as direct costs some of the costs that were identified as
17 shared in the service specific study. Pricing issues aside, the alignment of the
18 cost object under study with the actual network structure in terms of how costs
19 are incurred will serve to reduce shared costs and, instead, drive them to be a di-
20 rect cost of the object under study.

21
22 Q. IF THIS IS TRUE, AND SERVICES ARE CONSTRUCTED DIRECTLY
23 FROM THESE ELEMENTS, CAN THESE ELEMENTS JUST BE ADDED
24 TOGETHER TO OBTAIN THE COST FOR ANY SERVICE?

25

1 A. No. As I stated above, the determination of cost for any particular service in-
2 cludes considerations over and above the determination of the elements of which
3 it is constructed. In the previous example, the price floor for an element used in
4 the provision of the service would consider "spare" capacity as a shared cost, to
5 be recovered through prices. If, instead, the study were considered the sum of
6 previously constructed TELRIC studies, and the cost would have been in-
7 cluded as a direct cost of each element and the resulting service "cost" would
8 have a *de facto* allocation of shared costs among all services studied in this man-
9 ner.

10

11 Q. SHOULD THE RATES FOR UNES BE SET EQUAL TO TOTAL ELEMENT
12 LONG RUN INCREMENTAL COST (TELRIC)?

13

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

18

19 We conclude that, under a TELRIC methodology, incumbent LECs' prices for
20 interconnection and unbundled network elements shall recover the forward-
21 looking costs directly attributable to the specified element, as well as a reason-
22 able allocation of forward-looking common costs.⁴

23

24

25

⁴ FCC Interconnection Order I, paragraph 682.

1 In other words, a reasonable contribution⁵ must be made toward BellSouth's re-
2 sidual shared and common costs (sometimes called "joint and common costs").

3
4 Q. PLEASE EXPLAIN THE DIFFERENCE BETWEEN TELRIC AND TSLRIC
5 AS IT RELATES TO SHARED AND COMMON COSTS.

6
7 A. The FCC suggests that the amount of costs that will be directly attributable will
8 be greater under a TELRIC methodology than a TSLRIC methodology:

9
10 Therefore, the amount of joint and common costs that must be allocated among
11 separate offerings is likely to be much smaller using a TELRIC methodology
12 rather than a TSLRIC approach that measures the costs of conventional serv-
13 ices.⁶

14
15 Q. SINCE MORE COSTS WILL BE DIRECTLY ATTRIBUTABLE UNDER A
16 TELRIC METHODOLOGY THAN A TSLRIC METHODOLOGY, HENCE
17 LEAVING A SMALLER AMOUNT OF COMMON COSTS TO BE RECOV-
18 ERED, WHY THEN DO PRICES STILL NEED TO BE SET ABOVE TELRIC,
19 RATHER THAN EQUAL TO TELRIC?

20
21 A. TSLRIC methodology results in common costs which cannot be attributed to
22 individual services. The amount of these common costs is very significant. Al-

23
24 ⁵ By "reasonable contribution", I refer to the level of contribution which would be obtained according
25 to effectively competitive market conditions. It is possible that this contribution may be minimal or
even zero if market conditions so indicate. Such conditions do not exist in local exchange companies.

⁶ FCC Interconnection Order I, paragraph 678.

1 though TELRIC methodology aims to reduce the amount of these common costs,
2 there is no doubt that there will still be a significant amount of common costs
3 which will not be directly attributable to network elements. As explained previ-
4 ously in my testimony, however, the actual amount of common costs will depend
5 on how network elements are defined.

6
7 The greater the efficiencies of sharing facilities and costs, the larger the shared
8 and common costs of the firm and the greater the need to set prices in excess of
9 TELRIC.⁷ In other words, such increased efficiencies will reduce incremental
10 costs but increase shared and common costs. However, these shared and com-
11 mon costs must be recovered for a firm to remain in business.

12
13 The increased efficiencies from sharing facilities and costs is desirable for the
14 firm and desirable for society as well. However, these costs must be recovered
15 from the services which the firm provides; pricing at TELRIC does not allow for
16 the recovery of the shared and common costs which are beneficial to society. It
17 is inappropriate to penalize a company for improving its efficiency by not allow-
18 ing recovery of shared and common costs.

19
20 Q. IF PRICING AT TELRIC LEAVES SHARED AND COMMON COSTS UN-
21 RECOVERED, SPECIFICALLY HOW SHOULD PRICES BE SET TO GEN-

22

23

24 ⁷ The efficiencies due to sharing facilities and costs in the provision of multiple services are sometimes
25 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 serv-
 ice.

1 ERATE THE ADDITIONAL REVENUE REQUIRED TO COVER THESE
2 COSTS?

3
4 A. Prices should be set based on market conditions in such a way that the contribu-
5 tions from all services (revenues in excess of incremental costs) are sufficient to
6 cover the shared and common costs of the firm. It is the value of the service to
7 the customer and the market conditions for that service, not cost-based formulas,
8 which will determine how shared and common costs can be recovered in the
9 marketplace. Every network element should provide a contribution toward
10 shared and common costs, based on market conditions. The market place is
11 where prices should be determined. Dr. Alfred Kahn is very emphatic about this
12 point as explained in the following editorial:

13
14 The FCC should simply get out of the way and leave the decisions to investors
15 and consumers. The commission should call off its cost-allocation rule making,
16 leave the prices of regulated services where they are and let the market work.⁸

17
18 **A LOCAL EXCHANGE COMPANY (LEC) SHOULD NOT BE PROHIB-**
19 **ITED FROM PRICING ITS SERVICES TO OBTAIN CONTRIBUTION**
20 **TO RECOVER ITS SHARED AND COMMON COSTS**

21
22 **LEC SHARED COSTS ARE SIGNIFICANT**

23
24
25

⁸ Kahn, Alfred E., "Ask Not the Bells for Tolls," *Wall Street Journal*, August 6, 1996, page A14.

1 Q. ACSI'S PETITION NOTES THAT THE FCC'S INTERCONNECTION OR-
2 DER I CALLS FOR PRICING UNE'S AT TELRIC PLUS A REASONABLE
3 SHARE OF FORWARD-LOOKING JOINT AND COMMON COSTS.⁹ DO
4 YOU AGREE WITH THIS PRICING POLICY?

5

6 A. Yes. A multiservice network-based Local Exchange Company (LEC) has shared
7 costs which must be recovered by pricing services above TELRIC.

8

9 Q. ARE THE SHARED COSTS OF A MULTISERVICE NETWORK-BASED
10 LEC LIKE BELLSOUTH SIGNIFICANT?

11

12 A. Yes. Shared costs include some of the costs of general engineering of the net-
13 work, right-to-use fees that apply to multiple functionalities, portions of many
14 physical facilities, the cost of capital and depreciation expenses on facilities
15 which are not directly attributable to individual services, operating expenses and
16 even taxes. For example, Mr. Frank Kolb of BellSouth, in Georgia Public Serv-
17 ice Commission Docket 5755-U (page 3) testified:

18

19 "Q. Could Southern Bell price all of its services at incremental cost?

20

21 A. Not if Southern Bell wants to stay in business. The incremental cost of all
22 services provided by Southern Bell represents approximately 50% of the total
23 cost of doing business."

24

25 ⁹ ACSI's Petition for Arbitration at page 6.

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Similarly, Barb Smith of Southwestern Bell Telephone, in Kansas Docket No. 190,492-U (page 7) testified:

"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.

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 function, legal and administrative 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, econometric techniques have not demonstrated a statistically significant relationship between individual services and general overhead expenses, perhaps

1 because there is little independent variation in LECs' scopes of services or be-
2 cause there is no such relationship.¹⁰

3
4 Finally, the very nature of many costs is clearly shared. Resources (such as cer-
5 tain rights to use fees, computer programming, and general organizational ac-
6 tivities) are performed once without the need to expand the scale of activities to
7 accommodate greater volumes of business including adding products or services.

8
9 Q. DO YOU BELIEVE THAT A LEC HAS CHARACTERISTICS WHICH
10 CAUSE IT TO TEND TO HAVE A HIGHER PROPORTION OF SHARED
11 COSTS THAN OTHER COMPETING FIRMS?

12
13 A. Yes, there are several factors which I believe will cause a LEC, like BellSouth,
14 to tend to have a higher proportion of shared costs than other competing firms.
15 These factors include: 1) a large number of services offered; 2) network-based
16 service provision; 3) a franchise obligation to provide ubiquitous service over
17 broad geographic areas; 4) large scale and lumpy investment characteristics; 5)
18 predominance of services rather than products; and 6) "leasing" of virtually no
19 unbundled components from other providers.

20
21 Q. WHAT DO YOU MEAN WHEN YOU SAY LECS ARE "LEASING" VIRTU-
22 ALLY NO UNBUNDLED COMPONENT?

23
24 ¹⁰ There certainly is a relationship between a LEC's overall size and its shared and common costs.
25 There is no evidence, however, that size measured by the firm's scope of services matters; it appears
that all costs (TSLRIC, shared, and common) are all proportionately smaller, perhaps because the
population, geography, and/or overall operations are smaller.

1

2 A. I have used the term lease in a generic sense to mean using the facilities of others
3 (at a price) rather than buying or building one's own facilities. LECs will tend to
4 own rather than lease facilities. In contrast, a high proportion of Inter Exchange
5 Company (IXC) and Alternative Local Exchange Company (ALEC) costs may
6 be comprised of expenditures to lease facilities from LECs. At one point in time,
7 AT&T claimed that approximately 60% of its toll revenues were paid to LECs
8 for access services. Therefore the leasing of LEC facilities (i.e., access pay-
9 ments) became part of the direct cost or incremental cost of AT&T's toll service.
10 An ALEC too may lease a significant proportion of its facilities from LECs and,
11 therefore, will necessarily have a higher proportion of incremental costs and a
12 smaller proportion of shared costs, vis-à-vis the LECs. To illustrate, the cost of
13 leasing meeting rooms is generally more "variable" (with respect to use) than is
14 owning ones own facilities. Thus the incremental cost of any type of given type
15 of use would be higher for leased rooms.

16

17 Q. IF A NETWORK-BASED COMPANY LIKE BELLSOUTH IS REQUIRED
18 TO SET RATES FOR EACH SERVICE JUST SUFFICIENT TO COVER
19 TSLRIC, WILL THAT COMPANY RECOVER ALL OF ITS COSTS AND
20 EARN A REASONABLE PROFIT?

21

22 A. No, it will not. Service prices which only generate total revenue equal to the
23 sum of all service incremental costs will not cover total cost. As I have dis-
24 cussed, there are shared costs incurred by a company, especially a multiservice
25 network-based company like BellSouth, which are *not* incremental to any one

1 service but which are never the less valid costs of engaging in its business ac-
2 tivities. In total, service revenues must exceed service incremental costs by a
3 margin sufficient to recover all costs of the firm, including the shared costs of the
4 firm. Even if it were determined that some costs presently categorized as shared
5 and common were incremental after all, prices would need to cover those higher
6 costs and contribute toward the remaining (nonincremental) costs. To simply as-
7 sure that each service does not receive a subsidy, by establishing all service
8 prices at, or slightly above, TSLRIC, does not guarantee that a provider recovers
9 all of its costs. BellSouth cannot be said to have priced its services to attain a
10 reasonable profit until its prices are set sufficiently above TSLRIC to recover its
11 shared costs. In short, if BellSouth is required to set service prices at TSLRIC,
12 with no provision for shared costs which must necessarily be incurred to provide
13 business services, then it can not earn a profit on those services.

14
15 Q. CAN YOU ILLUSTRATE THIS POINT WITH A NUMERICAL EXAMPLE?

16
17 A. Yes. Consider products A & B each with an incremental cost per unit of \$.25
18 and with demand of 100 for each service. The incremental cost for the sum of
19 the units demanded is \$25 for A and \$25 for B. However, to produce either A or
20 B the firm must also spend \$50 per period on a right to uses fee; say a computer
21 operating system. In this simple example, the \$50 is a shared cost of these two
22 products. The firm has found a source of economic efficiency: it can produce
23 both A and B spending \$50 once rather than twice (once for each product). Ob-
24 viously, if the prices per unit of both services A and B are forced to equal their
25 incremental costs of \$.25, the firm will face a loss of \$50 per period. Similarly,

1 if the firm is forced to price one of its services at incremental cost, the firm will
2 face a loss unless it can double the contribution margin on its remaining service.
3 The greater the efficiencies of sharing facilities and costs, the larger the shared
4 costs of the firm and the greater the need to price services in excess of LRIC. In
5 other words, such increased efficiencies will increase shared costs but with a
6 more than offsetting reduction in incremental costs. However, these larger
7 shared costs must be recovered for the firm to remain in business.

8

9 Q. ARE SHARED FACILITIES AND SHARED COSTS BENEFICIAL?

10

11 A. Yes, the increased efficiencies from sharing facilities and costs is desirable for
12 the firm and desirable for society as well. However, these costs must be recov-
13 ered from the services which the firm provides; forcing service prices equal to
14 LRIC does not allow for the recovery of the shared costs which are beneficial to
15 society. It is inappropriate to penalize a company for improving its efficiency by
16 not allowing recovery of shared costs. To illustrate this, recall products A and B
17 described earlier where the incremental costs per unit for each is \$.25, the shared
18 cost is \$50, and 100 units of each service are demanded. Consider what occurs if
19 a new machine becomes available which costs \$75 per period but which reduces
20 the incremental cost of both services from \$.25 to \$.10. With demand for A and
21 B at 100 units the new machine offers the opportunity to reduce total costs from
22 \$100 to \$95 (i.e., $\$75 + \$10 + \$10$). Society is clearly better off with the use of
23 the new machine; however, if the company is artificially constrained to price any
24 of its services at incremental cost, it is difficult for the company to make the
25 economic decision which is best for society.

1
2 **COMPETITION TENDS TO DRIVE PRICES TO COSTS (INCLUDING**
3 **SHARED COSTS)**
4

5 Q. DOESN'T COMPETITION DRIVE PRICES TOWARD COSTS?
6

7 A. Yes, it does. However, competition does not necessarily drive prices to incre-
8 mental costs.¹¹ Competition tends to drive prices to a point where all valid busi-
9 ness costs are just recovered, and shared costs are valid costs of business activity.
10 When competition drives prices toward costs, these shared costs are a component
11 of the costs a provider must recover, even in the most competitive of markets.
12

13 Q. SHOULD PRICES FOR INTERMEDIATE SERVICES (I.E., SERVICES NOT
14 SOLD TO END USERS) BE ALLOWED TO MAKE A CONTRIBUTION TO
15 HELP RECOVER THE SHARED COSTS OF A FIRM?
16

17 A. Yes, in a competitive environment, every activity must be allowed to make a rea-
18 sonable contribution to help recover the shared costs of the firm. Many firms
19 strictly offer business-to-business services, i.e., they only offer intermediate
20 products or services to other firms and do not sell to end-users.¹² Many of these
21

22 ¹¹ If a firm only provides a single product, all of its costs are generally included in a calculation of
23 LRIC. Because the majority of the economics literature implicitly or explicitly deals with single prod-
24 uct production, a casual reading of parts of the economics literature would lead one to believe that
25 competition drives prices toward LRIC; this is true only for a single product firm.

24 ¹² Catalogs and directories exist for "business-to-business" products and services; many of these prod-
25 ucts 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, McDonal-Douglas, U.S. Steel, Alcoa Aluminum, or Peabody Coal. However, many other

1 firms may have substantial shared costs which must be recovered from the prices
2 of the intermediate products or services which they sell to other firms. In gen-
3 eral, firms in real markets selling intermediate services have shared costs which
4 must be recovered through the prices of the intermediate products or services
5 which they sell to other firms. It is obvious in these instances that providers
6 must obtain a reasonable contribution from each intermediate service or they will
7 be unable to continue in business.

8
9 **EVEN INTERMEDIATE SERVICES SOLD TO COMPETING PROVID-**
10 **ERS SHOULD NOT BE PRECLUDED FROM MAKING A CONTRIBU-**
11 **TION TOWARD SHARED COSTS**

12
13 Q. IF ONE ASSUMES THAT ONE OR MORE OF THE SERVICES IN THIS
14 PROCEEDING IS A MONOPOLY SERVICE, OR AN ESSENTIAL SERV-
15 ICE, SHOULD THAT SERVICE BE PRECLUDED FROM PROVIDING A
16 REASONABLE CONTRIBUTION TOWARD THE SHARED COSTS OF THE
17 LEC?

18
19 A. No, all services should be allowed to provide a reasonable contribution to the
20 shared costs of the LEC.

21
22

23 firms which one might consider as final goods producers, such as Beatrice Foods, Detroit Diesel, Kel-
24 logg, Phillip Morris, Proctor & Gamble, or Frito Lay, provide relatively few, if any, products to end
25 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.

1 First, it is likely that the reason a service or service element is essential precisely
2 because it is produced most efficiently as a unique element in the supplier's
3 scope of services by sharing costs.¹³ Thus there necessarily would be shared
4 costs to be recovered.

5
6 Second, it is possible that a telecommunications provider would *only* provide
7 services which some customers would consider to be "monopoly" or "essential"
8 services. Such classifications do nothing to make the shared costs of a firm dis-
9 appear or be magically recovered elsewhere. Under such a rule, a LEC which
10 provides some "monopoly" or "essential" services as well as other services,
11 would be faced with attempting to recover most if not all of its shared costs from
12 the "other" services at a time when expanding competition makes it difficult or
13 impossible to obtain such contribution.

14
15 Q. ISN'T IT UNFAIR FOR AN ALEC TO PAY MORE THAN THE TELRIC
16 FOR A SERVICE IF IT BELIEVES THAT IT NEEDS THAT SERVICE TO
17 PROVIDE ITS OWN SERVICES?

18
19 A. No. The incremental cost of services represents only a portion of the total costs
20 of a LEC. LEC shared facilities and shared costs are shared by end-user services
21 by those interconnecting with the LEC, and by those who use the LEC's unbun-
22 dled facilities to which their value added services are appended. This is espe-

23
24 ¹³ An essential facility is a component which cannot be equally efficiently produced, acquired or
25 substituted by another firm. This occurs when one firm has economics of scope which cannot be rep-
licated by another firm. These economies are the very source of shared and common cost which
would not be recovered with prices equal to incremental costs.

1 cially true in the increasingly competitive environment today. Similarly, I expect
2 that each of the components or intermediate services which the ALEC purchases
3 from *other sources* (such as switch providers and other carriers) are priced to
4 provide a reasonable contribution to the shared costs of those other suppliers. I
5 don't expect ACSI to provide services to a reseller at TELRIC even though the
6 reseller may need the services it receives in order to provide its own services. I
7 don't expect ACSI to price its own access services at TELRIC. As a general
8 matter, I expect that an ALEC "needs" most of the facilities and factors of pro-
9 duction they purchase, not just the ones they purchase from a LEC; however, this
10 does not preclude prices for each of these components from generating a contri-
11 bution to its provider.

12

13 Q. DOESN'T AN ALEC HAVE TO RECOVER ALL OF ITS SHARED COSTS
14 FROM END-USER SERVICES?

15

16 A. No. I expect that most ALECs will obtain some combination from both inter-
17 mediate services (including access services to IXCs) and end-user services. The
18 very nature of competition to date, with the terms "alternative access vendor" or
19 "competitive access provider" indicates that providing intermediate services
20 (e.g., access to IXCs) will be a significant service and a source of contribution.
21 To the extent that the ALECs have shared costs, I expect they must obtain con-
22 tribution from both intermediate and end-user services. Every firm must recover
23 its shared costs from the services it provides. For example, to the extent that an
24 ALEC only provides access services to IXCs, it must obtain all of its contribu-
25 tion, to recover its shared costs, from those intermediate services.

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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 ALEC facing a franchise obligation has no such opportunities.

Forcing LECs to price intermediate services at TELRIC would allow ALECs to utilize the shared facilities and shared costs of the LEC ubiquitous network when and where they choose without contributing to the recovery of LEC shared costs. By doing so, the ALEC would avoid incurring the associated shared and common costs. Without a contribution from intermediate services, the LEC's end-user customers must provide *all* of the contribution to cover its shared costs; however, 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 shared 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 fa-

1 cilities if, when, and where they choose, utilizing the facilities of the LECs in all
2 other instances. The reverse is not true at this time.

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

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8 A. The burden on LEC end-user customers of recovering shared costs will con-
9 tinually increase in such a scenario. Assume that BellSouth's total costs are
10 \$100, with \$50 of shared costs and \$25 of incremental costs for residential local
11 service and \$25 of total incremental costs for all other services. Also assume
12 that residential service generates \$25 in revenue, just covering its incremental
13 costs. Initially then, on average each service (other than residential local service)
14 must generate \$2 in contribution for each \$1 of incremental cost; i.e., the other
15 services must provide on average 200% contribution to recover the \$50 of shared
16 costs.¹⁴

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18 For simplicity, also assume that BellSouth initially had 100% market share of the
19 other end-user services in its territory. Later, other end-user service providers
20 enter by purchasing unbundled loops and other unbundled BellSouth facilities
21 which are priced at incremental cost, capture 50% of the end-user market for
22 these other services. BellSouth must now obtain \$4 in contribution above its in-
23 cremental costs (i.e., a 400% contribution) from each of *its* end-user customers.

24
25 ¹⁴For simplicity we ignore demand elasticity in this example without loss of generality.

1 If residential local service is subsidized to some degree, as the economics litera-
2 ture suggests, then the contribution levels must be even higher in each scenario.

3
4 Peculiarly, both the new end-user service providers (ALECs) and BellSouth
5 explicitly or implicitly utilize at least a portion of BellSouth's shared facilities
6 and receive some of the benefits of its shared costs. However, when unbundled
7 components are priced at incremental cost, only BellSouth end-user customers
8 will pay for the benefits of the shared facilities and shared costs. Obviously, this
9 creates an artificial advantage for ALECs and an unsustainable disadvantage for
10 BellSouth.

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

14
15 Q. DOES PRICING UNES AT INCREMENTAL COST PROVIDE AN INCEN-
16 TIVE FOR FACILITIES BASED COMPETITION?

17
18 A. Certainly not. A competing firm would virtually never choose to take the risk of
19 constructing facilities when it has the opportunity to "lease" unbundled compo-
20 nents from the incumbent LEC priced at *incremental cost*. First, the lessor
21 avoids incurring the shared cost altogether. Further the competing provider can
22 lease facilities priced at incremental cost at the time, scale, location and duration
23 of its choosing and it can change any of these factors as market conditions
24 change. Even its incremental costs can be abruptly reduced, unlike the costs to
25 the owners of the leased facilities. Pricing unbundled components at LRIC will

1 essentially guarantee that alternative providers will construct no new facilities to
2 compete with the incumbent LEC. This, of course, is contrary to both economic
3 efficiency and the job-promoting intentions of the Telecommunications Act of
4 1996.

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6 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

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8 A. Yes it does.

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