

P: 52  
or

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September 15, 1995

Mrs. Blanca S. Bayo  
Director, Division of Records and Reporting  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, Florida 32399

RE: Docket No. 950985-TP

Dear Mrs. Bayo:

Enclosed please find an original and fifteen copies of BellSouth Telecommunications, Inc.'s Direct Testimony of Dr. Aniruddha (Andy) Banerjee, Robert C. Scheye, and Alphonso J. Varner in the captioned docket.

A copy of this letter is enclosed. Please mark it to indicate that the original was filed and return the copy to me. Copies have been served on the parties shown on the attached Certificate of Service.

Sincerely,

*Nancy B. White* (AAG)  
Nancy B. White

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*Banerjee* *Scheye* *Varner*

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1           **DIRECT TESTIMONY OF ANIRUDDHA (ANDY) BANERJEE**  
2           **ON BEHALF OF BELLSOUTH TELECOMMUNICATIONS, INC.**  
3           **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**  
4                           **DOCKET NO. 950985-TP**  
5                           **SEPTEMBER 15, 1995**

6  
7 Q.    Please state your name, address, and place of  
8        employment.

9 A.    My name is Aniruddha (Andy) Banerjee. I am a  
10       Senior Consultant with National Economic Research  
11       Associates (NERA), located at One Main Street,  
12       Cambridge, MA 02142.

13  
14 Q.   Please give a brief description of your background  
15       and experience.

16  
17 A.   I earned a Bachelor of Arts (with Honors) and a  
18       Master of Arts degree in Economics from the  
19       University of Delhi, India, in 1975 and 1977  
20       respectively. I received a Ph.D. in Agricultural  
21       Economics from the Pennsylvania State University  
22       in 1985. I have over eight years of experience  
23       teaching undergraduate and graduate courses in  
24       various fields of Economics, and have conducted  
25       academic research that has led to publications and

1 conference presentations.

2

3 Since 1988, I have held various positions in the  
4 telecommunications industry. Prior to my present  
5 position, I have been an economist in the Market  
6 Analysis & Forecasting Division at AT&T  
7 Communications in Bedminster, NJ, a Member of  
8 Technical Staff at Bell Communications Research in  
9 Livingston, NJ, and a Research Economist at  
10 BellSouth Telecommunications in Birmingham, AL.  
11 In these positions, I was responsible for  
12 conducting economic and market analysis, building  
13 quantitative demand models for telecommunication  
14 services, developing economic positions and  
15 strategies, and providing expert testimony support  
16 on regulatory economic matters. In my present  
17 capacity, I provide quantitative and policy  
18 analysis for telecommunications industry clients  
19 principally on matters of concern to local  
20 exchange carriers.

21

22 Q. Please state the purpose of your testimony.

23

24 A. My testimony addresses the appropriate rate  
25 structure for compensation arrangements among

1 interconnecting local exchange carriers. My  
2 testimony will show that the "capacity-based  
3 reciprocal inter-carrier compensation arrangement"  
4 proposed as the rate structure by Mr. Paul  
5 Kouroupas (Direct Testimony, p. 19) and formally  
6 articulated by Dr. Gerald Brock, while an  
7 interesting idea in theory, is not appropriate for  
8 the present reality of local exchange  
9 telecommunications in Florida. Further, I will  
10 argue that BellSouth's proposed arrangement comes  
11 much closer to the economically efficient ideal.

12

13 Q. Please describe the disputed issues of fact that  
14 have thus far prevented an agreement between  
15 Teleport Communications Group ("TCG") and  
16 BellSouth on those compensation arrangements.

17

18 A. As I understand it, the financial arrangements for  
19 interconnection that are in dispute concern the  
20 precise nature of the reciprocal compensation  
21 arrangement between BellSouth and TCG. Both  
22 parties agree that when one carrier's subscribers  
23 terminate calls on the other carrier's network  
24 (i.e., to the other's subscribers), the  
25 originating network must compensate the

1 terminating network. Since this compensation goes  
2 both ways, it is said to be "reciprocal" or  
3 "mutual." According to Mr. Kouroupas (Direct  
4 Testimony, p. 9), TCG also believes reciprocal  
5 compensation to mean "equal" compensation, i.e.,  
6 the same rate of payment in both directions.  
7 Under this arrangement, when the traffic between  
8 networks is "balanced," i.e., roughly equal  
9 volumes of traffic are exchanged, reciprocal  
10 compensation results in approximately zero net  
11 payment by each carrier to the other. In that  
12 situation, the precise structure and level of  
13 interconnection rates are irrelevant. Only when  
14 the traffic between networks is "unbalanced," will  
15 the interconnection rate structure and level be of  
16 consequence (for determining which network  
17 collects more than it pays and how large the net  
18 inflow of interconnection revenue is).

19  
20 TCG expresses a preference for a particular form  
21 of reciprocal compensation that, it believes, will  
22 allow for economically viable local exchange  
23 competition in Florida despite any traffic  
24 exchange imbalance. This form of compensation  
25 requires that the interconnection rate be set in

1       accordance with the cost to the terminating  
2       network of maintaining adequate interconnection  
3       capacity. Both the principle of capacity  
4       cost-based reciprocal compensation and the precise  
5       magnitude of the interconnection charge under that  
6       scheme remain, as of yet, just a proposal by TCG.  
7       In response, BellSouth has proposed applying the  
8       same compensation mechanism that is currently in  
9       place for carriers that terminate switched traffic  
10      on BellSouth's network, namely, the terminating  
11      switched access charge. Any modification of  
12      BellSouth's proposal is expected to depend on the  
13      prior resolution of numerous issues regarding  
14      universal service under local exchange competition  
15      in Florida. Since BellSouth and TCG have reached  
16      agreement on neither proposal, the terms of  
17      compensation under interconnection remain in  
18      dispute.

19

20 Q.   Please describe TCG's proposed form of capacity  
21       cost-based compensation.

22

23 A.   TCG's capacity cost-based compensation proposal is  
24       developed from positions outlined by Dr. Gerald W.  
25       Brock in a series of theoretical papers



1 commissioned by TCG and other prospective ALECs.  
2 In my opinion, the two papers by Dr. Brock that  
3 are most pertinent to the compensation proposal  
4 are titled "Price Structure Issues in  
5 Interconnection Fees" (prepared for TCG, dated  
6 March 30, 1995) and "Interconnection and Mutual  
7 Compensation With Partial Competition" (prepared  
8 for Comcast Corporation, no date given). I shall  
9 refer to these papers below as GWB-1 and GWB-2  
10 respectively. These papers were submitted as  
11 Exhibit PK6 with Mr. Kouroupas' Direct Testimony.

12  
13 In contrast to the minute-of-use (MOU) based  
14 terminating switched access charge (which  
15 BellSouth proposes as the interconnection charge,  
16 pending certain modifications to the existing  
17 universal service mechanism), the Brock-Kouroupas  
18 position is that the interconnection rate should  
19 be a flat monthly fee for the termination of  
20 traffic over a DSL capacity facility. Dr. Brock  
21 argues that:

22 "If traffic is primarily one way,  
23 it may be necessary for the company  
24 that is terminating the traffic to  
25 impose interconnection charges as

1 compensation for the service it  
2 provides to the other company. If  
3 interconnection charges are  
4 imposed, they should be assessed at  
5 the long run incremental cost of  
6 adding capacity. The price  
7 structure should be a capacity  
8 charge per unit of time (as in  
9 private lines), not a minutes of  
10 use charge. A minutes of use  
11 charge causes inefficient calling  
12 choices and investment decisions  
13 and it would not occur in a  
14 competitive market." (GWB-1, p.1)

15  
16 Dr. Brock also claims (GWB-1, p.3) that an  
17 MOU-based interconnection charge would fail on  
18 three counts: (a) it would not be sustainable in  
19 a highly competitive market, (b) it would fail to  
20 attain efficiency and lead to incorrect  
21 investment signals, and (c) while it served a  
22 purpose in the past as an allocator for fully  
23 distributed costing under regulated monopoly  
24 conditions, it is not appropriate for the emerging  
25 competitive market. In place of such an MOU-based

1 interconnection charge, Dr. Brock proposes first  
2 determining the capacity needed for peak traffic  
3 from one carrier's network to the other's, and  
4 then seeking to recover the cost of that capacity  
5 through flat monthly pricing. The price is  
6 related to peak-traffic capacity (i.e., the number  
7 of calls that can be terminated at any given time  
8 during the peak period), not to the duration of  
9 usage. Moreover, the price is based on the  
10 incremental cost solely of peak-traffic capacity  
11 because the incremental cost of off-peak traffic  
12 is essentially zero.

13  
14 Dr. Brock emphasizes (GWB-1, p.5) that the  
15 capacity cost-based interconnection charge is only  
16 relevant when the traffic exchange between two  
17 LECs is unbalanced. When the traffic does  
18 approach balance, he states, the two carriers will  
19 find it in their mutual interest to terminate each  
20 other's traffic on a "sender keep all" or "bill  
21 and keep" basis (i.e., no explicit terminating  
22 charge assessed on the originating network, but a  
23 charge by the originating network to its own  
24 subscribers whenever they call subscribers on  
25 other networks).

1

2 Q. What is your opinion of the principle of capacity  
3 cost-based compensation, as proposed by Dr. Brock?

4

5 A. Dr. Brock's analysis of capacity cost-based  
6 compensation conforms to the principle that  
7 economic efficiency is maximized by adopting a  
8 price structure that corresponds to the underlying  
9 cost structure. My main disagreement with Dr.  
10 Brock concerns the nature of the interconnection  
11 cost structure: do network costs of  
12 interconnection vary only with the capacity of the  
13 interconnecting facilities (as Dr. Brock claims),  
14 or do they also vary with actual peak-period  
15 demand? I believe that those costs depend on both  
16 capacity and actual usage in the peak traffic  
17 period.

18

19 Q. Please explain your disagreement with Dr. Brock's  
20 depiction of the cost structure under  
21 interconnection.

22

23 A. Dr. Brock's analysis assumes that peak-period  
24 capacity (a fixed cost) alone matters for the  
25 provision of interconnection. If all that

1       mattered for providing interconnection was the  
2       installation of a dedicated channel or trunk for  
3       exchanging traffic between two networks, this  
4       assumption would be acceptable. However, that is  
5       not how interconnection is likely to occur in the  
6       real world.

7  
8       Interconnection involves the provisioning of  
9       switches, ports, software, and other equipment,  
10      not just trunks. These facilities are typically  
11      installed and configured to carry traffic between  
12      different points of origination and termination,  
13      and also traffic of many different kinds. In  
14      other words, the use (not to be confused with the  
15      costs) of the facilities is likely to be shared  
16      among both different users (carriers) and  
17      different services. For example, besides  
18      providing interconnection, the facilities may be  
19      used to switch or terminate calls among the LEC's  
20      own subscribers. Inter-exchange carriers (IXCs)  
21      and ALECs alike may use the same facilities for  
22      providing different types of services. In these  
23      circumstances, the cost of providing  
24      interconnection will definitely vary with  
25      peak-period shared usage of the facilities. In

1 other words, the cost of two additional minutes of  
2 use during the peak period will be roughly twice  
3 the cost of one additional minute in the peak  
4 period. Given this fact, the cost structure for  
5 facilities that will most likely be used by the  
6 LEC to provide interconnection will have two  
7 components: (a) the capacity or fixed cost (as  
8 Dr. Brock suggests) based on peak-period traffic,  
9 and (b) the usage-based or variable cost arising  
10 from the shared use of facilities. The omission  
11 of the latter component is a serious source of  
12 error in Dr. Brock's analysis and recommendation  
13 of a rate structure for interconnection. By  
14 leaving out an important element of cost, TCG can  
15 now seek an interconnection charge that is  
16 artificially below the true cost to BellSouth of  
17 providing interconnection. I will return to this  
18 issue later in my testimony when I consider the  
19 issue of the appropriate rate structure.

20

21 Q. What other specific problems do you see with Dr.  
22 Brock's analysis?

23

24 A. It presents an oversimplified view of the demand  
25 circumstances under which interconnection will

1 occur among networks in reality. Dr. Brock's  
2 analysis, particularly that outlined in GWB-2, is  
3 replete with indefensible and unrealistic  
4 assumptions about demand. First, he examines  
5 several cases of compensation arrangements among  
6 networks -- some competitive and others  
7 monopolistic -- in which subscribers are assumed  
8 to have identical demands for calls to other  
9 subscribers (including to those on other  
10 networks). The basic lesson he draws is that when  
11 traffic flows between networks are unbalanced,  
12 only an interconnection requirement accompanied by  
13 a cost-based reciprocal compensation scheme can  
14 minimize the market power of the monopolistic  
15 carrier. This "result" is offered in support of  
16 the basic principle of a cost-based  
17 interconnection charge. GWB-1 establishes that  
18 the cost in question should be that of the  
19 peak-period capacity.

20

21 I find this conclusion troublesome for the  
22 following reasons. I believe that no matter what  
23 the state of market shares is today, or will be in  
24 the early stages of local exchange competition, it  
25 is very likely that traffic volumes among

1 BellSouth and ALECs will move toward balance in  
2 the long run. Where market shares will  
3 eventually stabilize is hard to say but, if the  
4 history of the telecommunications industry is any  
5 guide, entering ALECs could gain significant  
6 market share by concentrating on subscribers who,  
7 from the standpoint of these ALECs, represent the  
8 fastest and surest way to revenue growth and  
9 market share gain. What matters is not whether  
10 one network has literally more subscribers than  
11 another, but whether one network -- even the  
12 "smaller" one by share of subscriber lines -- has  
13 the "better quality" subscribers. If an entrant  
14 ALEC is able to attract away from BellSouth,  
15 subscribers who have the highest ratio of  
16 terminating-to-originating traffic (i.e., those  
17 who present the greatest opportunities for earning  
18 terminating interconnection charges), then  
19 relative market share of subscriber lines alone  
20 will not accurately portray the entrant ALEC's  
21 actual gain in the market. To take this argument  
22 further, if and when traffic volume between  
23 BellSouth and the ALEC approaches balance, and the  
24 ALEC has the better quality customers (as defined  
25 above), we could very well expect no offsetting



1        payments (as Dr. Brock implies in GWB-1) but  
2        significant net payment flows from BellSouth to  
3        the ALEC.  
4  
5        The lesson from this is that Dr. Brock's  
6        assumption of identical subscribers is definitely  
7        not innocuous. Such an assumption allows him to  
8        build a convenient case in favor of TCG's  
9        position, but failure to incorporate the  
10       real-world differences in subscriber quality and  
11       past market strategies of entrants in to his  
12       analysis appears to have influenced Dr. Brock's  
13       results. Because of this, I believe Mr. Kouroupas'  
14       example (Direct Testimony, pp. 11-12) -- that a  
15       competitor that has only 1% of lines to  
16       BellSouth's 99% would be required to terminate  
17       virtually all of its subscribers' calls on  
18       BellSouth's network with very little return  
19       traffic -- is grossly exaggerated and misleading.  
20       At the very least, Dr. Brock and TCG should submit  
21       a formal economic demonstration that their  
22       "results" are robust under all circumstances,  
23       i.e., do not change when real-world patterns of  
24       (and differences in) subscriber demand are  
25       introduced into the analysis.

1  
2 My second major question concerns the universal  
3 applicability of Dr. Brock's results when the  
4 different networks do not offer identical  
5 services. Differences in the terms and conditions  
6 under which services are offered by carriers to  
7 their own subscribers can affect the demand  
8 schedules of those subscribers.  
9  
10 Third, Dr. Brock seems to make the implicit  
11 assumption -- erroneously, in my opinion -- that  
12 demand depends solely on the service price. This  
13 assumption shows up in GWB-2 in which he draws the  
14 analogy between a hypothetical market that  
15 consists of a mix of monopolistic and competitive  
16 carriers and the real-world international market  
17 in which certain countries offer outbound services  
18 under competitive conditions (e.g., the U.S.) and  
19 other countries offer those services through  
20 government monopolies. His inference that there  
21 will typically be relatively more outbound calls  
22 from countries with competitive carriers (because  
23 the price of calling in such countries will be  
24 lower) would be plausible only if one believes  
25 that price alone is the determinant of

1 subscribers' calling patterns. It is well known  
2 that a whole host of non-price factors can  
3 influence the demand characteristics of  
4 subscribers. For example, higher income levels,  
5 greater access to telecommunication services, and  
6 greater contact with foreign countries -- all  
7 manifestations of greater affluence -- may be just  
8 as important in shaping demand in certain  
9 countries as price (especially so when price  
10 elasticities of demand are low or the cost of  
11 using telecommunication services is a relatively  
12 small share of the typical subscriber's budget).  
13 That these relatively more affluent countries tend  
14 also to be market-driven in which competitive  
15 carriers deliver telecommunication services makes  
16 it easy, in my opinion, to overlook the non-price  
17 characteristics of demand and to overly emphasize  
18 the importance of price alone.

19  
20 For all of these reasons, I believe that Dr.  
21 Brock's results are in large part an artifact of  
22 his oversimplified theoretical model that fails to  
23 consider real-world demand and market  
24 circumstances. While I agree with the basic  
25 principle that economic efficiency is maximized in

1 a competitive market by basing prices on  
2 underlying costs, I do not agree with Dr. Brock's  
3 depiction of either the cost structure under  
4 interconnection or of subscriber demand.

5

6 Q. Both Mr. Kouroupas and Dr. Brock offer the example  
7 of a rental car company in support of capacity  
8 cost-based pricing. What is your evaluation of  
9 this example?

10

11 A. The rental car example, in which rental car  
12 companies tend to charge for time rented rather  
13 than for miles driven, supposedly demonstrates the  
14 wisdom of pricing on the basis of capacity cost  
15 than on usage cost. This conclusion is driven  
16 entirely by Dr. Brock's assumption -- clearly  
17 erroneous, in my opinion -- that "... the real  
18 costs are related to the time the car is rented  
19 rather than to the number of miles" (GWB-1, p. 7).  
20 This assumption is only tenable if it can also be  
21 assumed that the cost of wear and tear -- which is  
22 likely to vary in proportion to the number of  
23 miles driven -- is insignificant relative to the  
24 time cost of the rental. If miles-related wear  
25 and tear cost can be significant, however, a

1 rental car company that charges only for time  
2 rented would encourage over-use of its cars, even  
3 by customers who would ordinarily not be inclined  
4 to drive long distances. This form of over-use  
5 can quickly degrade the quality of service  
6 provided by the rental cars, and the rental  
7 company will have no provision to compensate for  
8 that degradation. High mileage drivers would rent  
9 exclusively from rental companies that have no  
10 mileage charges, and the average mileage per day  
11 for those companies would increase. That is why  
12 some rental car companies combine a per-day or  
13 per-week charge with a mileage charge (typically  
14 with an initial free-miles allowance).

15  
16 The analogy drawn from this example to the  
17 capacity cost-based pricing of interconnection  
18 suffers from a similar plight. The analogy does  
19 not work because Dr. Brock ignores completely the  
20 fact that the LEC's cost of terminating traffic  
21 from the competing LEC will also vary with actual  
22 peak-period usage as long as the facilities in  
23 question are shared among various users.

24

25 Q. So, as with the rental car example, could a

1 capacity cost-based interconnection charge lead to  
2 inefficient prices and provisioning?

3

4 A. Yes. If the interconnection charge is based  
5 solely on capacity cost, then competing LECs would  
6 have the incentive to send as much traffic as  
7 possible down the channel capacity installed.  
8 That is, the amount of capacity installed would  
9 likely be below the efficient level at usage-based  
10 interconnection prices. The most likely  
11 consequence of such "trunk-stuffing" would be a  
12 degradation in the quality of calls that would be  
13 terminated on the incumbent LEC's network. It is  
14 not clear, a priori, whether this degradation of  
15 service quality should be blamed on the carrier  
16 that originates the call or the carrier that  
17 terminates it. Dr. Brock's own principle that the  
18 price structure must mirror the cost structure in  
19 a competitive market implies that there should be  
20 a usage charge for interconnection as long as the  
21 cost of interconnection varies with peak-period  
22 usage.

23

24 Q. What, in your opinion, is the optimal  
25 interconnection rate structure?

1

2 A. The optimal rate structure for interconnection  
3 must have two features. First, it must reflect  
4 the actual cost structure that will characterize  
5 the provisioning of interconnection by BellSouth.  
6 This means recognizing the role of both capacity  
7 and usage costs (i.e., both fixed and variable  
8 costs) when facilities, especially during peak  
9 use, are shared among users and services.

10

11 Second, it must reflect the market structure in  
12 which interconnection will be provided. If  
13 competition is the proper model of that market  
14 structure, then basing the rate structure on the  
15 underlying true cost structure is economically  
16 efficient and maximizes social welfare. Even in  
17 that market structure, however, BellSouth, as the  
18 provider of interconnection services, must have an  
19 opportunity to earn normal profits (a feature  
20 completely consistent with the economic theory of  
21 competition) and contributions toward the  
22 additional costs of special obligations that are  
23 borne uniquely by it.

24

25 Viewing the installation of peak-period capacity

1 as a fixed cost of serving subscribers, a two-part  
2 rate structure that combines a flat monthly charge  
3 with an MOU-based charge is optimal. The optimal  
4 rate structure recognizes and reflects the  
5 underlying two-part cost structure comprising both  
6 a fixed and a variable cost. The level of rates  
7 that may be set within this overall structure will  
8 clearly depend on how much fixed and variable  
9 costs (including normal profits) need to be  
10 recovered under competitive operation. In  
11 addition, those rates must provide the opportunity  
12 for BellSouth's need to also earn contributions  
13 toward the costs of its special obligations. The  
14 ultimate test of sustainability of BellSouth's  
15 rates within this structure will come from the  
16 market itself and from the resolution of how the  
17 costs of BellSouth's special obligations -- past,  
18 present, and future -- will be paid for.

19 Accordingly, I view Dr. Brock's recommendation  
20 (and TCG's price structure proposal) as seriously  
21 deficient from the standpoint of both economic  
22 efficiency and market sustainability.

23

24 Q. How does BellSouth's proposed rate structure  
25 compare to the optimal rate structure?



1

2 A. BellSouth's proposed rate structure compares  
3 favorably with the optimal rate structure. To  
4 arrive at this conclusion, I considered a series  
5 of recent related actions by BellSouth as the  
6 process of bringing local exchange competition to  
7 Florida has gone forward.

8

9 First, in compliance with the Florida Public  
10 Service Commission's Orders dated January 9, 1995,  
11 and June 6, 1995, (Docket No. 921074-TP),  
12 BellSouth filed a Local Transport Restructure  
13 Tariff on September 5, 1995. Under this tariff,  
14 BellSouth will charge IXCs that use dedicated  
15 transport facilities a flat monthly charge, while  
16 continuing to assess an MOU-based charge for  
17 traffic-sensitive functions like local switching.

18

19 Second, in a recent proposal in Florida (see  
20 Testimony of A. J. Varner in Docket No.  
21 950696-TP), BellSouth called for a two-part rate  
22 structure for the interim universal service  
23 funding mechanism. Under this proposal (see, in  
24 particular, Alternative 1 on pp. 16-17 of Mr.  
25 Varner's testimony), while an MOU-based access

1 charge will continue to be assessed to IXCs that  
2 terminate calls on BellSouth's network, the  
3 contributions toward the (largely fixed)  
4 facilities costs of BellSouth's special  
5 obligations that were previously included in the  
6 access charge will now be recovered through flat  
7 monthly charges to all other telecommunications  
8 carriers in Florida in proportion to the retail  
9 revenues earned by their respective Florida  
10 operations.

11  
12 BellSouth's proposed local interconnection  
13 structure is based on the terminating switched  
14 access structure as envisioned by these proposals.  
15 Therefore, taken together, these actions recognize  
16 the fact that a two-part price structure with a  
17 fixed part dedicated to the recovery of  
18 non-traffic-sensitive (NTS) costs and a variable  
19 part dedicated to the recovery of  
20 traffic-sensitive (TS) costs is the economically  
21 most efficient structure. The subscriber line  
22 charge (SLC) instituted by the Federal  
23 Communications Commission is a good example. The  
24 purpose behind the SLC (and increases in its level  
25 since 1984) was to pay for the NTS costs of the

1 inter-state portion of the public switched  
2 network, thereby allowing a dramatic reduction in  
3 the MOU-based access charge itself. The latter  
4 charge, however, is still being used to recover a  
5 portion (albeit smaller) of those NTS costs. Were  
6 the SLC to be raised to fully pay for all  
7 inter-state NTS costs, the usage-based charge  
8 would be even lower than the MOU-based switched  
9 access price that, historically, BellSouth has  
10 charged. This is simply because the usage-based  
11 price would then be relieved of the burden of  
12 recovering NTS costs as well.

13

14 On the matter of interconnection itself, what  
15 BellSouth is proposing is akin to the established  
16 practice of using a usage-based charge to recover  
17 both non-traffic-sensitive (NTS) and usage or  
18 traffic-sensitive (TS) costs. Until such time as  
19 a fixed part charge is incorporated into  
20 BellSouth's interconnection tariff (as has been  
21 done already in its universal service funding  
22 proposal and local transport restructure tariff),  
23 I expect that BellSouth's terminating access  
24 charge proposal for interconnection will continue  
25 to do "double duty," i.e., recover both fixed and

1       variable costs.  
2  
3       Despite this double burden, however, the MOU-based  
4       charge will successfully recover both fixed and  
5       variable costs. Even though it is not the optimal  
6       two-part rate structure that I have described  
7       above, BellSouth's rates are being designed to  
8       recover the costs that correspond to BellSouth's  
9       true cost structure. Its present interconnection  
10      rate structure is, at least, a step in the right  
11      direction.

12  
13      In contrast, the TCG-proposed capacity cost-based  
14      charge ignores the need to recover the usage-based  
15      or variable costs that will clearly be important  
16      under shared use of facilities. For justifying  
17      their proposed rate structure, TCG and Dr. Brock  
18      should have the burden of showing that (a) no  
19      shared use of BellSouth's facilities will occur,  
20      and (b) all interconnection traffic between  
21      BellSouth and TCG will be exchanged and switched  
22      on a dedicated basis.

23  
24      BellSouth's proposal of charging terminating  
25      switched access to the interconnecting ALEC is

1       also justified when one considers the possibility  
2       of rate arbitrage.    The costs of switched access  
3       and call termination are generally the same for  
4       both local and toll calls, even though the demand  
5       for the two types of calls may be quite different.  
6       If BellSouth is unable to tell whether the call  
7       from an ALEC's network that it is terminating is a  
8       toll call or a local call, the same rate for  
9       terminating both types of call (given that they  
10      have similar costs) will prevent rate arbitrage.  
11      Otherwise, if the rates are different, the  
12      interconnecting ALEC could seek to have every call  
13      terminated as the type of call that has the lower  
14      terminating charge.

15

16 Q.   What effects could BellSouth's special obligations  
17       (e.g., universal service provider, carrier of last  
18       resort) have on the rate structure for  
19       interconnection?

20

21 A.   Special obligations impose costs on BellSouth that  
22       are in addition to those of providing  
23       interconnection to other networks.  Traditionally,  
24       BellSouth's service prices have embedded  
25       contributions to pay for these additional costs.

1 BellSouth's rate structure for interconnection  
2 will undoubtedly need to include this contribution  
3 element as long as the special obligations  
4 continue. Therefore, the design of a sustainable  
5 rate structure under competition will depend upon  
6 the resolution of many issues that surround  
7 BellSouth's special obligations. These include,  
8 but are not limited to, issues of sizing the  
9 universal service program in Florida, determining  
10 how funds are raised and disbursed for that  
11 program, determining how special obligations would  
12 be shared by LECs and ALECs under local exchange  
13 competition, and evaluating the role of  
14 contributions embedded in service prices for the  
15 purpose of funding universal service. Without  
16 thinking comprehensively through these issues, any  
17 reflexive adoption of TCG's proposal for  
18 interconnection rates can seriously damage  
19 BellSouth's ability to compete effectively under  
20 local exchange competition, and prove injurious to  
21 the competitive process itself.

22

23 Q. Please summarize your testimony.

24

25 A. TCG and Dr. Brock's proposed rate structure is

1 based only on a proper determination of the "scale  
2 of interconnection" required, i.e., it leads to  
3 the proper sizing of the fixed costs associated  
4 with providing interconnection. However, it  
5 completely ignores the true cost structure that  
6 BellSouth will likely face when providing  
7 interconnection service. It does not even  
8 recognize the similar cost structure that  
9 BellSouth faces today for providing switched  
10 access to IXCs. Only in certain highly unlikely  
11 circumstances, can BellSouth's usage costs during  
12 the peak-period be expected to be negligible or  
13 non-existent. Whenever interconnection facilities  
14 -- switches, trunks, and ports -- are shared by  
15 multiple carriers on behalf of their subscribers,  
16 costs will remain proportional to peak usage or  
17 MOUs. In these circumstances, the cost of both  
18 capacity and usage must be recovered by the price  
19 actually set for interconnection. That, however,  
20 is a rate level issue. The optimal rate structure  
21 will levy that rate in the most economically  
22 efficient way possible. On that criterion, the  
23 two-part charge is theoretically optimal.  
24  
25 Recent actions in Florida by BellSouth (universal

1 service funding proposal and local transport  
2 restructure tariff) clearly signal its willingness  
3 to embrace the optimal two-part rate structure.  
4 For pricing interconnection, BellSouth's proposal  
5 of a usage-based charge (which, in reality, does  
6 the double duty of recovering both fixed and  
7 variable costs) is not yet the optimal two-part  
8 rate structure. It remains, however, capable of  
9 recovering the cost of providing interconnection  
10 and a contribution to defray the cost of  
11 BellSouth's special obligations. In contrast, not  
12 only is the TCG-proposed capacity cost-based rate  
13 structure deficient in its failure to recognize  
14 the variable costs of shared peak-period usage, it  
15 is also incapable of recovering all the costs and  
16 contributions associated with interconnection  
17 service. If the TCG proposal is accepted, the  
18 result will be artificially depressed rates that,  
19 while clearly in TCG's interest, will seriously  
20 undermine BellSouth's ability to recover the  
21 legitimate costs of providing interconnection,  
22 earn a fair return, and defray the costs of its  
23 special obligations.

24

25 Q. Does this end your testimony?



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2 A. Yes.

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