BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

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In re: Investigation into Pricing of Unbundled Network Elements

Docket NO. 990649-TP

DIRECT TESTIMONY OF ERIC MCPEAK ON BEHALF OF Broadslate Networks, Inc. Cleartel Communications, Inc. Florida Digital Network Network Telephone Co. ("The Coalition") July 31, 2000

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1 I. INTRODUCTION

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Q. Please state your name and business address for the record.

A. My name is Eric McPeak. My current business address is 111 East
 Spring Street, El Dorado Springs, MO 64744.

7 Q. By whom are you employed and what is your position?

8 A. I am employed by QSI Consulting and my current position is Director of
9 Technical Services.

10 Q. Please summarize your professional experience.

I started my telecommunications career in 1989 as a material purchasing 11 Α. specialist for Contel of Missouri. Contel of Missouri was an incumbent 12 local exchange carrier managing numerous exchanges throughout rural 13 14 portions of the West and Midwest before it was purchased by GTE North 15 incorporated. My duties at Contel included purchasing all major and 16 minor materials for approximately twenty (20) telephone exchanges in the 17 Southwest District. I also supervised the distribution of all materials for 18 company construction, contract construction, and splicing crews for the 19 District. I worked directly with Engineering and Network Provisioning on 20 all outside plant applications for both maintenance and new construction 21 projects. Beginning in May 1990, I served Contel as an outside plant 22 service technician in the customer services division. My duties included 23 installing outside construction facilities; splicing copper and fiber cable; 24 trouble shooting aerial, buried and underground cable problems; installing

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and repairing residential and business services, both analog and digital 1 loop carrier systems, key system and PBX. I continued the same 2 responsibilities as an employee for GTE of Missouri until 1997. From 3 1997 to 1999, I held the position of President of Integrated 4 Communications Corporation (ICC). My duties included managing the 5 installation and repair of PBX and key systems applications, conducting 6 cellular and paging sales and service, and developing comprehensive 7 business planning in both engineering and competitive local service 8 engineering applications. In March of 1999 my current employer, QSI 9 Consulting, purchased ICC. I am currently employed as the Director of 10 QSI's Technical Services Division, where I provide telecommunications 11 companies with advice and counsel for direct network planning, 12 management and cost-of-service support. My specific areas of expertise 13 include network engineering, facility planning, project management, 14 business system applications, incremental cost research and issues 15 related to the provision of unbundled network elements, including local 16 17 loops. Please summarize you educational background. 18 Q. I completed two years of course work in Electrical Engineering at 19 Α. Southwest Missouri State University in Springfield, Missouri. In addition, I 20 completed numerous industry training courses provided by Nortel 21

22 Networks, Contel Telephone and GTE including training courses at the

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Contel Training Center, St. Charles, Missouri in outside plant construction 1 practices, major and minor cable splicing (copper and fiber), installation 2 and repair of residential and business telephone service, key and PBX 3 installation, coin telephone installation and all OSHA safety practices. 4 Q. What is the purpose of your testimony? 5 This testimony will address the proper times and methods associated with 6 Α. 7 all activities involved in the conditioning of loops for xDSL services. I will also be addressing the proposed rates submitted by BellSouth in this 8 9 proceeding. 11. xDSL Background 10 11 12 13 Q. Please define loop conditioning and explain why loop conditioning is 14 required within the network. "Loop Conditioning" is the process wherein the electrical characteristics of 15 Α. a copper pair are altered, generally by adding equipment, so that the 16 characteristics of the loop are consistent with a given service. Recently, 17 however, with the onset of xDSL services, the term "loop conditioning" has 18 been expanded to incorporate the process of removing these same pieces 19 of equipment to return a copper pair to its original, unaltered state. This 20 type of "loop conditioning" consists of the removal of load coils, repeaters 21 and bridge taps from the copper loop. In order for advanced services 22 such as xDSL to operate within the network, copper loops have to meet 23 certain specifications. Certain copper facility applications that exist in the 24

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network, which I will refer to as "disturbers", affect the copper loop in a 1 2 way that will not allow high bandwidth services such as xDSL to work properly. Load coils, bridge taps and repeaters all fall within the 3 "disturber" category. The disturbers are actually designed to assist in the 4 5 operation of voice grade services within the network. Advanced services 6 such as xDSL operate at a much higher bandwidth than do voice services and therefore require much different copper facility specifications. 7 What is DSL? 8 Q. DSL is a technology initially developed to increase the digital transmission 9 Α. speeds over traditional copper-based loop facilities. ADSL, or 10 asynchronous digital subscriber line, is a member of a larger family of 11 technologies generally referred to as xDSL. The "x" in xDSL is generally 12 used as a placeholder to identify more specific derivations of the digital 13 subscriber line technology (i.e.HDSL -high speed DSL; SDSL -14 synchronous DSL VDSL – very high speed DSL; UDSL- universal DSL; 15 and RDSL – rate adaptive DSL). Generally, xDSL technologies use a 16 system of digital modems placed on each end of a transmission medium 17 (generally two or four copper wires) to transmit digital information at rates 18 far exceeding those typically achieved by other types of copper loop 19 transmission. 20 xDSL technologies support a number of consumer data applications 21 including wide area networking for purposes of telecommuting as well as

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1		high-speed internet access that dwarfs the speed achieved by a standard
2		56Kbps modem. In sum, advanced services drive ordinary telephone
3		lines at speeds far greater than conventional dial-up modems, and allow
4		consumers to enhance their Internet use and maximize efficiencies and
5		productivity. The efficiencies and improvements offered by advanced
6		services allow for the performance of a variety of tasks that make life
7		easier and more productive. A few examples of ways in which consumers
8		can take advantage of advanced services include the following:
9 10		(1) linking multiple personal computers to single digital subscriber line connections for a fully "networked" home office;
11 12 13		(2) downloading software and documents from the Internet at extremely high rates of speed; and
14		(3) conducting stock trades in real time fashion.
16	Q.	How does xDSL work?
17	Α.	Generally speaking, xDSL modems are placed at each end of a non-
18		loaded copper loop to transmit a digital data stream between the
19		customer's premise and a packet switched network node that resides in
20		the local exchange carrier's central office ("C.O."). Using complex digital
21		compression techniques, ADSL supports substantial bandwidth on the
22		"downstream" channel (i.e. from the packet switched network to the
23		customer's premises) while supporting a more modest transmission
24		capacity on the "upstream" channel (i.e. from the customer's premises to
25		the C.O.). This "asynchronous" bandwidth capability separates ADSL
26		from other xDSL technologies like HDSL which provides T1 transmission

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1		(1.544 Mbs) in both directions. ADSL is engineered to overlay existing
2		analog telephone service and basic rate ISDN ¹ services by avoiding the
3		use of frequencies in the range of 0 to 50 kHz where POTS and ISDN
4		generally reside within the transmission medium. Stated another way, a
5		customer can realize the high-speed data capabilities of the ADSL
6	·	technology while at the same time continuing to use the same telephone
7		line for traditional voice services.
8	Q.	Do the characteristics of the copper pairs used as a transmission
9		medium for the xDSL technology impact its efficiency?
10	Α.	Yes, they do. In fact, xDSL technologies (and ADSL in particular) are
11		limited in the extent to which they can utilize existing copper loops that
12		exceed a particular length (i.e. it is generally accepted that using a loop in
13		excess of 18,000 feet for xDSL transmission is likely to result in
14		substantial service degradation or even an unacceptable bit error ratio).
15		Likewise, individual characteristics beyond the simple length of the loop
16		can impact the quality (i.e. bit rate or bit error ratio) of the xDSL
17		transmission. For example, an excessive deployment of bridged tap, load
18		coils or repeaters within the loop can render a loop unusable for xDSL
19		transmission.

ISDN (Integrated Software Defined Network) is another family of technologies that attempts to increase the bandwidth available over copper loop facilities. ISDN services generally use central office switching software (as opposed to packet switching equipment) to manage the digital data stream between the central office and the customer's premises.

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1	Q.	How does the presence of load coils, bridged tap and/or repeaters
2		degrade the quality of the ADSL transmission?
3	Α.	Generally speaking, these disturbers interfere with the ability of the two
4		xDSL modems to communicate effectively. This inability to communicate
5		effectively can either rob the system of potential data transmission speed
6		(by reducing the amount of data that can be transferred per second), or it
7		can degrade the transmission to an extent where the bit error ratio is
8		unacceptable (i.e. the ratio of legitimate "bits" of data received by the
9		device at either end compared to erroneous "bits" is so high that the
10		transmission is rendered unusable). I will describe how each "disturber"
11		affects the xDSL transmission in greater detail below.
12	Q.	What is bridged tap?
13	Α.	Bridged tap is the result of an outside plant deployment strategy which
14		attempts to maximize the use of a local exchange carrier's loop
15		investment. Local exchange carriers generally provision loop facilities in
16		three fairly discrete segments: (1) feeder or F1; (2) distribution or F2 and
17		(3) drop. Feeder facilities generally extend from a central location which
18		houses the exchange's central office switch. Feeder facilities are
19		generally characterized by larger cables (housing anywhere from 900 to
20		2400 copper pairs) that carry traffic to a defined point within the exchange
21		where they are cross-connected (usually via a feeder distribution interface

"FDI") to the distribution portion of the network. It is the distribution portion

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1	of the network that then spreads out across a given defined area of the
2	exchange (generally referred to as a distribution area or "DA") to extend a
3	given loop to a particular neighborhood or group of customer premises.
4	The drop portion of the network then extends the distribution cable
5	(generally terminated at a drop pedestal or an aerial equivalent within a
6	neighborhood) to a given customer premise. Diagram 1 below provides a
7	simplified look at the these three loop components.
8	To better understand the use of bridged tap, we must look more closely at
9	the distribution portion of the network. Each distinct distribution route from
10	the FDI is generally referred to as a "tap." A given tap is used to connect
11	a number of active customers to the feeder network to complete a circuit
12	from the customers' premises to the central office. Each tap may
13	incorporate a number of different splice points wherein the distribution
14	cable is tapered to smaller cables that branch out to different
15	neighborhoods.





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Although distribution cables generally grow smaller as we move from the 2 FDI to the customer premise, the network is generally engineered to 3 accommodate a larger number of distribution cables than feeder cables. 4 Generally, there could be several distribution cables located at the FDI 5 that are being fed by one feeder cable. This results from engineering the 6 network such that individual feeder pairs can be provisioned to different 7 portions of the distribution network as needed, without the need to 8 provision additional distribution pairs. This is accomplished by two 9 methods: (1) the cross-connect capability of the FDI itself (i.e. the ability to 10 11 cross-connect a single feeder pair with any number of distribution pairs); an, (2) bridged tap. 12

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1 Q. Please explain bridge tap in more detail.

Outside plant engineers generally design the network where a single 2 Α. distribution pair is actually connected to at least two downstream 3 distribution pairs that may branch in two different directions. In other 4 words, the tap is "bridged" such that it can provide service in either of two 5 geographic areas (generally it is "bridged" to provide either an east or west 6 circuit). This is accomplished generally within a cross-connect pedestal 7 wherein a single distribution pair is simply cross-connected to two 8 downstream pairs. Of course, a drop is attached to only one of these 9 bridged pairs to provide service to an individual customer, but the "bridge" 10 remains in place so if the customer leaves, that same distribution pair 11 could be used in another geographic area to meet future demand. This 12 "bridged tap" architecture allows the local exchange carrier to maximize 13 the flexibility of its network without the expense that would be required to 14 engineer direct circuits (i.e. a single pair reaching from the C.O. to each 15 16 customer premises). Diagram 2 below depicts a cable pair that "appears" at two different locations using the "bridged" architecture as described 17 18 above.

Diagram 2

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In Diagram 2 above, Cable Pair 112 is "bridged" such that it could be used to provide service to Customer A or Customer B. In this example the pair is connected to a drop that serves Customer A; however, the "bridge" allows it to be used just as easily to provide service to Customer B (though it can provide service to only one of those customers at any one time).

7 Q. Why does bridged tap degrade the quality of an xDSL transmission?

8 A. Simply put, bridged tap increases the electrical loop length of the circuit in 9 question. An electrical signal traversing cable pair 112 will actually travel 10 the entire distance of the pair extending to both customer A and

11 customer B, thus increasing the resistance and loss associated with the

1 entire loop. This extended electrical loop length significantly reduces the efficiency of the ADSL transmission. 2 What are load coils? 3 Q. Load coils can be described as inductance coils used to improve the 4 Α. transmission performance of the voice band channel, thus increasing the 5 allowed loop length for acceptable voice transmission. Generally 6 speaking, a load coil on a loop "amplifies" a given analog signal by 7 boosting the entire voice band channel so it can be "heard" on loops 8 extending farther from the original point of analog transmission (generally 9 the central office switch). 10 Can a loaded loop effectively accommodate an xDSL signal? 11 Q. No, it cannot, xDSL technology operates in the high speed frequency 12 Α. 13 range of a copper loop. Load coil inductance alters the rate at which data is transmitted through the loop, and creates unacceptable fluctuations in 14 bit rate speed and quality thereby degrading the overall performance of 15 the transmission. Stated differently, the load coil's general purpose of 16 "amplifying" an analog signal is not conducive to the digital communication 17 that occurs between the two ADSL modems. By electronically amplifying 18 the digital signal, the load coil's inductance alters the signal in a manner 19 that is not recognized by the ADSL modem at the other end of the 20 21 communication pathway.

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PAGE 13

1 **Q**.

What is a repeater and what is it used for?

Repeaters are used in a number of different scenarios in provisioning Α. 2 outside loop plant. Repeaters are either Voice Frequency Repeaters 3 ("VFRs") or digital repeaters. Voice Frequency Repeaters can be 4 categorized in two classes: Central Office-Mounted and Field Mounted. 5 Central Office-Mounted repeaters are required on customer loops when 6 the 1000 Hz transmission loss exceeds the 8.0 dB limit (i.e. the voice 7 grade standard). Field-Mounted VFR's are generally used for circuits with 8 resistance greater than 3000 ohms or where more than the maximum 9 available decibel gain from one terminal repeater is required. To satisfy 10 11 minimum return loss requirements, repeaters must be located at or near the facility's electrical midpoint and centered as close as possible between 12 two load coils. 13

14 Q. How does a repeater degrade the quality of an xDSL transmission?

A. Repeaters placed in a typical local loop are designed to operate under
 voice frequency standards only. Repeaters significantly distort the data
 stream resulting in high bit-rate error ratios that would ultimately result in
 unacceptable transmission levels for ADSL, which optimizes high band width applications using digital transmission.

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2	[]	I. Multiple Loop Conditioning Practices
3 4	Q	Mr. McPeak, have you had the opportunity to review BellSouth's proposed
5		cost model?
6	A.	Yes I have.
7	Q.	Has BellSouth over inflated its loop conditioning rates?
8	A.	Yes it has. In at least three significant ways, BellSouth has used inputs in
9		its cost model that improperly lead to over-inflated loop conditioning rates.
10		First, BellSouth unjustifiably presumes that only ten (10) pairs can be
11		conditioned per conditioning activity. In addition, BellSouth has proposed
12		extremely high labor activity times for most activities associated with loop
13		conditioning. Finally, BellSouth has assumed that 90% of conditioning for
14		load coils will be done in underground plant facilities and 10% will be done
15		in aerial or buried plant facilities, which not only misrepresents BellSouth's
16		network but also appears to conflict with other portions of BellSouth's cost
17		model.
18	Q.	Why is BellSouth's assumption that only 10 pair can be conditioned
19		per activity improper?
20	Α.	I have a performed an analysis which conservatively estimates that
21		approximately 224 loops less than 17,500 feet and 75 loops greater than
22		17,500 feet are available for conditioning per each location visited by a
23		BellSouth technician.

1	Q.	Can you please explain how you arrived at those numbers and why	
2		you believe them to be conservative?	
3	Α.	Yes. I will begin by discussing loops under 17,500 feet. First, I have	
4		assumed that the average BellSouth cable contains 600 copper pairs.	
5	Q.	is 600 a reasonable number?	
6	Α.	Yes, based on my experience, 600 is a conservative estimate. Mr. Keith	
7		Milner of BellSouth in his testimony describes a cable as containing 1200	
8		copper pairs. See Milner testimony at 9:15-16. The number I have used	
9		is half that.	
10	Q.	What is the next step in your analysis.	
11	Α.	I then used a fill factor of 58%, which means that of the 600 loops, 58% or	
12		347 currently are being used by BellSouth to provide voice service. I	
13		arrived at this number by using a weighted average. First, I took	
14		BellSouth's estimates for the average distribution (47%) and feeder (74%)	
15		fill factors. I then accounted for the fact that, in my experience, generally	
16		60% of a network is made up of distribution and 40% of feeder. Based on	
17		this assumption, I came up with a weighted average of 58%. ((47% *60%)	
18		+ (74% • 40%) = 58%.)	
19	Q.	What did you do next?	
20	Α.	I assumed that BellSouth would set aside a certain amount of pairs for the	
21		future provision of services. To estimate the number of lines that should	
22		be reserved for future voice demand, I relied on population growth data	

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1		from the U.S. Census Bureau, Population Division. Based on the most
2		recent data, Florida's population is growing at an annual rate of 1.4%. I
3		applied a 5.6% population growth rate (over a 4 year time horizon) and
4		assumed a 99% penetration rate for telephone subscribership in order to
5		calculate the number of lines that should be reserved to accommodate
6		new voice service demand. My understanding from my colleague Mark
7		Stacy is that most penetration rates are significantly less than 99%. The
8		5.6% growth rate utilized in the analysis would allow for 4 years of growth
9		at the most recently observed rate of 1.4% annually, a time period that is
10		sufficient to allow BellSouth to respond to both voice and data demand
11		and to plan and implement network upgrades to accommodate all
12		customer demand in the long term. Based on these numbers, 19 pairs
13		would need to be reserved for future voice applications.
14	Q.	You state, however, that 29 pairs would need to be set aside. How
15		do you arrive at that number?
16	A.	I have further assumed that one-half of all new customers will add a
17		second line. In other words, in order to calculate the number of lines to be
18		set aside for future voice demand over the next 4 years, 99% of new
19		residents are assumed to require new voice service, and one-half of those
20		new customers will require 2 lines. Based on these numbers, I have
21		estimated that 29 lines will need to be set aside.
22	Q.	What did you do next?

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1	А.	As stated above, using a fill factor of 58%, 253 of the 600 pairs per cable
2		are spare. I then subtracted the 29 lines that BellSouth would set aside
3		for future customers to arrive at 224 loops.
4	Q.	Did you employ the same analysis to reach the conclusion that 75
5		loops of greater than 17,500 feet are available to be conditioned at
6		each location.
7	Α.	Yes I did.
8	Q.	Although 224 pairs under 17,500 feet and 75 pairs over 17,500 feet
9		may be available for conditioning at an existing location, how many
10		pairs have you assumed should be conditioned at one time by
11		BellSouth.
12	Α.	In my calculations, I have presumed only that BellSouth will condition 25
13		pairs at a time. See Exhibit EM_7.
14	Q.	Can BellSouth achieve the efficiencies associated with multiple loop
15		conditioning in 25 pair increments without impairing the service of
16		existing voice customers, or impairing the ability of BELLSOUTH to
17		serve future voice customers?
18	Α.	Absolutely. As my analysis indicates, BellSouth can condition well over 25
19		loops without disturbing existing customer service and while still
20		maintaining reserve loops for future voice service demand.

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1		Simply, it is neither impractical nor inefficient to assume that multiple pairs
2		can be conditioned at a time without impairing BellSouth or other
3		providers' ability to serve voice customers
4	Q.	Moreover, isn't it true that you do not account for the fact that pairs
5		under 17,500 feet currently used to provide voice service still may be
6		conditioned without degrading that service?
7	Α.	That is correct. In my analysis, I conservatively have assumed that 347
8		pairs per cable are "filled" and unable to be conditioned. In reality,
9		however, BellSouth could condition and provide a variety of xDSL services
10		over those loops without degrading existing voice services.
11	Q.	With 224 and 75 pairs available for conditioning, respectively, would
12		it be likely that BellSouth would be conditioning loops unnecessarily
13		if it conditioned 25 at a time?
14	Α.	No. A report published by Dataquest in May of 1999 entitled "Changing
15		Traffic Patters: Data Versus Voice concludes that voice traffic is growing
16		at an annual rate of 6.9% while data traffic is growing at a 36.5% annual
17		rate. Although this data focuses on traffic rather than line demand, it
18		clearly demonstrates that the relative demand for data is greater than that
19		of voice, and implies that more lines will be needed to serve data
20		customers than voice customers in the future. BellSouth itself has
21		predicted a huge increase in demand for DSL related services in both the

1		wholesale and retail market. ² Given the strong demand by both
2		BellSouth and competitive providers of advanced services, it seems much
3		more likely that the supply of conditioned loops will be exceeded by the
4		demand. Moreover, as I stated previously, conditioned loops under
5		18,000 feet still may be used to provide voice services. Realistically,
6		therefore, it seems to me that the concern of this Commission should not
7		be whether there will be a demand for xDSL capable loops, but rather
8		BellSouth's reluctance to avail itself of the efficiencies associated with
9		conditioning multiple loops in increments of 25 or larger.
10	Q.	Are there other reasons why it is reasonable to assume that multiple
11		loops should be conditioned in 25 pair increments?
12	Α.	There are many reasons for taking advantage of the efficiencies
13		associated with conditioning multiple pairs. As I will discuss later in my
14		testimony, the time estimates proposed by BellSouth, which are utterly
15		unjustifiable on their face, also will be lowered when conditioning a
16		minimum of 25 loops for each dispatch. In addition, the tools technicians
17		use to splice connections are designed to condition multiple pairs. ILECs
18		generally use either Lucent 710 25-pair splice connectors or 3M MS ² 25-
19		pair splice connectors (See Exhibit EM_8). With the advent of such tools
20		and other similar process enhancements, single pair splicing has become
21		an outdated practice in the telecommunications industry for decades.

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See http://biz.yahoo.com/bw/000605/ga_bellsou_3.html.

DIRECT TESTIMONY ERIC McPEAK

1 Still another reason for conditioning multiple pairs at a time is that multiple 2 re-entries to splice closures in order to condition loops can cause serious 3 degradation of the wire insulation and can cause failure of the wire. In 4 other words, accessing the same network components over and over 5 again has the effect of wearing them out. Common sense dictates that it 6 would be more efficient and would cause less wear and tear if access 7 occurred as infrequently as possible. Less frequent access can be 8 9 accomplished by conditioning multiple loops at a time. Finally, as I will discuss later in my testimony, the cable containing the 10 pairs generally are divided up into twenty-five (25) pair binder groups. In 11 most cases, the twenty five pair binder groups are spliced using splicing 12 connectors that actually connect twenty-five pair at one time. This simply 13 represents another reason why I have chosen to use 25 pair as my base 14 number. 15 To conclude this issue Mr. McPeak, despite the fact that well over 25 Q. 16 loops can be conditioned at one time, your recalculated rates 17 assume that how many loops on average should be conditioned per 18 conditioning dispatch? 19 I conservatively have assumed that BellSouth will condition 25 per 20 Α. conditioning activity for both loops that are under 17,500 ft. and loops over 21 17,500 ft. 22

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PAGE 21

1 **Time Intervals for Loop Conditioning Activities** IV. 2 3 You stated earlier that BellSouth also has overstated the times Q. 4 involved in conditioning pairs, leading to over-inflated rates for 5 conditioning. Were BellSouth's time inputs supported? 6 I found no support in BellSouth's testimony to support the time intervals it 7 Α. has proposed. 8 Would you please provide a break down of the times that BellSouth 9 Q. has used in determining the costs for loop conditioning activities. 10

11 A. BellSouth has broken down the activity categories as follows:

FUNTCTION	JFC/PAYBAND	DESCRIPTION
Service Inquiry	SDWC	Systems Designer w/Sales Com
Service Inquiry	230x	Customer Point of Contact – ICSC/LCSC
Engineering	JG57	Job Grade 57
Engineering	WS10	Wage Scale 10
Engineering	4M1X	Network
Connect & Turn-Up and Test	420x	Outside Plant Constr (OSPC)
Connect & Turn-Up and Test	420x	Outside Plant Constr (OSPC)
Travel	420x	OSPC

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1	Q.	Please provide a detailed description of the activities performed for
2		each conditioning function category and the amount of time
3		BellSouth has included in its cost study for each activity.
4	Α.	Cost Element A.17.1, A.17.2, A.17.3
5		a. Service Inquiry - CRSC/Acct. Team receives Service Inquiry (SI)
6		from CLEC; forwards to OSPE for handling. Once OSPE responds
7		with Estimated Completion Date (ECD), follows up w/OSPE until
8		job is complete. (Time assumed in BellSouth Cost Study = 30
9		minutes.)
10		 b. Service Inquiry – LCSG receives SI, validates for accuracy &
11		processes for billing. (Time assumed in BellSouth Cost Study = 60
12		minutes)
13		c. Engineering – OSPE receives an SI from CRSG, verifies load
14		coil/equipment locations in plats. (Time assumed in BellSouth Cost
15		Study = 2 hours)
16		d. Engineering – AFIG receives job from OSPE and posts records.
17		(Time assumed in BellSouth Cost Study = 3 hours)
18		e. Engineering – OSPE Codes, assigns job number and returns SI to
19		CRSG. (Time assumed in BellSouth Cost Study = 1hour)
20		f. Connect & Turn-Up Test – (Underground) OSP Construction sets
21		up manholes, opens/closes splices, deloads pairs (Time assumed
22		in BellSouth Cost Study = 4.5 hours)

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8		its cost study to the appropriate times you used to recalculate the
7	Q.	Please provide a table comparing the BELLSOUTH activity times in
6		
5		assumed in BellSouth Cost Study = 30 minutes)
4		h. Travel – OSP Construction travels to load coil sites. (Time
3		Cost Study = 3.5 hours)
2		open closes splices, deload spares. (Time assumed in BellSouth
1		g. Connect & Turn-Up Test- (Buried/Aerial) OSP Constructions set-up,

9 **loop conditioning costs**.

10 A.

FUNCTION	JFC/PAYBAND	BellSouth Activity Time	Proper Activity Time
Service Inquiry	SDWC	30 minutes	15 minutes
Service Inquiry	230x	60 minutes	15 minutes
Engineering	JG57	2 hours	30 minutes
Engineering	WS10	3 hours	30 minutes
Engineering	4M1X	1 hour	30 minutes
Connect & Turn-Up and Test	420x	4.5 hours	1.5 hours
Connect & Turn-Up	420x	3.5 hours	42 minutes
Travel	420x	30 minutes	15 minutes

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12 Q. Please provide an explanation to support the reduction in the

13 BellSouth activity times and the method used to derive the proper

14 activity times.

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Service Inquiry - BellSouth assumes that it takes 90 minutes to process Α. 1 and follow up on an order to establish the proper billing to the customer. 2 Generally, most all service order activity is processed in electronic format, 3 4 and I believe that my colleague Mark Stacy has testified to the fact that in fact BellSouth is required under federal law and by this Commission to 5 provide electronic ordering and provisioning. The customer service 6 representative accesses the electronic database, enters the appropriate 7 8 information in electronic format and then processes the appropriate billing information. Since this whole process can be done electronically, the only 9 real time assumed is the time for entering the information into the 10 11 computer. Therefore, I have adjusted the activity time to 30 minutes for the total Service Inquiry process. 12 B. Engineering – BellSouth assumes that all engineering activities take 6 13

hours. When an Engineer receives an order from customer service (which 14 can usually be transferred electronically), he reviews the order for the 15 pertinent information. He then starts to review the outside plant records to 16 see where the inhibitors lie within the loop. Since many companies have 17 transferred outside plant records into Computer Aided Design Systems, 18 the Engineer has the ability to electronically review the records. After 19 locating the inhibitors within the loop, the engineer simply processes the 20 21 information electronically and sends it to Customer Service so that a technician may be dispatched. Once again, since the Engineer has the 22

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ability to process the majority of the information electronically, the proper time for the activity is 90 minutes.

C. Connect & Turn-Up and Test – BellSouth assumes that it takes 4.5 3 hours to perform conditioning activities in underground plant facilities and 4 3.5 hours in buried or aerial plant. I have performed these activities 5 myself, however, and based on my actual experience I know that these 6 7 times are drastically overstated. First, BellSouth assumes that it takes 2 8 hours to set up a manhole. Manhole and worksite preparation, however, can easily be done in less than 30 minutes. BellSouth then assumes that 9 it takes 1 hour to open and close a splice closure. This task can be 10 performed in less than 15 minutes. BellSouth assumes that it takes 1.5 11 12 hours to condition the pairs. This can easily be done in less than 15 minutes. As you can see, BellSouth drastically overstates the work times 13 for all of the activities. Similar overstatements appear in BellSouth's 14 15 proposed time for buried and aerial conditioning.

D. Travel – BellSouth assumes 30 minutes for travel time. Each technician
 is assigned to a designated geographic work area. The areas are typically
 arranged close to a central office or reporting location. This allows
 dispatchers to dispatch technicians in an efficient manner, thereby
 minimizing travel time from one work location to another. Almost all
 technicians today are equipped with lap top computers or some type of
 electronic hand held device that allows them to receive dispatches and

detailed information from remote locations about their next job. With this 1 technology available travel time is significantly decreased for the 2 technician. Loop conditioning activities almost always take place within 3 18,000 ft. from the central office. Since "inhibitors" are typically spaced 4 approximately 6,000 ft. apart, the average distance from one conditioning 5 location in the loop to the next is just a little more than one-mile, making 6 driving time very minimal for the associated activities. The appropriate 7 time for travel should be 15 minutes. 8 You stated previously that you spent a significant amount of time 9 Q. working as an Outside Plant Technician for an ILEC. Are your time 10 revisions based on your experience in actually performing the loop 11 conditioning activities you have addressed 12 Yes they are. 13 Α. 14 BellSouth includes costs for additional activity times in its cost Q. study. Do you agree with the application of these additional costs? 15 No I do not. BellSouth states that when removing bridge taps, 20% of the 16 Α. time it will be required to remove additional bridge taps. It is equally as 17 likely, however, that only one bridge tap would have to be removed on a 18 19 loop less than 18,000 feet. I have assumed that on average three bridge taps will have to be removed per loop. This accounts for the fact more or 20 less than three bridge taps could have to be removed from a given loop. 21 22 Simply, BellSouth should not be entitled to assess additional charges

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1		based on invalid assumptions that "additional" bridge taps hypothetically
2		may need to be removed.
3	V	CONDITIONING ACTIVITY BASED ON TYPE OF PLANT
4	Q,	You stated previously that BellSouth's cost model is based on the
5		presumption that 90% of conditioning for load coils will be done in
6		underground plant facilities and 10% will be done in aerial or buried plant
7		facilities. Do you agree with that assumption?
8	Α.	No I do not. If 90% of all conditioning takes place in underground plant
9		facilities, this assumes that most loops are contained in underground
10		facilities nearly 18,000 ft. from the Wire Center. This is a drastic
11		overstatement of the presence of underground facilities within the network.
12		Typically as a cable extends from the Wire Center it transitions from
13		Underground Plant to Aerial Plant and then to Buried Plant.
14	Q.	In fact, BellSouth's own cost model seems to contradict its
15		assumption that 90% of conditioning occurs in Underground
16		facilities, does it not?
17	A.	Yes. While BellSouth assumes for the purpose of load coil removal that
18		90% of such conditioning will occur in underground facilities, BellSouth
19		inexplicably assumes that bridge tap removal will occur equally in
20		underground, aerial and buried facilities.

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1	Q.	Is there any explanation for BellSouth's contention that somehow the
2		network architecture is different when removing load coils versus
3		removing bridge taps.
4	Α.	No there is not. The same assumption that conditioning occurs equally in
5		each of the types of facilities should be applied not just for bridge tap
6		removal, but also for the removal of load coils and repeaters alike.
7	Q.	Please Define Underground Plant and the process required to
8		remove Load Coils, Repeaters and Bridge Taps from Underground
9		Plant.
10	A	Underground plant consists of cable that is installed in underground
11		conduit which passes through a manhole system. There are several steps
12		necessary to de-load or remove a load coil from a manhole where the
13		splice closure exists in the underground network.
14		1) Travel Time - The splicing technician must first travel to the site where
15		the work is to be performed. Each technician is assigned to a
16		designated geographic work area. The areas are typically arranged
17		close to a central office or reporting location. This allows dispatchers
18		to dispatch technicians in a efficient manner minimizing travel time
19		from one work location to another. Almost all technicians today are
20		equipped with lap top computers or some type of electronic hand held
21		device that allows them to receive dispatches and detailed information
22		from remote locations about their next job. With this technology,

1available travel time is significantly decreased for the technician. Since2"disturbers" are typically spaced approximately 6,000 feet apart, the3average distance from one conditioning location in the loop to the next4is a little more than one mile, making driving time very minimal for the5associated activities.

- 2) Prepare work site with safety equipment Some manholes are located
 in the middle of roadways or streets. In order to comply with safety
 regulations, the technician must properly prepare the work location
 with traffic signs and cones.
- 3) Open and prepare manhole The technician must remove the lid from
 the manhole and pump any water from the manhole. He must also test
 the manhole for oxygen levels and purge the manhole with fresh air to
 ensure safe working conditions. Pumping water from the manhole and
 purging the manhole with air can be performed simultaneously.
- 4) Enter manhole, locate and open splice case Cables in manholes are 15 racked horizontally along the walls of the manhole. Typically, cables 16 are racked on two (2) of the four (4) walls of the manhole. Depending 17 on the size of the manhole, there are one (1) to four (4) cables racked 18 in the manhole per cable entry side (see Manhole Diagram, below). 19 20 The splice closures are typically marked with a combination of numbers and letters that identify the cable contained within the closure. 21 Splice closures are typically large stainless steel cylinders sealed with 22

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bolts at the top and bottom of the closure. Most closures will have six
 (6) to eight (8) bolts that will need to be removed. Technicians carry
 ratcheting tools that can remove the bolts easily and quickly.





(5) Cut cable pair from "disturber" stub and re-splice pair - Cables are 9 divided up into twenty-five (25) pair binder groups. Within the binder 10 groups, the individual pairs are color coded for identification purposes. 11 12 This enables the technician to easily locate the pair or binder group to 13 be conditioned. In most cases, the twenty-five pair binder groups are 14 spliced using splicing connectors that actually connect twenty-five pair at one time. An example of this type of splice is the MS² splice 15 connector, as shown in Diagrams 1 and 2, below. Also see 16 17 Exhibit EM 8.



PAGE 32

To remove the "disturber" pair from the splice connector, you simply 1 pull the pair from the splicing connector. You can pull one pair at a 2 time or several pairs at once if you wish. You then need to reconnect 3 the feeder side of the pair to the field side of the pair to complete 4 5 connectivity through the splice. Once again, this can be performed one pair at a time or all twenty-five at once if so desired. After the 6 splicing activities have been performed, the technician then closes and 7 seals the splice closure by installing the closure sealing bolts. 8 5) Remove splicing and safety equipment and load on truck - This 9 consists of removing the traffic safety equipment, test equipment and 10 purging equipment and placing it back on the truck. 11 12 Q. Please Define Aerial Plant and Discuss the Process required to remove Load Coils, Bridge Taps and Repeaters from Aerial Plant. 13 Aerial plant is cable that is installed and attached to poles which support Α. 14 the cable in the air. The closures used to house splices vary in size and 15 architecture. Some aerial splice closures are stainless steel and have the 16 same architecture as those used in underground plant. These are typically 17 used on very large cables where multiple splice connectors will need to be 18 housed. There are also polyurethane splice closures which are much 19 easier to access and make up the majority of closures used in aerial plant. 20 21 Many of the steps to condition aerial plant are very similar to those used to 22 condition underground plant.

PAGE 33

1) Travel Time - This is the identical activity as described in the 1 underground explanation located in this testimony. 2 2) Prepare work site with safety equipment - The conditioning of aerial 3 cable will most likely involve the technician working out of a bucket 4 truck. The technician will have to put cones around the truck to 5 mark the work area and will need to place traffic safety signs in the 6 proper locations. Cable routes typically follow roads and utility right-7 of-way corridors. Utility right-of-way corridors most often are located 8 9 in areas where there is no public access or traffic flow. When conditioning is done in these locations, there is no need for the 10 placement of traffic signs. 11 12 3) Approach aerial terminal and open terminal - At this point, the technician will enter the bucket and approach the aerial terminal. 13 14 He will open the terminal and either remove a few bolts from a 15 stainless steel type closure or slip some simple fastening clips from the poly style closure. 16 17 4) Locate and remove pair from "disturber" - As mentioned previously, 18 the pairs will be color coded for easy identification. The technician 19 simply locates the pair to be conditioned and removes the pair from 20 the "disturber" (load coil, bridge tap, repeater). This is accomplished 21 by the same method as describe previously. Additional pairs can be

PAGE 34

conditioned simultaneously very quickly and easily as described 1 previously in this testimony 2 5) Store pairs, close spice closure, and descend pole - This consists 3 of arranging the splice connectors back in the splice case and 4 closing the case. After the technician has closed the splice closure 5 he will descend the pole 6 6) Store tools and remove safety cones and traffic equipment. 7 Q. Please Define Buried Plant and Discuss the Methods of Conditioning 8 9 Pairs in Buried Plant. Buried plant consists of cable that is directly buried in the ground. It is not 10 Α. housed in a protective conduit like underground plant. The types of splice 11 closures used for buried plant are normally metal boxes that stick out of 12 the ground. To enter the splice closure you simply loosen one or possibly 13 14 two bolts and remove the lid. Some larger splice closures actually have doors that conveniently swing open. The conditioning times and activities 15 for buried plant are very similar to aerial plant. The only basic difference is 16 17 that the technician has slightly less time involved in approaching the splice closure since it is located on the ground. In most instances it also takes a 18 19 little less time to open the splice closure due because there is only one or 20 possibly two bolts to loosen to enter the closure.

1	Q.	Based on your descriptions above, is it your testimony that
2		conditioning becomes less expensive as the network moves from
3		underground to aerial to buried facilities?
4	A.	Yes it is.
5	Q.	What effect then, does overstating the percentage of conditioning
6		activity that occurs in underground facilities have on BellSouth's
7		proposed costs?
8	Α.	BellSouth's assumption with regard to load coils that 90% of conditioning
9		activities occur in underground facilities simply over-inflates its costs.
10	Q.	Please describe in detail the method you used to recalculate the
11		proper rates based on the correct activity times.
12	A.	I actually used the Excel Workbooks included with BellSouth's TELRIC
13		costs calculator to produce the inputs into BellSouth's TELRIC Cost
14		Calculator Version 2.3. I then ran BellSouth's TELRIC Cost Calculator to
15		produce new Economic Costs.
16	Q.	Please Summarize your thoughts on BellSouth's conditioning
17		practices from a viewpoint of costing and efficiency.
18	A.	As indicated in my testimony, the conditioning practices described by
19		BELLSOUTH are not based on actual field work experience. BellSouth's
20		assumption that only 10 loops should be conditioned per activity where
21		hundreds of additional loops are available for conditioning simply
22		promotes inefficiency and raises costs to competitors. Moreover,
BellSouth's proposed cost model significantly overestimates the work times necessary for most of the conditioning tasks. I have conducted these tasks personally on many occasions and can testify unreservedly that not only has BellSouth significantly overstated the times involved to complete certain activities, but also has assigned times to activities that simply may not need to be performed.

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VI. Recommended Rates

10 Q. What rates do you recommend the Commission approve for

11 BELLSOUTH for loop conditioning in this proceeding?

12 A.

Cost Element	Description	Non- Recurring Cost	Reference
A.17.1	Unbundled Loop Modification Load Coil/Equip. Removal Short	\$9.76	Exhibit EM_1
A.17.2	Unbundled Loop Mod. Load Coil Removal - Long	\$31.92	Exhibit EM_2
A.17.3	Unbundled Loop Mod. Bridge Tap Removal	\$7.811	Exhibit EM_3
A.17.4	Unbundled Loop Mod. Additive	\$ <mark>1</mark> 6.71	Exhibit EM_4

13

Q. Recently, the United States Court of Appeals for the Eighth Circuited
 vacated and remanded the FCC Rule 51.505(b)(1) regarding efficient
 network configuration. Does the decision of the Eighth Circuit affect
 your analysis and the rates you have proposed?

Docket No. 990649-TP

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No it does not. While I am not a lawyer, my understanding is that the 1 Α. Eighth Circuit found that forward looking, incremental costs are still proper, 2 but should be based upon the costs incurred by an ILEC in providing 3 access to its existing network, not a hypothetical, technologically superior 4 network. In vacating the FCC Rule 51.505(b)(1), however, it is highly 5 unlikely that the Eighth Circuit intended to remove any efficiency 6 requirement placed on ILECs. Rather, while arguably now ILECs may 7 recover those costs associated with providing access to their existing 8 networks, they still are required to provide competitive providers with 9 access to those networks in an efficient manner. 10 in the context of loop conditioning, what results could occur if 11 Q. BellSouth was no longer required to provide conditioned loops in an 12 efficient manner. 13 Simply, BellSouth would have the ability to stifle competition in Florida. As 14 Α. I have described above, BellSouth already is overstating much of its time 15 estimates, leading to over-inflated rates that I understand are cost 16 17 prohibitive for those companies for whom I am testifying. Without an 18 efficiency requirement, BellSouth could opt to fly its engineers to China prior to conditioning a loop, and pass through those charges to 19 20 competitive providers. Clearly, this is not what the Eighth Circuit intended.

21 Q. Does this conclude your testimony?

22 A. Yes it does.

DOCKET NO. 990649-TP ERIC MCPEAK EXHIBIT NO. 1 A.17.1 UNBUNDLED LOOP MODIFICATION

Nonrecurring Cost Development - TELRIC

Docket No. 990649-TP Eric McPeak Exhibit No. 1 A.17.1 Unbundled Loop Modification

Florida A.17.1 Unbundled Loop Modification - Load Coil / Equipment Removal -

short

Exhibit EM_1

	Nonrecurring Cost - Disconnect			
Description	Direct <u>Cost</u>	Shared <u>Cost</u>	<u>TELRIC</u>	
Nonrecurring Cost Development Reports	\$0.0000	\$0.0000	\$0.0000	
OTHER EXPENSES: Total Cost Gross Receipts Tax Factor	\$0.0000	\$0.0000 X	\$0.0000 1.009566	
Cost (Including Gross Recepts Tax) Common Cost Factor Economic Cost		х	<u>1.0624</u> \$0.0000	

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Nonrecurring Cost Development - TELRIC

Docket No. 990649-TP Eric McPeak Exhibit No. 1 A.17.1 Unbundled Loop Modification

Florida A.17.1 Unbundled Loop Modification - Load Coil / Equipment Removal - short Exhibit EM_1

			Α	В	С	D=AxC	E=BxC	F	G=ExF
Function	JFC/ <u>Payband</u>	JFC/Payband Description	Instaliation <u>Worktime</u>	Disconnect <u>Worktime</u>	Direct Labor <u>Rate</u>	Installation <u>Cost</u>	Disconnect <u>Cost</u>	Disconnect Discount Factor	Discounted Disconnect <u>Cost</u>
SERVICE INQUIRY	SDWC	Systems Designer w/Sales Com	0.0250	0.0000	\$51.17	\$1.2793	\$0.0000	1.0000	\$0.0000
SERVICE INQUIRY	230X	Customer Point Of Contact - ICSC/LCSC	0.0250	0.0000	\$31.17	\$0.7793	\$0.0000	1.0000	\$0.0000
ENGINEERING	JG57	Job Grade 57	0.0500	0.0000	\$40.538	\$2.0269	\$0.0000	1.0000	\$0.0000
ENGINEERING	WS10	Wage Scale 10	0.0200	0.0000	\$24.1422	\$0.4828	\$0.0000	1.0000	\$0.0000
ENGINEERING	4M1X	Address & Facility Inventory (AFIG)	0.0200	0.0000	\$34.31	\$0.6862	\$0.0000	1.0000	\$0.0000
CONNECT & TURN-UP TEST	420X	Outside Plant Constr (OSPC)	0.0416	0.0000	\$42.55	\$1.7692	\$0.0000	1.0000	\$0.0000
CONNECT & TURN-UP TEST	420X	Outside Plant Constr (OSPC)	0.0388	0.0000	\$42.55	\$1.6513	\$0.0000	1.0000	\$0.0000
TRAVEL	420X	Outside Plant Constr (OSPC)	0.0100	0.0000	\$42.55	\$0.4255	\$0.0000	1.0000	\$0.0000
						\$9,1005			\$0.0000

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Nonrecurring Cost Development - TELRIC

Docket No. 990649-TP Eric McPeak Exhibit No. 1 A.17.1 Unbundled Loop Modification

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Florida A.17.1 Unbundled Loop Modification - Load Coil / Equipment Removal - short Exhibit EM_1

			Α	8	С	D=AxC	E=BxC	F	G=ExF
Function	JFC/ <u>Payband</u>	JFC/Payband Description	Installation <u>Worktime</u>	Disconnect Worktime	TELRIC Labor <u>Rate</u>	Installation Cost	Disconnect <u>Cost</u>	Disconnect Discount <u>Factor</u>	Discounted Disconnect <u>Cost</u>
SERVICE INQUIRY	SDWC	Systems Designer w/Sales Com	0.0250	0.0000	\$51.17	\$ 1.2793	\$0.0000	1.0000	\$0.0000
SERVICE INQUIRY	230X	Customer Point Of Contact - ICSC/LCSC	0.0250	0.0000	\$31.17	\$0.779 3	\$0.0000	1.0000	\$0.0000
ENGINEERING	JG57	Job Grade 57	0.0500	0.0000	\$40.538	\$2.0269	\$0.0000	1.0000	\$0.0000
ENGINEERING	WS10	Wage Scale 10	0.0200	0.0000	\$24.1422	\$0.4828	\$0.0000	1.0000	\$0.0000
ENGINEERING	4M1X	Address & Facility Inventory (AFIG)	0.0200	0.0000	\$34.31	\$0.6862	\$0.0000	1.0000	\$0.0000
CONNECT & TURN-UP TEST	420X	Outside Plant Constr (OSPC)	0.0416	0.0000	\$42.55	\$1.7692	\$0.0000	1.0000	\$0.0000
CONNECT & TURN-UP TEST	420X	Outside Plant Constr (OSPC)	0.0388	0.0000	\$42.55	\$1 .6513	\$0.0000	1.0000	\$0.0000
TRAVEL	420X	Outside Plant Constr (OSPC)	0.0100	0.0000	\$42.55	\$0.4255	\$0.0000	1.0000	\$0.0000
						\$9.1005			\$0.0000

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DOCKET NO. 990649-TP Eric MCPEAK EXHIBIT NO. 2 A.17.2 UNBUNDLED LOOP MODIFICATION

Nonrecurring Cost Summary

Docket No. 990649-TP Eric McPeak Exhibit No. 2 A.17.2 Unbundled Loop Modification

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Florida A.17.2 Unbundled Loop Modification - Load Coil / Equipment Removal - long - First and Additional Exhibit EM_2

Nonrecurring Cost

	Disconnect - First			Disconnect - Additional			
Description	Direct <u>Cost</u>	Shared <u>Cost</u>	<u>TELRIÇ</u>	Direct <u>Cost</u>	Shared <u>Cost</u>	<u>TELRIC</u>	
Nonrecurring Cost Development Reports	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0 .0000	\$0.0000	
OTHER EXPENSES: Total Cost Gross Receipts Tax Factor	\$0.0000	\$0.0000 X	\$0.0000 1.009566	\$0.0000	\$0.0000 X	\$0.0000 1.009566	
Cost (Including Gross Recepts Tax) Common Cost Factor Economic Cost		x	\$0.0000 1.0624 \$0.0000		x	\$0.0000 1.0624 \$0.0000	

Exhibit EM_2

Nonrecurring Cost Summary

Docket No. 990649-TP Eric McPeak Exhibit No. 2 A.17.2 Unbundled Loop Modification

Florida
A.17.2 Unbundled Loop Modification - Load Coil / Equipment Removal - long - First and Additional

_				A	B	С	D=AxC	E=BxC	F	G=ExF
Function	JFC/ <u>Payband</u>	JFC/Payband Description	NRC Type	Installation Worktimes	Disconnect <u>Worktimes</u>	Direct Labor <u>Rate</u>	Installation <u>Cost</u>	Disconnect <u>Cost</u>	Disconnect Discount <u>Factor</u>	Discounted Disconnect <u>Cost</u>
SERVICE INQUIRY	SDWC	Systems Designer w/Sales Com	First	0.2500	0.0000	\$51.17	\$12,7925	\$0.0000	1.0000	\$0.0000
			Add'l	0.0000	0.0000		\$0.0000	\$0.0000		\$0.0000
SERVICE INQUIRY	230X	Customer Point Of Contact - ICSC/LCSC	First	0.2500	0.0000	\$31.17	\$7,7925	\$0.0000	1.0000	\$0.0000
			Add'l	0.0000	0.0000		\$0.0000	\$0.0000		\$0.0000
ENGINEERING	JG57	Job Grade 57	First	0.0200	0.0000	\$40.538	\$0.8108	\$0.0000	1.0000	\$0.0000
			Add'l	0.0000	0.0000		\$0.0000	\$0.0000		\$0.0000
ENGINEERING	WS10	Wage Scale 10	First	0.0200	0.0000	\$24,1422	\$0.4828	\$0.0000	1.0000	\$0.0000
		-	Add'l	0.0000	0.0000		\$0.0000	\$0.0000		\$0.0000
ENGINEERING	4M1X	Address & Facility Inventory (AFIG)	First	0.0100	0.0000	\$34.31	\$0.3431	\$0.0000	1.0000	\$0.0000
			Add'l	0.0000	0.0000		\$0.0000	\$0.0000		\$0.0000
CONNECT & TURN-UP TEST	420X	Outside Plant Constr (OSPC)	First	0.1455	0.0000	\$42.55	\$6,1923	\$0.0000	1.0000	\$0.0000
			Add'l	0.0000	0.0000		\$0.0000	\$0.0000		\$0.0000
CONNECT & TURN-UP TEST	420X	Outside Plant Constr (OSPC)	First	0.0216	0.0000	\$42.55	\$0.9174	\$0.0000	1.0000	\$0.0000
		· ,	Add'l	0.0000	0.0000		\$0.0000	\$0.0000		\$0.0000
TRAVEL	420X	Outside Plant Constr (OSPC)	First	0.0100	0.0000	\$42.55	\$0.4255	\$0.0000	1.0000	\$0.0000
			Add'l	0.0000	0.0000		\$0.0000	\$0.0000		\$0.0000
						Total First	\$29.7569		Total First	\$0.0000
						Total Addit	£0.0000		Total Addit	£0.0000

Total Add'l	\$0.0000	Total Add'l	\$0.0000

Nonrecurring Cost Summary

Docket No. 990649-TP Eric McPeak Exhibit No. 2 A.17.2 Unbundled Loop Modification . .

	Florida
A.17.2	Unbundled Loop Modification - Load Coll / Equipment Removal - long - First and Additional

Exhibit EM_2

-				A	В	с	D=AxC	E=BxC	F	G=ExF
Function	JFC/ Payband	JFC/Payband <u>Description</u>	NRC Type	Installation Worktimes	Disconnect <u>Worktimes</u>	TELRIC Labor <u>Rate</u>	Installation <u>Cost</u>	Disconnect <u>Cost</u>	Disconnect Discount <u>Factor</u>	Discounted Disconnect <u>Cost</u>
SERVICE INQUIRY	SDWC	Systems Designer w/Sales Com	First	0.2500	0.0000	\$51.17	\$12.7925	\$0.0000	1.0000	\$0.0000
			Add1	0.0000	0.0000		\$0.0000	\$0.0000		\$0.0000
SERVICE INQUIRY	230X	Customer Point Of Conlact - ICSC/LCSC	First	0.2500	0.0000	\$31.17	\$7.7925	\$0.0000	1.0000	\$0 .0000
			Add'l	0.0000	0.0000		\$0.0000	\$0.0000		\$0.0000
ENGINEERING	JG57	Job Grade 57	First	0.0200	0.0000	\$40.538	\$0.8108	\$0.0000	1.0000	\$0.0000
			Add'l	0.0000	0.0000		\$0.0000	\$0.0000		\$0.0000
ENGINEERING	WS10	Wage Scale 10	First	0.0200	0.0000	\$24.1422	\$0.4828	\$0.0000	1.0000	\$0.0000
			Add'l	0.0000	0.0000		\$0.0000	\$0.0000		\$0.0000
ENGINEERING	4M1X	Address & Facility Inventory (AFIG)	First	0.0100	0.0000	\$34.31	\$0.3431	\$0.0000	1.0000	\$0.0000
			Add'l	0.0000	0.0000		\$0.0000	\$0.0000		\$0.0000
CONNECT & TURN-UP TEST	420X	Outside Plant Constr (OSPC)	First	0.1455	0.0000	\$42.55	\$6.1923	\$0.0000	1.0000	\$0.0000
			Add'l	0.0000	0.0000		\$0.0000	\$0.0000		\$0.0000
CONNECT & TURN-UP TEST	420X	Outside Plant Constr (OSPC)	First	0.0216	0.0000	\$42.55	\$0.9174	\$0.0000	1.0000	\$0.0000
			Add'l	0.0000	0.0000		\$0.0000	\$0.0000		\$0.0000
TRAVEL	420X	Outside Plant Constr (OSPC)	First	0.0100	0.0000	\$42.55	\$0.4255	\$0.0000	1.0000	\$0.0000
			Add'l	0.0000	0.0000		\$0.0000	\$0.0000		\$0.0000
						Total First	\$29 7569		Total First	\$0.000

Total First	\$29.7569	Total First	\$0.0000
Total Add'l	\$0,0000	Total Add'l	\$0,000

DOCKET NO. 990649-TP ERIC MCPEAK EXHIBIT NO. 3 A.17.3 UNBUNDLED LOOP MODIFICATION

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Nonrecurring Cost Development - TELRIC

Docket No. 990649-TP Eric McPeak Exhibit No. 3 A.17.3 Unbundled Loop Modification

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Florida

A.17.3 Unbundled Loop Modification - Bridged Tap Removal Exhibit_EM3

Nonrecurring Cost - Disconnect

	Direct	Shared	
Description	<u>Cost</u>	Cost	TELRIC
Nonrecurring Cost Development Reports	\$0.0000	\$0.0000	\$0.0000
OTHER EXPENSES:			
Total Cost	\$0.0000	\$0.0000	\$0.0000
Gross Receipts Tax Factor		Х	1.009566
Cost (Including Gross Recepts Tax)			\$0.0000
Common Cost Factor		X	1.0624
Economic Cost			\$0.0000

Nonrecurring Cost Development - TELRIC

Docket No. 990649-TP Eric McPeak Exhibit No. 3 A.17.3 Unbundled Loop Modification

G=ExF

F

	Florida
A.17.3	Unbundled Loop Modification - Bridged Tap Removal

А

в

С

D=AxC

E=BxC

Exhibit_EM3

Function	JFC/ <u>Payband</u>	JFC/Payband Description	Installation <u>Worktime</u>	Disconnect <u>Worktime</u>	Direct Labor <u>Rate</u>	Installation <u>Cost</u>	Disconnect <u>Cost</u>	Disconnect Discount <u>Factor</u>	Discounted Disconnect <u>Cost</u>
SERVICE INQUIRY	SDWC	Systems Designer w/Sales Com	0.0250	0.0000	\$51.17	\$1.2793	\$0.0000	1.0000	\$0.0000
SERVICE INQUIRY	230X	Customer Point Of Contact - ICSC/LCSC	0.0250	0.0000	\$31.17	\$0.7793	\$0.0000	1.0000	\$0.0000
ENGINEERING	JG57	Job Grade 57	0.0200	0.0000	\$40.538	\$0.8108	\$0.0000	1.0000	\$0.0000
ENGINEERING	WS10	Wage Scale 10	0.0100	0.0000	\$24.1422	\$0.2414	\$0.0000	1.0000	\$0.0000
ENGINEERING	4M1X	Address & Facility Inventory (AFIG)	0.0100	0.0000	\$34.31	\$0.3431	\$0.0000	1.0000	\$0.0000
CONNECT & TURN-UP TEST	420X	Outside Plant Constr (OSPC)	0.0500	0.0000	\$42.55	\$2.1275	\$0.0000	1.0000	\$0.0000
CONNECT & TURN-UP TEST	420X	Outside Plant Constr (OSPC)	0.0380	0.0000	\$42.55	\$1.6169	\$0.0000	1.0000	\$0.0000
TRAVEL	420X	Outside Plant Constr (OSPC)	0.0020	0.0000	\$42.55	\$0.0851	\$0.0000	1.0000	\$0.0000
						\$7.2833			\$0.0000

Source: BellSouth Cost Calculator 2.3

Nonrecurring Cost Development - TELRIC

Docket No. 990649-TP Eric McPeak Exhibit No. 3 A.17.3 Unbundled Loop Modification

	Florida
A.17.3	Unbundled Loop Modification - Bridged Tap Removal

Exhibit_EM3

			A	8	С	D=AxC	E=BxC	F	G=ExF
Function	JFC/ <u>Payband</u>	JFC/Payband <u>Description</u>	Installation <u>Worktime</u>	Disconnect <u>Worktime</u>	TELRIC Labor <u>Rate</u>	Installation <u>Cost</u>	Disconnect <u>Cost</u>	Disconnect Discount <u>Factor</u>	Discounted Disconnect <u>Cost</u>
SERVICE INQUIRY	SDWC	Systems Designer w/Sales Com	0.0250	0.0000	\$51.17	\$1.2793	\$0.0000	1.0000	\$0.0000
SERVICE INQUIRY	230X	Customer Point Of Contact - ICSC/LCSC	0.0250	0.0000	\$31.17	\$0.7793	\$0.0000	1.0000	\$0.0000
ENGINEERING	JG57	Job Grade 57	0.0200	0.0000	\$40.538	\$0.8108	\$0.0000	1.0000	\$0.0000
ENGINEERING	WS10	Wage Scale 10	0.0100	0.0000	\$24.1422	\$0.2414	\$0.0000	1.0000	\$0.0000
ENGINEERING	4M1X	Address & Facility Inventory (AFIG)	0.0100	0.0000	\$34.31	\$0.3431	\$0.0000	1.0000	\$0.0000
CONNECT & TURN-UP TEST	420X	Outside Plant Constr (OSPC)	0.0500	0.0000	\$42.55	\$2.1275	\$0.0000	1.0000	\$0.0000
CONNECT & TURN-UP TEST	420X	Outside Plant Constr (OSPC)	0.0380	0.0000	\$42.55	\$1.6169	\$0.0000	1.0000	\$0.0000
TRAVEL	420X	Outside Plant Constr (OSPC)	0.0020	0.0000	\$42.55	\$0.0851	\$0.0000	1.0000	\$0.0000
						\$7.2833			\$0.0000

DOCKET NO. 990649-TP ERIC MCPEAK EXHIBIT NO. 4 A.17.4 UNBUNDLED LOOP MODIFICATION

Nonrecurring Cost Summary

Docket No. 990649-TP Eric McPeak Exhibit 4 A.17.4 Unbundled Loop Modification

Florida A.17.4 Unbundled Loop Modification - Additive Exhibt EM_4

Nonrecurring Cost

	<u>Di</u>	sconnect - F	irst	Disconnect - Additional				
Description	Direct <u>Cost</u>	Shared <u>Cost</u>	TELRIC	Direct <u>Cost</u>	Shared <u>Cost</u>	TELRIC		
Nonrecurring Cost Development Reports	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		
OTHER EXPENSES: Total Cost Gross Receipts Tax Factor Cost (Including Gross Recepts Tax) Common Cost Factor	\$0.0000	\$0.0000 ×	\$0.0000 (1.009566 \$0.0000 (1.0624	\$0.0000	\$0.0000 X X	\$0.0000 1.009566 \$0.0000 1.0624		
Economic Cost			\$0.0000			20.0000		

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Nonrecurring Cost Summary

Docket No. 990649-TP Eric McPeak Exhibit 4 A.17.4 Unbundled Loop Modification

		A.17.4	Unbund	lled Loop Modifi	cation - Additive	,				
Exhibt EM_4				A	В	С	D=AxC	E=BxC	F	G=ExF
Function	JFC/ Payband	JFC/Payband Description	NRC <u>Type</u>	Installation <u>Worktimes</u>	Disconnect <u>Worktimes</u>	Direct Labor <u>Rate</u>	Installation <u>Cost</u>	Disconnect <u>Cost</u>	Disconnect Discount <u>Factor</u>	Discounted Disconnect <u>Cost</u>
SERVICE INQUIRY	SDWC	Systems Designer w/Sales Com	First	0.0428	0.0000	\$51.17	\$2.1895	\$0.0000	1.0000	\$0.0000
SERVICE INQUIRY	230X	Customer Point Of Contact - ICSC/LCSC	Add'i First	0.0856 0.0428 0.1712	0.0000 0.0000	\$31.17	\$4.3790 \$1.3337 \$5.3349	\$0.0000 \$0.0000 \$0.0000	1.0000	\$0.0000 \$0.0000
ENGINEERING	JG57	Job Grade 57	First Add'l	0.0856	0.0000	\$40.538	\$3.4691 \$13.8765	\$0.0000 \$0.0000 \$0.0000	1.0000	\$0.0000
ENGINEERING	WS10	Wage Scale 10	First Add'l	0.0342	0.0000	\$24.1422	\$0.8264 \$12.3961	\$0.0000 \$0.0000	1.0000	\$0.0000 \$0.0000
ENGINEERING	4M1X	Address & Facility Inventory (AFIG)	First Add'i	0.0342	0.0000 0.0000	\$34.31	\$1.1745 \$5.8723	\$0.0000 \$0.0000	1.0000	\$0.0000 \$0.0000
CONNECT & TURN-UP TEST	420X	Outside Plant Constr (OSPC)	First Add'l	0.0712 1.4557	0.0000 0.0000	\$42.55	\$3.0281 \$61.9388	\$0.0000 \$0.0000	1.0000	\$0.0000 \$0.0000
CONNECT & TURN-UP TEST	420X	Outside Plant Constr (OSPC)	First Add'l	0.0664 0.1258	0.0000 0.0000	\$42.55	\$2.8262 \$5.3527	\$0.0000 \$0.0000	1.0000	\$0.0000 \$0.0000
TRAVEL	420X	Outside Plant Constr (OSPC)	First Add')	0.0171 0.0856	0.0000 0.0000	\$42.55	\$0.7283 \$3.6413	\$0.0000 \$0.0000	1.0000	\$0.0000 \$0.0000
						Total First	\$15.5758		Total First	\$0.0000
CONNECT & TURN-UP TEST CONNECT & TURN-UP TEST TRAVEL	420X 420X 420X	Outside Plant Constr (OSPC) Outside Plant Constr (OSPC) Outside Plant Constr (OSPC)	First Add'i First Add'i First Add'i	0.0712 1.4557 0.0664 0.1258 0.0171 0.0856	0.0000 0.0000 0.0000 0.0000 0.0000	342.55 \$42.55 \$42.55 Total First Total Add'l	\$3.0281 \$61.9388 \$2.8262 \$5.3527 \$0.7283 \$3.6413 \$15.5758 \$112.7917	\$0.0000 \$0.0000 \$0.0000 \$0.0000 \$0.0000	1.0000 1.0000 Total First Total Add'i	

Florida

Nonrecurring Cost Summary

Docket No. 990649-TP Eric McPeak Exhibit 4 A.17.4 Unbundled Loop Modification

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		A.17.4 Unbundled Loop Modification - Additive									
Exhibt EM_4				А	В	С	D≃AxC	E=BxC	F	G≈ExF	
Function	JFC/ Payband	JFC/Payband Description	NRC Type	Installation Worktimes	Disconnect Worktimes	TELRIC Labor <u>Rate</u>	Installation <u>Cost</u>	Disconnect <u>Cost</u>	Disconnect Discount <u>Factor</u>	Discounted Disconnect <u>Cost</u>	
SERVICE INQUIRY	SDWC	Systems Designer w/Sales Com	First	0.0428	0.0000	\$51.17	\$2.1895	\$0.0000	1.0000	\$0.0000	
			Add'l	0.0856	0.0000		\$4.3790	\$0.0000		\$0.0000	
SERVICE INQUIRY	230X	Customer Point Of Contact - ICSC/LCSC	First	0.0428	0.0000	\$31.17	\$1.3337	\$0.0000	1.0000	\$0.0000	
			Add'l	0.1712	0.0000		\$5.3349	\$0.0000		\$0.0000	
ENGINEERING	JG57	Job Grade 57	First	0.0856	0.0000	\$40.538	\$3.4691	\$0.0000	1.0000	\$0.0000	
			Add'l	0.3423	0.0000		\$13.8765	\$0.0000		\$0.0000	
ENGINEERING	WS10	Wage Scale 10	First	0.0342	0.0000	\$24.1422	\$0.8264	\$0.0000	1.0000	\$0.0000	
			Addʻi	0.5135	0.0000		\$12.3961	\$0.0000		\$0.0000	
ENGINEERING	4M1X	Address & Facility Inventory (AFIG)	First	0.0342	0.0000	\$34.31	\$1.1745	\$0.0000	1.0000	\$0.0000	
			Add'l	0.1712	. 0.0000		\$5.8723	\$0.0000		\$0.0000	
CONNECT & TURN-UP TEST	420X	Outside Plant Constr (OSPC)	First	0.0712	0.0000	\$42.55	\$3.0281	\$0.0000	1.0000	\$0.0000	
			Add'l	1.4557	0.0000		\$61.9388	\$0.0000		\$0.0000	
CONNECT & TURN-UP TEST	420X	Outside Plant Constr (OSPC)	First	0.0664	0.0000	\$42.55	\$2.8262	\$0.0000	1.0000	\$0.0000	
			Add'l	0.1258	0.0000		\$5,3527	\$0.0000		\$0.0000	
TRAVEL	420X	Outside Plant Constr (OSPC)	First	0.0171	0.0000	\$42.55	\$0.7283	\$0.0000	1.0000	\$0.0000	
			Add'l	0.0856	0.0000		\$3.6413	\$0.0000		\$0.0000	

Florida

Total First \$15.5758 **Total First** \$0.0000 Total Add'l \$0.0000 \$0.0000 Total Add'l

Source: BellSouth Cost Calculator 2.3

DOCKET NO. 990649-TP ERIC MCPEAK EXHIBIT NO. 5 UNBUNDLED LOOP MODIFICATION INDEX STUDY DATE: 03/2000

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Eric McPeak Exhibit 5 Unbundled Loop Modification Index Study Date: 03/2000 · .

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130	FL	A 17.3		SERVICE INCOMIN		0.0400								i	
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H	NOTES TO A COST STUDY INDUT VERSION 2.0			ASSUMES	MANUAL SERVICE	INQUIRY PROCESS	
1	NORECORRING COST STOLT IN OT FTCH DON 2.4	LOAD COL/EQUIPMENT REMOVAL PER PAIR (designed circuit) - LOOP	S UP TO ISKET.				
1÷	Cheby Barladi 2000-2003						
H	DISCONSIGNATION LIFE (MOS)	NÁ					
H	Ciacolaiter coortier en z hisself				1 .		
	ETATE-	FL.					I
Ť	COST EL EMENT E:	A 17.1					
1 in				WORKTIN	IES SHOWN ARE IN	HOURS	
Ť	and the second sec						-
F			1			FIRST	ADUIL
1 10	DESCRIPTION	WORK CENTERS / WORK ACTIVITIES	SME	<u></u>	FIRST INSTALL	DISCONNECT	
		CRSG/Acci Team receives Service Inquiry (SI) from CLEC, forwards to OSP	16				
		for handking Once OSPE responds with Estimated Completion Date (ECD).	l	00000	0.0500		
11	SERVICE INQUIRY	CRSG follows up w/OSPE unit job is completed	Interconn Svcs.	SUWC	. 0.000	· · · · · · · · · · · · · · · · · · ·	+ ·
			1				
		1			1		
1		It CRC measure St validates for encurany & processes for billing	Interconn Svca	230X	0 1000		
12	SERVICE INQUIRY	OSPE receives SI from CRSG, verifies load colifectionent locations in plats			1		1
		(Conjugation)	Network	JG57	0.2000		1
13	PENGINEEMING	OSPE codes assigns tob number and returns SHo CRSG (Clencal)	Network	WS10	0 3000		1
H		AFIG receives job from OSPE and posts records	Network	4M1X	0.1000		
1	ENGINEERING	Underground Application (99%) - Load Coll/Equipment Removal		[.
1	manager and the second s	OSP Construction sets up manholes (2 hrs sa.), opens/closes splices (1 hr.)					
1.0	CONNECT & TURN-UP TEST	deloads pairs (1 1/2 hr) (Assumes 2.1 load colls removed.)	OSPC	420X	0.6505		·
1		Burled/Aeriel (10%) - Loed Coll/Equipment Removal					
H ^m		OSP Construction set-up (1 tr); opens/closes splices (1tr); delonds pairs (1	ŧ.				
1 15	CONNECT & TURN-UP TEST	1/2 hr.) (Assumes 2.1 load colls removed.)	OSPC	420X	0 0735		
20	TRAVEL	OSP Construction trevels to load coll/equipment sites	OSPC	420X	0 0900		
121				1		4	
- H≑			1 .				
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H-	ABOUNT INVITE	l				1	
12	1) Loope less than 1977, contain an average of 2.9 load co	STANDARD STANDARD	· · · · · · · · · · · · · · · · · · ·	1		1	1
12	2) Connect & Lum-up Less worktimes are to modiny fempe	The second	1	1 .		L	
1 23	· · · · · · · · · · · · · · · · · · ·						

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	A		·	ASSUMES	MANUAL SERVICE	INCURY PROCESS	1
27	NONRECURRING COST STUDY INPUT - VERSION 2.0		REATER THAN INKET.				
20	UNBUNDLED LOOP MODIFICATION	LOAD COIL/EQUIPMENT REMOVAL PER PAIR (designed circuit) - LOOP	a chester treve total t	1 1	••••		
29	Study Period: 2000-2002						
130	DISCONNECT LOCATION LIFE (MOS.):	N/A	ł				
31	STATE:	FL	· ·	WORKTIN	CE SHOWN ARE IN	HOURS	·
Hi;	COST ELEMENT #:	A17.2		THURSDAY IN			
h		· · · · · · · · · · · · · · · · · · ·		• •	· · · · · ·	FIRST	ADDTL
٣			ent	JEC	FIRST INSTALL	DISCONNECT	INSTALL
34	DESCRIPTION	WORK CENTERS / WORK ACTIVITIES	19775				
F		CRSG/Acct Team receives service inquiry (SI) both CLEC, knows to to				ţ	1
1		ICCD) COSC follows up wOSPF unit lob is completed. Upon completion of	4			1	
1		ich CRSG notifies CLEC that loop is conditioned and sends SI to LCSC for				Į	
		processing	Interconn Svcs	SDWC	0.5000		
Ъ	SERVICE INCURAT	LCSC receives SI, validates for accuracy & processes for billing	Intercons Svcs	230X	10000		
P	SERVICE INCOMM	OSPE receives SI from CRSG, researches load coll/equipment locations in	blabuarb	1057	2 0000		
3	ENGINEERING	plats (Engineering)	Network	WSIO	3.0000		1
15	ENGINEERING	OSPE codes, assigns job number and returns SI to CRSO (Clarical)	itietwork	4MIX	1.0000		
3	ENGINEERING	Arig receives to from Users and posts records.		1			
4		Underground Approximation (Jury) - Cold Cold Equipment relation	1 .				
F	1	(Sar Construction are op manual (2 to a), opening opening (1 to p	OSPC	420X	9 9225		0 472
4	CONNECT & TURN-UP TEST	Reviet/Anniel (10%) - Lond Coll/Equipment Removal		1			
4	and a second second	OSP Construction set-up (1 hr), opens/closes splice (1 hr.); deloads one pair	-				0.053
1.	COMPLET & TURN UP TEST	(9 min)	OSPC	420X	0.7525	and a set of	····· 0.082
H	TDAVE	OSP Construction travels to load coil/squipment sites	OSPC	420X	0000		
H				· -		· · ·	
H					•		
E	ASSIMPTIONS			1		1	1
E	1 111 cone greater than 18Kit. Contain an average of 3.5 los-	d colls/equipment.					
E	C I Cooke & and I not could be a set of the			<u> </u>		<u>_</u>	<u></u>

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Page 4 of 6

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		В	c	D	E	F	G
-	A REPORT OF A REPO	· · · · · · · · · · · · · · · · · · ·		ASSUMES	MANUAL SERVICE	INCLURY PROCES	5
1.00	INVITE CORRECTOR HODE CATION	BRIDGED TAP REMOVAL PER PAIR (designed circuit)	1	1		Į	
H				1			
1	DISCONNECT LOCATION LIFE (MOS.):				1		1
1 20				1	t	1	· ·
) ^음	STATE:		1	WORKTIN	AFS SHOWN ARE B	HOURS	
55	COST ELEMENT #:	A.17.3		1.00	1	1	
150	· · · · · · · · · · · · · · · · · · ·	·			· ·	+· -	TOTAL WORK
1	DERODINTION	WORK CENTERS / WORK ACTIVITIES	SME	JFC	INITIAL VISIT	REVISIT	TIMES
1		CRSG/Acci Team receives Service Inquiry (SI) from CLEC; forwards to					
1		OSPE for handling Once OSPE responds with Estimated Completion Date		1		1	ļ
		(ECD) CRSG follows up w/OSPE until job is completed. Upon completion of	4	-			
		job, CRSG notifies CLEC that loop is conditioned and sends SI to LCSC for		1			
58	SERVICE INQUIRY	processing	Interconn Svcs.	SDWC	0 0500	0 0100	0.0600
59	SERVICE INQUIRY	LCSC receives SI, validates for accuracy and processes order.	Interconn Syct	230X	0.1000	0 0200	0 1200
		OSPE receives SI from CRSG, ventiles bridged tap locations in plats					0.2400
60	ENGINEERING	(Engineering)	Network	1991	0 2000	0.0400	
01	ENGINEERING	OSPE codes, assigns job number and returns SI to CRSG (Clerical)	Network	WS10	0 3000	0.0600	0.3600
82	ENGINEERING	AFIG receives job from OSPE and posts records	Network	4M1X	0.1000	0.0200	0 1200
63		INITIAL BT REMOVAL		· · · -			
04		Underground Application - Bridged Tep Removal (1 Bridged Tep)		i			
1	· · · · · · · · · · · · · · · · · · ·	OSP Construction removes bridged tap. (Selup-2 hrs: open/close splice-1			1		0.0750
65	CONNECT & TURN-UP TEST	hr., remove bridged tap-,75 hr. }	OSPC	420X	0.3750		01/00
66		Burled/Aerist - Bridged Tap Removal (2 Bridged Taps)	L				+ · · · ·
		OSP Construction removes bridged taps (2) (Selup-1 hr; operviciose spice	-	4002	0.6500		0.5500
67	CONNECT & TURN-UP TEST	hr , remove bridged (ap- 75 hr)			0.5500		
68		20% ADDITIONAL BT REMOVAL	1.			· ·	
69		Underground Application - Bridged Tap Removal (.57 Bridged Tap)		4	. . .		1
		OSP Construction removes bridged tap (Setup-2 tra: open/close spice-1	0000	4207	1	0.0503	0 0503
120	CONNECT & TURN-UP TEST	hr.; remove bridged lap- (5 fr.)		1	1		1
71		Burled/Aerial - Bridged Tep Removal (1.33 Bridged 1809)		· • • • • • • • • • • • • • • • • • • •	· · · · · · · · · · · · · · · · · · ·		h
 _		OSP Construction removes bridged taps (2) (Setup-1 re, operationse space	OSPC	420X	1	0.0732	0 0732
H ⁴	CONNECT & TORONOP TEST	Int. remove bridged rap. 15 m 1	OSPC	420x	0.0500	0 0100	0 0600
10	IRAVEL	OSP Construction wavers to bradged talk sites		1			1
14		and the second		-+			· [· · · ·
75	ASSUMPTIONS:		• · · · · · · ·	· · ·	· · · · · · · · · · · · · · · · · · ·		
78	5) S bridged tape will be removed initially; removal of 2 add	itional bridged taps may be necessary (20%)			+		1
17	2) OSP Construction spends 45 minutes to remove each br	diged lap.					h
78	3) One-third of all bridged taps are underground; two-third	a are either buried or serial.					ŧ ·
79	(4) Worktimes are divided by ten, sesuming times are for br	toged tap removal on ten pairs.					1

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<u> </u>				0 1	F 1	F	G
<u> </u>	A	8	Ļ,				
H	NONRECURRING COST STUDY INPUT - VERSION	-	· ·				
F.	UNBUNDLED LOOP MODIFICATION-RECOVERY	· ·		1	· · · •		
۲÷	DRECOMMENT LOCATION LIFE (MOS)-	AV &			· · ·		
H	Disconnect Evantion Life (most).		· ·				
1 ñ	STATE:	FL			Į		
۱Ť	COST ELEMENT #:	A.17.4					
17		1		WORKTIMES SHO	WN ARE IN HOUR	•	
	· · · · · · · · · · · · · · · · · · ·						
10	DESCRIPTION of A.17.1	WORK CENTERS / WORK ACTIVITIES	<u>şmç</u>	I IFC	FIRST INSTALL	FIRST DISCONNECT	ADDILINGIALL
		CRSG/Acct Team receives Service Inquiry					
		(SI) from CLEC; forwards to OSPE for	1				
1		handling Once OSPE responds with	1		1		
Ι.		Estimated Completion Date (ECU), CRSG		COMIC	0.0500		
11	SERVICE INQUIRY	TOROWS UP W/USPE Griss job is completing	INGICIANT DACA	SUNC			
L		1					1 1
L		LCSC receives SI, validates for accuracy &	1				
12	SERVICE INQUIRY	processes for billing	Interconn Svcs	230X	0 1000		
<u> </u>		OSPE receives SI from CRSG, verifies load	1	1			1
		coll/equipment locations in plats.					
1 13	ENGINEERING	(Engineering)	Network	JG57	0 2000		1 · · · · ·
		OSPE codes, assigns job number and relum	4				1 1
[14	ENGINEERING	SI to CRSG (Clerical)	Network	WS10	0.3000		1 ····· · · · · · · · · · · · · · · · ·
15	ENGINEERING	AFIG receives job from OSPE and posts rece	diselwork	4M1X	0 1000		• • • • • •
16		Underground Application (90%) - Load Ca	VEquipment Re	moval			-
		OSP Construction sets up manholes (2 hrs		[· ·		1
		ea.); opens/closes splices (1 hr.); deloads					1 1
1		pairs (1 1/2 fr.) (Assumes 2 1 load cors	0000	4207	0.8506	1	
17	CONNECT & TURN-UP TEST	(removed.)	I Dancutel	-		••	1
18		Buned/Aerini (10%) + Loed Convequiprine	R PORTOVA	ł		í	1
	1	(USP Construction set-up (111) upersvouse	•			L	
	COMPLECT & TURNING TERT	(Accuracy 1 tool coils removed)	OSPC	420X	0 0735	ł	
<u>+"</u>	COMPECT & TORN-OF TEST	OSP Construction travels to load			···- · ··· ·	{	
1	TRAVEL	col/equipment sites	OSPC	420X	0.0500	i]
H				1			
1.55	DEMAND FOR CONDITIONING	Source	2000	2001	2002		
捞	Contract of Contraction			1		[
124	FL - Incoming KDSL Capable Loops-2000	Interconnection	9.018	4,743	3,552		
25	Cumulative Incoming Loops==	> =SUM(C24:E24)	17,313	L		L · · · · · · · · · · · · · · · · ·	
26							
27	FL - Incoming Loops Requiring Conditioning	Interconnection	3.949	1,978	1,481	· · · · · · · · - · · · - · · · - · · · - ·	
28	Cumulative Incoming Conditioned Loops==	> =SUM(C27 E27)	7,408				-h
29			∔ -· · <u>-</u>	i	· · · · - · -		
30	# Loops Conditioned Not Recovered Elsewhere	See Assumption 1	· · · · · · · · · · · · · · · · · · ·		h · ·	t ·	
31		4			4	· · · · · · · · · · · · · · · · · · ·	
32	WorkTimes for One Conditioning:		0.050	h · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		
			0 100				
H€		-+E13	0 2000		1		
H	ENGINEERING	=+E14	0.300	Ó		I	
1 37	ENGINEERING	=+E15	0.100	D		I	
30	CONNECT & TURN-UP TEST	++E17	0 850	5			
1 39	CONNECT & TURN-UP TEST	=+E19	0 073	5			• · · · · · •
40	TRAVEL	**E20	0.050	0			
41		1		1		↓	
42	Amount To Be Recovered from xDSL Loops:		+			↓	
43	SERVICE INQUIRY	*((C33*\$C\$30)*\$C\$28)\$C\$25	0.0650	<u></u>			· · · · · · · · · · · · · · · · · · ·
14	SERVICE INCURY	=[(C34'\$C\$30)'\$C\$28}\$C\$25	· · · · · · · · · · · · · · · · · · ·				····••••••••••••••••••••••••••••••••••
145	ENGRIEERING	*((C30 \$C330) \$C328)\$C325	0.3423				• · · · · · · · · ·
40	ENGINEERING		0.513				
14	LENGINEERING	-((031 20330) 20320720225				· · · · · · · · · · · · ·	
148	CONNECT & TURN-UP TEST		1.400			+ - - - - -	1
49	TRANEL & UNIVER IESI		0.0055	· · · · · · · · ·		1 · · · · · · · · · · · ·	
129		-110-0 \$1301 \$1468844-925				· · · · · · · ·	1
L ²			+			1 · · · ·	1
123	Annual form	• · · · · · · · · · · · · · · · · · · ·	-		1		
1	11 Of the 18 lines being conditioned on a field via	it: 2 will be recovered through LINE soulic	stions, 4 from B5	T; and 4 leftover	1		
H	2) Dement of xDSI, capable loops includes ADS	L. HDSL. and UCL	T		1	1	
1.00	The particular of sports coupe motores population						

DOCKET NO. 990649-TP ERIC MCPEAK EXHIBIT NO. 6 UNBUNDLED LOOP MODIFICATION INDEX STUDY DATE: 03/2000 Index Study Date: 03/2000

[A	B	С	D	E	F	G	Н	I	J	К
1			· · · · · · · · · · · · · · · · · · ·	ļ							
2	Index Shee	et									~ <u></u>
3	Study Perio	od: 2000-20	02							1	
4										. –	
5										· · · · · · · · · · · · · · · · · · ·	
6]										
7											
8		1					<u>.</u>				
9]		Sheet Name:		Description:					L	
10			Index		Unbundled Loop I	Modification				l	
11		N	Ionrecurring Labor		CALCULATOR IN	IPUT FORM	1 - NONRE		ABOR TIM	ES	
12]		WP100		UNBUNDLED LO	OP MODIF	ICATION				
13]		WP200		UNBUNDLED LO	OP MODIF	ICATION-R	ECOVERY			
14									- - -		
15											
16											
17											
18											
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	<u> </u>		<u>ب</u>							•					
1.11		CALCULATO	DR INPUT F	ORM - NONRECURRING LABOR TIN	ILS .				1	! I					
2		·								i ł					
H		In an interio													
LU		Instructions		and the second second second second	<u>.</u> .	:		L					1		
14		1. Use this w	vorksheet to	p record nonrecurring labor times to	be input in	to the Calculat	or calculation	.		ļ					
171		2 44	te ehowe -	re per unit le.o., per cali, per logo, p	er MOU).										
H		A DE ANDUN		- per trim tergi, per tent, per toup, p	and rows			1							
1.01		13. Input data	i, by Cosi E	rement, leaving no blank lines. On a	NEXT IOW										
71		after last N	ne of data.	type END in Cost Element Column.	1										· · · · · -
H			n this form	should be cell-referenced to shuth a	vorknaners	t									
L		H. AR Gata O		BUDBID DE CEUMEIERENICES (O SUDON I	a current au			· ·							
191		5. Do NOT a	change colu	imns, headings, sheet name.	1			1l							
10		6 Use colu	MALE FLG.	when cost element has a single non	recurring of	ost; use colum	ns H, I, J, & K I	for elements v	vith a first						
нщ								tequent popp	curdes set						
111		and add	nional nonn	ecurring cost; use columns L, M, N	a U 107 9167	NAINS MAIL THE	onual anu subi	admin Hound		· ···- · · · ·	· · ·				t
12		7. Input Cos	st Element L	life (in months) on first row of data	for each cos	st element. It i	s vol uecessa	ry to repeat or	each Hne.	1					
101				(' · · · · · · · · · · · · · ·		1						t			
Little		h		and the second											
14		11						• • • •					• · · · · · · · · · · · ·	• - · · · · · · · ·	
151	Study N	lid-Point Date	(Mos.)	6/1/01				1			· · · · · · · · ·	L			
Hind I		1 1			1			1		1		1			
L ^a	.	ł - ł			1 • •	(Fax 1)	I and MDL	Sired .	Einet	Additional	Additional	Initial	Initial	Subsequent	Subsequent
17		1		1	1 1	(FOL086 A	wone wet	6.1121	FITM	- Control of the	Classic	dia non Mant	Discours	Installation	Disconstat
16		1	Cost	4		Installation	Disconnect	Installation	Disconnect	nomaliation	Disconnect	wistamation	DISCONNECT	metanation	LANGCOLMARCE
H		Com	Element	Labor Expense Description	JECI	Time	Time	Time	Time	Time	Time	Time	Time	Time	Time
L ^u		COM	C. 1917 1917	Contraction Procision		-	hterre	(Manua)	Mount	(Moure)	Hours	(Hours)	HOURS	(Hours)	rioura
20	State	Element #	Life (Mo)	(Limited to 25 characters)	Payband	(HOUTE)	HOURS	[nours]		- mixinal	TINNIA.	i ward		- arriver as	
21	ÊL.	A 17.1		SERVICE INQUIRY	SDWC	0.0250		1	_				I		
H	E1 -	1		CEDUCE INCHIEV	2302	0.0250		1		1				1	L
Ъ	<u>r</u>	12:14		DENVICE INCOMM		0.000		+ · ··				T · · · · ·		1	
23	FL	A.17.1		ENGINEERING	13357	0.0500							· · · · · · · · · · · · · · · · · · ·		
24	FL	A.17.1		ENGINEERING	WS10	0.0200									
H#H	- · ·	fi i i i		ENCINEEDING	ANTY	0.0200		1							
P	<u>.</u>	A.V.1		ENGINE ENING		0.0200	· · ·						1	1	1
26	FL	A.17.1		CONNECT & TURN-UP TEST	420X	0.0416		4					· · · · · ·		1
27	FL	A 17 1		CONNECT & TURN-UP TEST	420X	0.0388		1		1				1	
H				TOAVE	400V	0.0400		1-							
140	r u	1441		INAVEL	-200	0.0100		1 00000					1		1
29	FL	A.17.2		SERVICE INQUIRY	SOWC			0.2500					· · ·		1
30	FI	A 17 2		SERVICE INQUIRY	230X			0.2500							1
нщ				ENGINEEDING	10.67			0.0200		1			1		
31	٢L	A.11.Z		ENGINEERING	3057			0.0200	}				1	1	1
1 32	FL	A.17.2		ENGINEERING	W\$10			0.0200		1		· ·	4		+
1 33	Fi	A 17 2		ENGINEERING	4M1X			0.0100			1	1			1
н				CONNECT & TUDILUD TEST	4207			0 1455		1					
34	FL.	A.17.2		CONNECT & TURN-UP TEST	+2UA		}							1	
35	FL	A.17.2		CONNECT & TURN-UP TEST	420X			0.0216							
1.00	FI	A 12 2		TRAVEL	420X			0.0100							
F		17.5		PERMICE INCOMENT	COMMO	6 6970		1			1				1
37	ri.	A.17.3		SERVICE INCORT	SUWC	0.0230		4. · ·		· · · · · · · ·		• • • • • • • • • • • • • • • • • • • •	1	1	1
38	FL	A.17.3		SERVICE INQUIRY	230X	0.0250									
30	FI	A 17 3		ENGINEERING	JG57	0,0200									
HH I		1.1.1		ENCINEEDING	WEID	0.0100		1			1	1	}		1
40	PL.	14.17.3		ENGINEERING	14910	0.0100		+					1		
41	FL	A.17.3		ENGINEERING	4M1X	0.0100		L							+
12	FL	A 17.3		CONNECT & TURN-UP TEST	420X	0.0500					1				• ······
HH	· · · ·		•	COMMECT & THEM HE TEET	4201	0.0290					1			1	
لك ا	<u>.</u>	12.11.2		CONNECT & TURNEUF (C3)	7200	0.0360	· · · · · ·	4			f		1	1	
44	FL	A.17.3		CONNECT & TURN-UP TEST	420X	0.0000		4	· ·				• • · · · · · · · · ·	1	1
45	FI	A 17 3		CONNECT & TURN-UP TEST	420X	0.0000		1							I
H		A 17 9		TRAVEL	4207	0,0020		1	1	1					
12	<u>r.</u>	A. 17.3		IN TEL	140A			0.000	· · · · · · · · · · · · · · · · · · ·	0.005	at		1		
1 47]	FL	A.17.4		SERVICE INQUIRY	SDWC			0.0428		0.000		+		· · · · · · · · · · · · · · · · · · ·	
40	FI	A 17 4		SERVICE INQUIRY	230X			0.0428		0.171	2				
Ē		1		ENCINEEPING	1067		t	0.0054		0.342	3				
يعير	<u>.</u> r	0.164		ENGINE ENTRY			-	1		0613	āt ·· —— —— ·		1	1	
50	FL	A.17.4		ENGINEERING	WS10			0.0342		0.313		· · · · · ·	· · · · · · · ·	1	
51	FI -	A 17 4		ENGINEERING	AMIX	1		0.0342	2	0.171	2	1		4	1
H-1		1717		COMMECT & TIMMING TEST	4202	1 · · ·	1 -	0.071		1.455	7		1		
192	<u>r</u> t	A.1/.4		COMMECT & TURN-UP TEST	-204	· · · _ ·	+			0.496		1 11 -	1		
1 53	FL	A.17.4		CONNECT & TURN-UP TEST	420X			0.0664		V. 123	¥				
54	FI	1× 17 4		TRAVEL	420X			0.0171	1	0.085	6]	1		1	
HH	· · · · ·			·····	1 ··· ·· ··		1	-	1		T	1	1		1
155					4		f	4	1			t			1
56					1	1	1	1	1		1				414 10 11
1 57		1	-	· · · · ·	1		1	1	1		1		1		1.
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[58]					1							ł	1 · ···	1 .	
59					1			1	1		1 · _ ·				· · · · ·
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1991		1.000 -		1 A A A A A A A A A A A A A A A A A A A			· · · · ·	1	+ ·-·			1	1		
61		END			1	L								1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1
62															
Hill I		+		Manian up of 25 antring and C		1	1	1			1	I			
63		-		Maximum of 20 entries per Cost Eler			l								

____ G F E ā A ASSUMES MANUAL SERVICE INQUIRY PROCESS 1 NONRECURRING COST STUDY INPUT - VERSION 2.0 LOAD COIL/EQUIPMENT REMOVAL PER PAIR (designed circuit) - LOOPS UP TO 16KFT. 2 UNBUNDLED LOOP MODIFICATION 3 Study Period: 2000-2002 4 DISCONNECT LOCATION LIFE (MOS.): N/A 5__ .__ 6 STATE: 7 COST ELEMENT #: FL A 17.1 WORKTIMES SHOWN ARE IN HOURS 8 FIRST ADDTL FIRST INSTALL DISCONNECT INSTALL ŞME JFÇ WORK CENTERS / WORK ACTIVITIES 10 DESCRIPTION CRSG/Acci Team receives Service Inquiry (SI) from CLEC; forwards to OSPE for handling. Once OSPE responds with Estimated Completion Date (ECD), CRSG follows up w/OSPE until job is completed. SDWC D 0250 Interconn Svcs. 11 SERVICE INQUIRY . 0.0250 Interconn Svcs. 230X LCSC receives SI, validates for accuracy & processes for billing 12 SERVICE INQUIRY OSPE receives SI from CRSG, venifies load colleguipment locations in plats 0.0500 JG57 (Engineering) 13 ENGINËËRING OSPE codes, assigns job number and returns SI to CRSG. (Clerical) WSIO 0 0200 14 ENGINEERING Networt . . AFIG receives job from OSPE and posts records 4MIX 0.0200 Network 15 ENGINEERING Underground Application (90%) - Load Col/Equipment Removal ____ OSP Construction sets up manholes (2 hrs ea.); opens/closes splices (1 hr.); deloads pairs (1 1/2 hr.) (Assumes 2.1 load coils removed.) 0.0416 420X OSPC 17 CONNECT & TURN-UP TEST Burled/Aerial (10%) - Load Coll/Equipment Removal 18 OSP Construction set-up (1 hr); opens/closes splices (1hr.); deloads pairs (1 0 0368 OSPC 420X 1/2 hr) (Assumes 2.1 load coils removed.) 19 CONNECT & TURN-UP TEST -----0 0100 20 TRAVEL OSP Construction travels to load coil/equipment sites OSPC 420X 20 TRAVEL 21 22 23 ASSUMPTIONS; 24 1) Loops less than 16Kft. contain an average of 2.1 load colls/equipment. 25 2) Connect & Turn-Up Test worktimes are to modify ten pair. 20 - - ----. - ····· ·

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Study	Date	03/2000

		A	C	Ď	E	F	G
-		Y		ASSUMES	MANUAL SERVICE	INQUIRY PROCESS	
1#	INUNRECORKING COST STUDY INPUT - VERSION 2.0	LOAD COLUCOURDENT DEMOVAL DEP PAIR (designed circuit) - LOOP	S GREATER THAN 18KFT.				
20	IONBUNDLED LOOP MODIFICATION	ECAD COLEEDIN MENT REMOVAL FER FAIR (Besignad Carbon) - 2000		1		1	
29	Study Period: 2000-2002				• • • •		
30	DISCONNECT LOCATION LIFE (MOS.):	N/A					
31	STATE:	FL		WORKTH			· ·
32	COST ELEMENT #:	jA.17.2		WORKIN	123 30000 AKE 10	nooka	
33					· · -	EIDET	ADOTI
	1		lour	HEC.		DISCOMMECT	INSTALL
34	DESCRIPTION	WORK CENTERS / WORK ACTIVITIES	346	1 <u>*</u>	That matrice	CHOOL NIEDI	
		CRSG/Acci ream receives service inquiry (si) from CLEC, rowards to		1			
		USPE for nanowing. Once USPE responds with Estimated Completion Date		1	ļ		
		(ECD), CRSG tollows up woose e unit job is completed. Upon completed					
20		omoression	Interconn Svcs	SDWC	0.2500		
1	SERVICE INDURY	LCSC receives SI, validates for accuracy & processes for billing	Interconn Svcs	230X	0.2500		
٣		OSPE receives \$1 from CRSG, researches load collequipment locations in		1			1
37	ENGINEERING	plats. (Engineering)	Network	JG57	0.0200		
30	ENGINEERING	OSPE codes, assigns job number and returns SI to CRSG (Clerical)	Network	WS10	0.0200	↓ <u> </u>	
36	ENGINEERING	AFIG receives job from OSPE and posts records.	Network	1.4M1X	0.0100		
40		Underground Application (90%) · Load Col/Equipment Removal					
		OSP Construction sets up manholes (2 hrs.); opens/closes splice (1 hr.);			0.4455		
11	CONNECT & TURN-UP TEST	deloads one pair (9 min.)	USPC	•20X	0.1400	<u></u>	
42		Burled/Aerial (10%) • Load Coll/Equipment Removal				· · · · · · ·	·
Г		OSP Construction set-up (1 hr); opens/closes splice (1 hr.); deloads one pair	0000	4207	0.0216		1
43	CONNECT & TURN-UP TEST	(9 min.)		420¥	0 0100		
4	TRAVEL	OSP Construction travels to load cowequipment siles.	0340				
45		and the second s		1.1			1
46		 A second sec second second sec					1
12	ASSUMPTIONS:		1		1	· ·	
4	1) Loops greater than 18Kft. Contain an average of 3.5 load	coils/equipment.	4		-		
49			<u> </u>				

Index Study Date 03/2000

DOCKALING BROWNOT	3	
Evic McDask Exhibit 6		
Fue test offer Farmer e		
Unbundled Loop Modification		
Unbundled Loop Modification		

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	A	в	C	D	E	F	G
50	NONRECURRING COST STUDY INPUT - VERSION 2.0			ASSUMES	MANUAL SERVICE	INQUIRY PROCESS	1
51	UNBLINDLED LOOP MODIFICATION	BRIDGED TAP REMOVAL PER PAIR (designed circuit)	1				
57	DISCONNECT LOCATION LIFE (MOS.)	IN/A		ŀ			
52	Processing to the section of the sec						1
22	STATE-	FL				1	
27	COST ELENENT A	A.17.3		WORKTIM	ES SHOWN ARE IN	HOURS	1
53	WWWI ELEMENT #.						
20	and the second			1	-		TOTAL WORK
57	DESCRIPTION	WORK CENTERS / WORK ACTIVITIES	SME	JFC	INITIAL VISIT	REVISI	TIMES
Ξ÷-		CRSG/Acci Team receives Service Inquiry (SI) from CLEC; forwards to					
		OSPE for handling. Once OSPE responds with Estimated Completion Date			1		
		(ECD), CRSG follows up w/OSPE until job is completed. Upon completion of	1				
		pool, Unable on the second second second and second and second and second secon	Intercont Svcs.	SOWC	0.0250	0.0000	0.0250
20		I CSC receives SL validales for accuracy and omnesses order.	Intercono Svcs.	230X	0.0250	0.0000	0.0250
28		OSPE receives SI from CRSG, verifies bridged tap locations in plats.		-	1		1
60	ENGINEERING	(Engineering)	Network	JG57	0.0200	0.0000	0.0200
61	ENGINEERING	OSPE codes, assigns job number and returns SI to CRSG (Clerical)	Network	WS10	0.0100	0.0000	0.0100
67	ENGINEERING	AFIG receives job from OSPE and posts records.	Network	4M1X	0.0100	0.0000	0.0100
6		INITIAL BT REMOVAL					
a.		Underground Application - Bridged Tap Removal (1 Bridged Tap)					
ا آر ا		OSP Construction removes bridged tap. (Setup-2 hrs; open/close splice-1					0.0500
65	CONNECT & TURN-UP TEST	hr.; remove bridged tap75 hr.)	OSPC		0.0500		0.0000
66		Buried/Aerial - Bridged Tap Removal (2 Bridged Taps)					
		OSP Construction removes bridged taps (2). (Setup-1 hr; open/close splice-	0690	4202	0.0340		0.0380
67	CONNECT & TURN-UP TEST	1 hr.; remove bridged tap/5 hr.)	Uarc	4200			
68		20% ADDITIONAL BT REMOVAL				1	
69		Underground Application - Bridged Tap Removal (.5/ Bridged Tap)					
70	CONNECT & THRNUR JEST	by remove holdeed tap-75 hr.)	OSPC	420X	1	0.0000	0.0000
1	CONTRACT & LOTING F IEST	Buriad/Aerial - Bridged Tan Removal (1.33 Bridged Tans)					
Р	a a 🔤 a 👘 a a a a a a a a a a	OSP Construction removes bridged taps (2). (Setup-1 hv; open/close splice-					
72	CONNECT & TURN-UP TEST	1 hr.; remove bridged tap75 hr.)	OSPC	420X		0.0000	0.0000
73	TRAVEL	OSP Construction travels to bridged tap sites.	OSPC	420X	0.0020	0.0000	0.0020
74						· · · · · · · · · · · · · · · · · · ·	
75	ASSUMPTIONS:						
76	1) 3 bridged taps will be removed initially; removal of 2 addi	ttional bridged taps may be necessary (20%)					
77	2) OSP Construction spends 45 minutes to remove each brid	dged lap.				· · · · · · · · · · · · · · · · · · ·	
78	3) One-third of all bridged taps are underground; two-thirds	are either buried or aerial.					
79	(4) Worktimes are divided by ten, assuming times are for brit	dged tap removal on ten pairs.				<u> </u>	

					n	_	F	T	F	Т		G
	A	В	C	1	0					-		
	NONRECURRING COST STUDY INDUT - VERSION	1.0		1		1						
+	UNBUNDI ED LOOP MODELCATION RECOVERY		1	1		ł						
-	Study Pariod: 2000.2007							Í				
3	DISCONNECT LOCATION LIEE MOR 1	NA										
+	UISCOMECT LOCATION LIFE (MUS.):							1		+ -		
5	INTATE.	FL										
6	DOOT PLEMENT	A 17.4					h in i			ł		•• •
1	COST ELEMENT #:			WC	ORKTIMES SHOWN	ARE IN H	OUR5					
.0												
9		· · · · · · · · · · · · · · · · · · ·							FIRST	~		ADOTI BIETAL
1		WORK CENTERS / WORK ACTIVITIES	SME		JEC		FIRST INST	NLL .	DISCONNE	51	š	APPLIC MOLALL
10	DESCRIPTION of A.17.1	CIEC (4 and Team restrict Service Longing (SI) from CLEC: forwards in		1								
		Of the function of the other of the second state of the second sta										
1		Core to national. Once Core responds with completent	Interconn Svcs.	SD	DWC			0 0250				
11	SERVICE INQUIRY	Date (ECU), CRSG IDROWS UP W/CSPE Units (DD is completed.		· []		1		1				
				1								
		1050 receives SI validates for accuracy & processes for billing	Interconn Svcs.	23	30X			0.0250	·	-		
12	SERVICE INQUIRY	OCOE receives SI from CBSG verifies that colleguinment incations in							1			
Г		Core receives at those one of the conception of the second of the	Network	30	G57			0 0500				
13	ENGINEERING	parts. (Choweevery)	Network	W	V\$10			0.0200	ł			
14	ENGINEERING	USPE codes, assigns job number and returns and CR3G. (Crencal)	Network	41	MIX			0.0200		1		- <u>-</u>
15	ENGINEERING	Ar to receives non mom users and posts records										
18		Underground Application (90%) - Load Colve durpment remioval										
		OSP Construction sets up mannoles (2 nrs ea.); opens/closes spices (1	OSPC		420X			0.0416				
17	CONNECT & TURN-UP TEST	hr.); deloads pairs (1 1/2 hr.) (Assumes 2.1 load cons removed.)							1			
18	Ŋ.	Puried/Aertal (10%) • Load Coll/Equipment Removal					-					
Ē		OSP Construction set-up (1 hr); opens/closes spices (1hr.); deloads	0500		420X			0.0388				
19	CONNECT & TURN-UP TEST	pairs (1 1/2 hr.) (Assumes 2.1 load coils removed.)	05PC		420X	1		0.0100				
20	TRAVEL	OSP Construction travels to load coll/equipment sites		· .		· • •			1	1		
L.	N			000	··· ·	2004		2002	1			
H#	DEMAND FOR CONDITIONING	Source	20	000	L.			1144		1		
H#	Concerned and a second second		- ·· ··· • • •			742		3 552		. 1	1	
H÷	EL - Incoming xDSI Canable Loops 2000	Interconnection	9,0	BIN	· · · · · · · · · · · · · · · · · · ·			0,002			-	
H#	Cumulative forming 1 (news)	=SUM(C24:E24)	17,3	13						1		
L£	Competite maning coupart				· · · · · · · · · · · · · · · · · · ·	07=		1.404		ł	1	
H ⁴	EL Incomion Lange Description Contilioning	Interconnection	3,9	¥49		,w/0		1.401		1		
2	Cumulative incoming Conditioned I come	=SUMA(C27 E27)	7,4	408								
L ⁴										• •		
L ^A	Visit Laure Constituent blat Desputant Elevatore	See Assumption 1		-4						• • • •	-	
130	V IN LOOPS CONDICION NOT RECOVERED EISEWHERE										· ·	
3	Manda Timore for Date Care differences								· · · · ·			
13	2 protectimes for the contributing:		0.0	1250							· ·	
3	3 SERVICE INCOLKY	x4F12	0.0	3250								
13		e+F13	0.0	2500								
13	5 ENGINEERING		0.04	1200					· · · · ·			
3	6 ENGINEERING		0.0	0200							-	
13.	7 ENGINEERING		0.0	0416							- ·	
13	B CONNECT & TURN-UP TEST		0.0	0388								
3	ONNECT & TURN-UP TEST		0.0	0100							1	
4	O TRAVEL										ł	
4	1	the second se		1							÷	
4	2 Amount To Be Recovered from xDSL Loops:		0.0	1128								
4	3 SERVICE INQUIRY	=[(C33*\$C\$30)*\$C\$28)/\$C\$25		W28							-	
4	4 SERVICE INQUIRY	=((C34*\$C\$30)*\$C\$28)/\$C\$25		1856								
4	5 ENGINEERING	=((C35*\$C\$30)*\$C\$28)/\$C\$25	0.0	1342								
4	6 ENGINEERING	=((C36*\$C\$30)*\$C\$28)/\$C\$25		142								
F	7 ENGINEERING	=((C37*\$C\$30)*\$C\$28)/\$C\$25		₩,	- · · · · -				T			
E	ECONNECT & TURN-UP TEST	=((C38*\$C\$30)*\$C\$28)/\$C\$25	0.0					· ·			1	
E	S CONNECT & TURN-UP TEST	=((C39*\$C\$30)*\$C\$28)\$C\$25	0.0	1000							1	
H	DITRAVEL	=((C40'\$C\$30)'\$C\$28)/\$C\$25	0.0	siti i							1	
H					· · · · · · · · · · · · · · · · · · ·							
H	The second se								1		1	
F	A LAssumptions:										1	
F	5 1) Of the 19 lines being conditioned on a field via	sit; 2 will be recovered through UNE applications, 4 from 8ST; and 4	l leftover								1	

55 1) Of the 19 kines being conditioned on a field visit; 2 will de vectore 56 2) Demand of xDSL capable loops includes ADSL, HDSL, and UCL

DOCKET NO. 990649-TP ERIC MCPEAK EXHIBIT NO. 7 BELLSOUTH LOOPS AVAILABLE FOR CONDITIONING

Docket No. 990649-TP Eric McPeak Exhibit No. <u>7</u> BellSouth Loops Available for Conditioning

BELLSOUTH LOOPS AVAILABLE FOR CONDITIONING

Assumptions	
Average Cable Size	
[CS] Loops < 18kft	600
[CS] Loops > 18kft	200
Number of Cables/Location	
[#C] Loops < 18kft	1
[#C] Loops > 18kft	1
Fill Factor	
[FF]	58%
Voice Growth	
[VG]	5.60%
Penetration	
[PEN]	99%
Additional Line Multiplier	
[AL]	1.50

Calc	ulations		
Spare	Pairs		
[SP]	Loops < 17.5kft	[CS * (1-FF)]	253
[SP]	Loops > 17.5kft	[CS * (1-FF)]	84
Filled	Pairs		
[FP]	Loops < 17.5kft	[CS * FF]	347
[FP]	Loops > 17.5kft	[CS * FF]	116
Rese	rve Pairs		
[RP]	Loops < 17.5kft	[FP * (VG*PEN)]	19
[RP]	Loops > 17.5kft	[FP * (VG*PEN)]	6
Set A	side Pairs		
[SAP]	Loops < 17.5kft	{RP*AL}	29
[SAP]	Loops > 17.5kft	[RP*AL]	10
Pairs	Available For Condi	itioning/Cable	
[PAC]] Loops < 17.5kft	SP-SAP	224
[PAC] Loops > 17.5kft	SP-SAP	75
Pairs	Available For Cond	itioning/Location	
[PAL]	Loops < 17.5kft	[PAC*#C]	224
[PAL]	Loops > 17.5kft	[PAC*#C]	75

DOCKET NO. 990649-TP ERIC MCPEAK EXHIBIT NO. 8 PRODUCT LITERATURE

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No





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Accessories





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4005-DPM/16 16-Pair Pluggable Module 요 합



Pair testing is easy



9708-10/TR Module for half-tap splicing

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9700-DWP/TR Module for water resistant* splicing

9700-10/TR Module for two-wire straight splicing i

9700-C/TR Super Mini Module

Description Pkg. kg (lbs.)/ctn. Min. order