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June 18, 2003

BY HAND DELIVERY
Ms. Blanca Bayó, Director
The Commission Clerk and Administrative Services
Room 110, Easley Building
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, Florida 32399-0850

Re: Docket Nos. 981834-TP and 990321-TP

Dear Ms. Bayó:

Enclosed for filing is an original and fifteen copies of Jeffrey A. King's Surrebuttal Testimony filed on behalf of AT&T Communications of the Southern States, LLC and TCG South Florida, Inc.

AT&T is filing this Surrebuttal Testimony in Response to Commission Staff Witness Rowland Curry's Rebuttal Testimony filed in this proceeding on April 18, 2003. Although the Surrebuttal Testimony date was moved to September 23, 2003, as per the Commission's Order Approving Agreement (PSC-03-0702-FOF-TP) to bifurcate the policy and pricing issues in this proceeding and the subsequent CASR change, AT&T is responding to Mr. Curry's Rebuttal on Issue 6B, which will be addressed at the August 12, 2003, hearing on the policy issues in this proceeding (Issues 1-8).

Please acknowledge receipt of this letter by stamping the extra copy of this letter "filed," and return to me at the time of filing. Thank you for your assistance.

RECEIVED & FILED
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Sincerely yours,

Tracy W. Hatch

AUS
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ECR 5
GCL 1
OPC
MMS
SEC 1
OTH

TWH/las
Enclosure
cc: Parties of Record

BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

SURREBUTTAL TESTIMONY OF

JEFFREY A. KING

ON BEHALF OF

AT&T COMMUNICATIONS OF THE SOUTHERN STATES, LLC AND TCG SOUTH FLORIDA, INC.

DOCKET NO. 981834-TL

JUNE 18, 2003

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

SURREBUTTAL TESTIMONY OF JEFFREY A. KING

ON BEHALF OF
AT&T COMMUNICATIONS OF THE SOUTHERN STATES, LLC
AND TCG SOUTH FLORIDA, INC.

DOCKET NO. 981834-TL

JUNE 18, 2003

Q. PLEASE STATE YOUR NAME, TITLE, AND BUSINESS ADDRESS.

A. My name is Jeffrey A. King. I am a District Manager in the Local Services & Access Management organization of AT&T Corp. ("AT&T"). My business address is 1200 Peachtree Street, N.E., Atlanta, Georgia 30309.

Q. FOR WHOM ARE YOU FILING TESTIMONY IN THIS PROCEEDING?

A. I am testifying on behalf of AT&T Communications of the Southern States, LLC, and TCG South Florida, Inc. (collectively referred to as "AT&T").

Q. HAVE YOU PREVIOUSLY TESTIFIED IN THIS OR OTHER REGULATORY PROCEEDINGS?

A. Yes. I previously filed direct testimony on behalf of AT&T regarding the policy issues (Issues 1-8) in this proceeding. Additionally, I have provided cost and pricing issues with public service or utility commissions in Georgia, Florida, Tennessee, North Carolina, Louisiana, Alabama, Puerto Rico and before the Federal Communications Commission ("FCC").

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. My testimony is offered in rebuttal to Mr. Rowland R. Curry's recommendations on the method of charging for DC Power (Issue 6B).

ISSUE 6B: COLLOCATION POWER CHARGES – FUSED VERSUS USAGE BASED

Q. WHAT DOES MR. CURRY RECOMMEND FOR THE METHOD OF CHARGING FOR DC POWER?

A. Mr. Curry recommends the use of Verizon's method for measurement, which Verizon refers to as *load* amps but is administered using the manufacturer's published List 1 drains as the basis for charges.

Q. WHAT DOES MR. CURRY STATE FOR HIS REASONS TO NOT RECOMMEND THE FUSE-BASED METHOD?

A. At the bottom of page 2 and the top of page 3 of his testimony, Mr. Curry states, *"Parties have raised significant arguments on both sides of the fused-amp issue. The "lumpy" nature of fuse increments will tend to overstate the load current requirements in many instances, and will result in higher charges for ALECS."*

Q. DO YOU AGREE WITH MR. CURRY'S ASSESSMENT?

A. I agree with Mr. Curry's statement in part. However, I believe additional explanation regarding the inaccuracy of fuse-based charges is warranted. Mr. Curry focused his evaluation on the economic considerations of a cost study. An important ingredient of a properly conducted cost study is its ability to account for the actual application in real life. One such fallacy in the application of fuse-

based prices is that there is no allowance for over-sizing of fuses due to rounding. The opportunity for a fuse to be sized at exactly the specified amount without having to round it up is remote, indeed.

Mr. Curry explains later in his testimony that BellSouth makes an adjustment in the model to account for the fuse being "*sized at 150% of the maximum amperage requested.*" This calculation alone ensures that the ALEC will ALWAYS be overcharged when using fuse-based charges.

Q. PLEASE EXPLAIN HOW THIS ADJUSTMENT WILL ENSURE THAT AN ALEC IS ALWAYS OVERCHARGED.

A. BellSouth bases their 150% adjustment on the BellSouth Engineering & Installations Standards Page 2 [TR 73503-10], which states that the fuse shall be rated at least 150% of the manufacturer's **List 2** drain specifications. [See the definition of List 2 Drain versus List 1 Drain and usage below.] Since a properly conducted cost study is based on usable capacity, the method for charges must logically correlate with the usable capacity of the power plant. There is no accurate means to predict the correlation between fused amps and used amps, just as there is no accurate predictable correlation between List 2 and used amps. By accurate, I mean one that meets the Docket quality standards.

Q. IS THERE ANY WAY TO ILLUSTRATE THE RELATIONSHIP FOR ENGINEERING PURPOSES SO THAT IT CAN BE UNDERSTOOD HOW FAR APART THESE TERMS ARE?

A. Yes. But first I will review the definition of the terms that are used.

- ***Usage*** – The number of amps that are actually used by the equipment in question.

- ***Power plant capacity*** – The number of used amps that the plant is capable of serving simultaneously.

- ***List 1 drain*** – The manufacturer of the equipment specifies the maximum amount of current the equipment will draw when it is fully equipped with the most demanding circuit boards and all options are functioning under **normal** power plant operating conditions as List 1 Drain.

- ***List 2 drain*** - The manufacturer of the equipment specifies the maximum amount of current the equipment will draw when it is fully equipped with the most demanding circuit boards and all options are functioning under **distressed** power plant operating conditions as List 2 Drain. Distressed power plant conditions means that the AC power source has failed and the operating (float) voltage of the batteries is at the point of failure for most equipment (normally –42 volts).

- ***Fuse size*** – The secondary fuses at the BDFB (Battery Distribution Fuse Bay) and the primary fuses at the PDB (Power Distribution Board) are sized to protect the power cables from overheating. They are generally sized at 125% - 150% of the List 2 drain of the circuit when it is loaded to its ultimate capacity.

One of AT&T's most experienced Sr. Power Engineers helped me understand the relationship of the terms in a power plant from an engineer's prospective. Here is how he laid it out assuming the power plant had a *usage capacity* rating of 10,000 amps.

- ***Usage capacity*** – 10,000 amperes
- ***Maximum amount of primary fusing*** – 36,000 amperes
- ***List 2 drain based on 36,000 amps of primary fusing*** – 24,000 amperes
- ***List 1 drain based on overall central office build-out (75% of List 1)*** – 18,000 amperes
- ***Actual usage based on 18,000 amps of List 1*** – 6-9,000 amps

It is very easy to see that the relationship between usage and the fuse size is much higher than 150%. In this example it is in the 400-600% range based on the primary fuses.

Q. IS THERE ANOTHER FACTOR THAT CAN CAUSE THE RELATIONSHIP BETWEEN THE USAGE AND FUSE TO BE DIFFERENT THAT WAS NOT EXPLAINED BY MR. CURRY?

A. Yes. BellSouth enforces a policy on ALECs that opt to install their own BDFB to connect to the BellSouth PDB at 225 amp fuse size and bases the charges to the ALEC on that primary feeder fuse. This is a standard power configuration for

AT&T, and it has been our experience that the fuse sizes run in excess of 1000% of actual usage.

Q. DO YOU AGREE WITH MR. CURRY'S ASSESSMENT ON PAGE 3 THAT THE VERIZON METHODOLOGY REPRESENTS A WORKABLE SOLUTION TO THE CONCERNS OF BOTH THE INCUMBENT CARRIERS AND THE ALECS?

A. I agree with Mr. Curry that the Verizon method *could* be an alternative if appropriately applied, however, it should not be the only option. Mr. Curry states that Verizon allows the ALECs to order power at whatever '*load*' that they desire, according to the drain specifications of the equipment. The statement itself is an oxymoron and is a gross misrepresentation of the Verizon procedure. The ALECs cannot order *whatever power they want* and still specify it as the *manufacturer's specification*. If the Manufacturer's List 1 drain is 22 amps, then the ALEC must order 22 '*load*' amps on the application.

Q. PLEASE EXPLAIN WHAT YOU MEAN BY '*LOAD*' AMPS.

A. In reality, *'load'* amps should represent the actual amount of current being drawn from the power plant. It is important to realize that Verizon misuses the term to mean published List 1 drain. This misuse of the term can cause a misunderstanding of the accuracy of their application and provisioning procedure. As I explained earlier, published List 1 drain is not the same as usage or *load.*

Q. PLEASE EXPLAIN THE VERIZON METHOD OF CHARGES AND WHAT PROBLEMS IT CAUSES FOR AN ALEC.

A. The Verizon method of ordering power is to order half of the List 1 drain on the A feed and half on the B feed. That is the basis for the charges, and as I explained earlier, it results in excessive overcharges because of the difference between usage and List 1 drain. Verizon also allows the ALEC to specify the fuse size that will be connected on each leg up to 2.5 times the List 1 drain of that feed. The 2.5 times limitation causes the ALEC fuse to be too small to meet power engineering standards.

Q. PLEASE EXPLAIN WHAT YOU MEAN BY POWER ENGINEERING STANDARDS.

A. The AT&T standard for fuse sizing is to multiply the total manufacturer's published List 2 drain times 125-140% and provide that size fuse for both feeds. BellSouth's standard [TR 73503-10] is to use 150% of List 2 to size the fuse for both feeds. The net result of Verizon is to use 150% of List 1. Here is how the fuses will be sized using the three methodologies for a 40 amp List 1 and 53.3 amp List 2 (based on the relationships previously described).

- **AT&T**: 53.3 times 1.25 = **66.6** Lower limit, 53.3 times 1.4 = **74** is the upper limit, so the fuse would be sized at **70** amps.
- **BellSouth**: 53.3 times 1.5 = **79.95** so the fuse would be sized at **80** amps.
- **Verizon**: 20 (40 divided by 2) times 2.5 = **50** amps, so the fuse would be sized at **50** amps.

As you can see, the Verizon fuse will interrupt at 50 amps which is prior to the equipment reaching the List 2 specification. This means that if the Verizon power plant was in distress and eventually failed while the equipment was operating totally on the A or B lead, the ALEC fuse would interrupt prematurely and when the power was restored, the ALEC equipment would not restore until the fuse is manually reset. In both the AT&T & BellSouth scenarios, the equipment would stop drawing current prior to the fuse interruption and when power is restored, the ALEC equipment will restore as well.

Q. MR. CURRY STATES ON PAGE 3 OF HIS TESTIMONY THAT THERE DOES NOT APPEAR TO BE AN EFFECTIVE MEANS BY WHICH ACTUAL USAGE CAN BE PRECISELY MEASURED OR MONITORED. DO YOU AGREE WITH THIS ASSESSMENT?

A. No. The Illinois Public Service Commission ordered the use of meters for the purpose of measuring DC power consumption. It was successfully implemented and the power is measured in accumulated kilowatt hours. This is as precise as any power consumption method in use today. However, that level of precision is not necessary in this effort. The Tennessee Regulatory Authority ordered that measured service for DC power be implemented, and arrangements are being made to read the AT&T BDFB ammeter to determine the usage on a quarterly basis. Qwest of Minnesota has agreed to charge AT&T for power usage based on the semi-annual remote readings their power engineers routinely take as a function of monitoring their power plants. Additionally, the Georgia Public Service Commission has ordered that usage based DC power charges are to be an

ALEC option and has ordered BellSouth to prepare a cost study to determine the provisioning costs. There are multiple options for determining the usage amount for charges.

Q. ON PAGE 3 MR. CURRY RECOMMENDS THAT THE VERIZON METHODOLOGY BE IMPLEMENTED BY ALL THREE ILECS AT LEAST AS AN ALTERNATIVE. DO YOU AGREE?

A. I agree that it should be an alternative, but not the only one. Obviously there are situations where an ALEC will not have enough equipment at a location to warrant buying a meter and the ALEC does not have a BDFB installed (that contains a meter). In those instances I believe the ALEC should have the option of resorting to a proxy of usage based charges such as List 1 adjusted downward appropriately to compensate for the disparity between List 1 drain and actual usage. That proxy should be in the 33 – 50% range of the manufacturer's published List 1 drain.

Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A. Yes.

CERTIFICATE OF SERVICE
DOCKET NOS. 981834 & 990321

I HEREBY CERTIFY that a copy of the foregoing has been furnished via U.S. Mail this 18th day of June, 2003, to the following parties of record:

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