

REBUTTAL TESTIMONY

OF

KATHY STEWART

TELECOMMUNICATIONS DIVISION

ILLINOIS COMMERCE COMMISSION

DOCKET NO. 05-0675

February 22, 2006

1 Q. **Please state your name and business address.**

2

3 A. My name is Kathy Stewart and my business address is 527 East Capitol Avenue,  
4 Springfield, Illinois 62701.

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6 Q. **By whom are you employed and in what capacity?**

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8 A. I am employed by the Illinois Commerce Commission as an Engineering Analyst  
9 in the Telecommunications Division.

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11 Q. **Did you previously file direct testimony in this proceeding?**

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13 A. Yes.

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15 Q. **What is the purpose of your rebuttal testimony in this proceeding?**

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17 A. The purpose of my rebuttal testimony is to address issues raised by various  
18 CLECs intervening in this proceeding.

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20 Q. **In Joint CLEC witness, Mr. Steven Turner's, Direct Testimony (lines 758 –**  
21 **763) he states: "If AT&T-Illinois was so concerned about not being fully**  
22 **compensated, then why did it not go to the CLEC's and/or Commission**  
23 **before 4<sup>th</sup> Quarter 2005, and then only to suggest a tariff change that would**

24 **eliminate use of power metering, rather than the preferred approach – find**  
25 **the most cost-effective measuring alternative. AT&T-Illinois’ actions, or**  
26 **more accurately, inactions are unreasonable.” Do you agree with his**  
27 **statement?**

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29 A. No, I do not.

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31 **Q. Why do you disagree with this statement?**

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33 A. Illinois Bell Telephone Company (or AT&T Illinois) scheduled a meeting with  
34 Commission Telecommunications Engineering staff as early as May 31, 2002, to  
35 discuss the inaccuracies associated with power metering for CLEC collocation  
36 arrangements.

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38 **Q. Was the meeting in May, 2002, the only time when the company met with**  
39 **staff regarding this issue?**

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41 A. No. There were several other meetings between staff and the company  
42 regarding power metering.

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44 **Q. Do you have dates of those meetings?**

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46 A. My records are somewhat incomplete, but I have documentation from additional  
47 meetings in January, 2005 (meeting with then CLEC AT&T personnel) at the  
48 Canal Street central office; February 14, 2005 (meeting with IBT personnel) at  
49 the Franklin Street central office; and March 28, 2005 (meeting with IBT  
50 personnel). In addition, IBT provided Commission staff with a copy of the  
51 Telcordia study in November, 2004.

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53 **Q. What was the purpose of these meetings?**

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55 A. Generally, the purpose of these meetings was for IBT to present information to  
56 staff regarding the inaccuracies noted with return-side shunt power metering, for  
57 staff to conduct its own tests, and for options to be explored regarding other  
58 options for power metering.

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60 **Q. Mr. Turner also makes the following statement in his testimony :**

61 **“As I noted earlier in this testimony, the metering of DC power**  
62 **(through the measurement of DC current at various points**  
63 **within the central office) has always been a capability relied on**  
64 **by DC power engineers during my 20 years of working in the**  
65 **telecommunications industry. Specifically, all BDFBs that**  
66 **have been manufactured in the last 20 years have the ability to**  
67 **meter the current flowing through any of the feeds coming into**  
68 **the BDFB. Monitoring this current flow is vital in that the DC**  
69 **power engineer must ensure that no particular feed on a BDFB**  
70 **is overloaded.<sup>1</sup>”**

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72 **Do you concur with Mr. Turner’s statement?**

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<sup>1</sup> Joint CLEC Ex. 1 Steven E. Turner lines 943 – 949.

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A. Mr. Turner’s statement is partially accurate in that BDFBs (Battery Distribution Fuse Bays) are *capable* of measuring the total current flow *if* they are equipped with the necessary meters. In my experience of performing central office inspections throughout the state, I have found that the main power boards (Power Board Distribution) have meters that facilitate taking readings on circuits. These circuits generally provide power to a BDFB located on a different floor of the central office building. The BDFB is a fuse bay that allows for a large circuit to be divided into smaller circuits providing power to multiple locations. The BDFB may be used for more than one CLEC collocation. Staff, however, has found that the BDFBs generally do not have meters to facilitate reading the power being consumed on the individual leads.

**Q. Mr. Turner makes reference in this testimony to 83 Ill. Adm. Code Part 785.55(a)(1) beginning at line 1375 and gives his interpretation of this section of the code. Is his interpretation of the first part of this section regarding cable diameter and fuse ratings as they relate to the cabling correct?**

A. Yes. Mr. Turner is correct in his interpretation. If the smallest cable is rated for capacity of 60 amps, the circuit must be fused at a level no greater than 60 amps.

96 **Q. Mr. Turner, in subsequent statements, makes an interpretation of the**  
97 **second part of that section regarding the requirement for fusing at 200% of**  
98 **the maximal operational consumption of the feed. Is his interpretation of**  
99 **the second part of this section correct?**

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101 A. No, it is not.

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103 **Q. At lines 1410 – 1415, Mr. Turner states that because the rule is relative to**  
104 **fusing of cables, the “maximal operational consumption” must mean the**  
105 **maximum consumption of DC power that the CLEC anticipates placing on**  
106 **the cable over the life of the service arrangement. Is his interpretation of**  
107 **the rule accurate?**

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109 A. No. The fusing requirement for no more than 200% of the operation  
110 consumption on the circuit refers to the peak draw of the circuit. For example, a  
111 circuit in operation that is drawing 20 amps of DC power must be fused at no  
112 greater than 40 amps. The potential for draw on the circuit is not taken into  
113 consideration in determining the appropriate fuse size. If additional equipment is  
114 placed in service on that circuit, it may be necessary to replace the fuse with a  
115 larger fuse at some time in the future.

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117 **Q. How was this section of the code developed?**

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119 A. It was determined by Telecommunications Engineering staff as well as company  
120 representatives that a 200% allowance on fuse sizes would allow for any surges  
121 in DC power usage (*i.e.*, the “maximal operational consumption”) that might occur  
122 in the event the peak draw measurements were underestimated while still  
123 providing some protection against shorts that might cause potential fire hazards.

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125 **Q. Were there other participants involved in the proceedings that developed**  
126 **the Code Part 785 rules?**

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128 A. Yes. In addition to Commission staff and company representatives, the State  
129 Fire Marshal's Office, Illinois Emergency Management Agency, and  
130 representatives from the Fire Chiefs Association were all present at the  
131 workshops.

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133 **Q. Did you attend these workshops?**

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135 A. Yes, I did.

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137 **Q. Were you present during the discussions that developed these rules?**

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139 A. Yes, I was.

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141 **Q. Are you responsible, in your day to day job duties, for interpreting these**  
142 **rules?**

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144 A. Yes, I am.

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146 **Q. Is it your belief that the 200% fusing requirement is based upon power**  
147 **consumption on a circuit or potential future consumption?**

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149 A. It is my interpretation and belief that fusing levels are to be set at no more than  
150 200% of the power consumption on a circuit at present peak usage. Future  
151 potential consumption on a circuit is not the determining factor in fuse sizing.

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153 **Q. Does this conclude your rebuttal testimony?**

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155 A. Yes, it does.

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