BEFORE THE
PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Complaint of	)	
McLeodUSA Telecommunications	)	
Services, Inc., against Qwest Communications	)	Docket No. 06-2249-01
For Enforcement of Commission-	)	
Approved Interconnection Agreement	)	

REBUTTAL TESTIMONY

OF

ROBERT J. HUBBARD

ON BEHALF OF

QWEST COMMUNICATIONS

May 12, 2006

I. IDENTIFICATION OF WITNESS

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND POSITION WITH QWEST CORPORATION.

A. My name is Robert J. Hubbard. I am employed by Qwest Corporation ("Qwest"), as a Director within the Technical and Regulatory Group of the Public Policy Organization representing the Network Organization. My business address is 700 West Mineral Avenue, Littleton, Colorado 80120.

Q PLEASE DESCRIBE YOUR WORK EXPERIENCE, AND PRESENT RESPONSIBILITIES.

A. I am a Director of Technical Support in Qwest's Network Public Policy Organization. This group is responsible for the development of strategies to implement the unbundling of Qwest's network as required by the Telecommunications Act of 1996 ("the Act"). I provide technical support regarding unbundling issues for the Qwest Network and Public Policy departments.

I have over 35 years experience with two Regional Bell Operating Companies, Qwest and Indiana Bell Telephone Co. (Indiana Bell), in their network departments. I worked for over 11 years at both Indiana Bell and Qwest as a cable splicer and as a cable repairman involved in all aspects of splicing and repairing copper cables. Subsequently, I moved into the engineering department at Qwest, working as an outside plant design engineer, designing copper and fiber facilities, and analog and digital carrier systems. I then went into the Network Planning Department as an outside plant planner, where I planned for future jobs involving fiber cable

placement and upgrades to the existing outside plant network. In 1997, I moved into my present job as a Director in the Interconnection Planning Department, where I am responsible for ensuring compliance with the Telecommunications Act and federal and state regulations while continuing to maintain network integrity. My responsibilities include providing litigation support before the Federal Communications Commission ("FCC") and state commissions on issues relating to network elements and architectures for wireline networks. In addition, I represent Qwest in the Network Reliability and Interoperability Council ("NRIC"), a body created by the FCC, to address the reliability and interoperability of wireline networks, broadband, and emerging cyber-networks. Specifically, I currently serve on an NRIC committee addressing issues relating to Broadband and Homeland Security within the United States. I have been a member of two previous NRIC committees and have Best Practice recommendations published on the FCC web site for NRIC in December, 2001, and December, 2003.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to provide a response to the testimony filed by Sidney L. Morrison and Michael Starkey on behalf of McLeodUSA Telecommunications Services, Inc. ("McLeod") as it relates to the claim that Qwest should be charging the "Power Plant" rate element based on periodic usage measurements.

III. RESPONSE TO ALLEGATIONS BY MCLEOD

Q. BRIEFLY DESCRIBE THE ISSUE RAISED BY MCLEOD.

A. The actual issue raised by McLeod is a narrow question of contract interpretation. Qwest and McLeod entered into a Power Measuring Amendment to their interconnection agreement ("ICA") in order to revise the method that Qwest uses to charge McLeod for power usage. McLeod claims, incorrectly that Qwest should be charging the "Power Plant" rate element based on periodic usage measurements as well. That is not what the DC Power Measuring Amendment says. While I am not a lawyer, the DC Power Measuring Amendment's plain language provides for the charges for only one rate element to vary based on measured usage: the "-48 Volt Usage Charge [that] applies on a per amp basis to all orders of greater than sixty (60) amps." The DC Power Measuring Amendment does not affect the charges for "Power Plant", and does not identify those charges as ones which will be reduced based on measured consumption.

Moreover, the rate for the Power Plant element was established by the Commission in a cost docket – that rate element is, to my understanding, not directly at issue in this case. If McLeod wanted to challenge the methodology by which that rate was developed, it should have participated in that cost setting proceeding.

Q. IN THE DIRECT TESTIMONY OF BOTH MR. MORRISON AND MR. STARKEY DO THEY PORTRAY AN ACCURATE PICTURE OF THIS PROCEEDING?

A. No. Both of these gentlemen have glossed over the real issue and have provided quite a bit of testimony that clouds the real reason that we are before this Commission. The real reason that we are here is to discuss the language in the Power Measuring Amendment. Mr. Morrison and Mr. Starkey seem to want to focus on how Qwest designs a power plant in the real world. However, this "actual cost" methodology is both irrelevant to the contract dispute, and inconsistent with TELRIC methodology. This commission has already ruled that Qwest may charge for the power plant based on a forward looking, least cost TELRIC methodology, based on the number of amps the CLEC specified in its order for power distribution. Furthermore, as described in the testimony of Mr. Easton, nothing in the DC Power Measuring Amendment changes the pricing structure for the Power Plant rate element.

Q. IF THAT IS THE CASE, WHAT TOPICS WILL YOU ADDRESS IN YOUR TESTIMOMY?

A. I will address some of the incorrect statements by Mr. Morrison and Mr. Starkey in regard to how Qwest designs and engineers power in order that the record in this case be clear on those issues, even though Qwest does not believe that the engineering issues are the appropriate focus of this contract dispute case.

Q. HOW DO QWEST ENGINEERS DESIGN A POWER PLANT WITHIN A QWEST CENTRAL OFFICE?

A. Qwest Engineers take the total requirement of power needs into consideration when designing the power plant for a central office. What I mean by this is that the

engineer factors in, not only the power requirements of Qwest equipment but, also, collocators (CLECs) within that central office. For example when a CLEC provides Qwest with a power requirement, Qwest assumes that the order is based on List 2 Drain. Mr. Morrison believes that Qwest designs a Central Office based on List 1 drain, and that is correct for Qwest equipment. However, the reality of designing for CLEC needs is that Qwest does not know, and cannot reasonably forecast, the draw that CLEC equipment will take, so Qwest uses the ordered amount to size the power plant capacity made available to CLECs. Mr. Morrison recognizes this reality – in his direct testimony at lines 240 – 249 he explains how two identical pieces of equipment, serving the same number of customers, could have very different power requirements.

Q. DOESN'T MCLEOD TELL QWEST WHAT ITS ANTICIPATED USAGE WILL BE WHEN IT PLACES AN ORDER?

A. No, McLeod does not. Indeed, based on Mr. Morrison's testimony, McLeod is likely unable to do so. And, since McLeod cannot forecast its own usage, Qwest, who has less information about McLeod's business plans, certainly cannot do so either. Under those circumstances, the only reasonable amperage to include in power plant planning is the ordered amount, as that is the amount that the CLEC has said, via its order, that it might at some point need.

Q. UNDER WHAT CIRCUMSTANCES WOULD THE CLEC NEED OR USE THE ORDERED AMOUNT OF POWER?

A. A good example of a situation in which the ordered amount of power could be required, would be if Qwest had a complete power failure within a central office, and the batteries fully discharged. During power outages, the power to the telecommunication equipment is supplied by batteries. For a time, a diesel engine would be supplying additional backup power for the batteries. Once the power backup plant is running solely off battery power, the batteries begin to discharge. Once the batteries are no longer sufficient to power the equipment, the equipment would shut down. After power is restored, CLEC and Qwest equipment would draw significantly more power than List 1 drain, approaching or reaching a List 2 drain, as the equipment is restarted. Qwest designs the power plant so that CLEC and toll equipment within the central office will have the List 2 drain available to them, ahead of even Qwest's own switch.

A central office power plant is sized on the total requirement of every piece of equipment that has a power drain. Indeed, under the List 2 drain situation described above, each and every piece of McLeod's equipment in the central office would have List 2 drain power capacity available to it.

Q. WHAT POWER PLANT CAPACITY HAS MCLEOD ORDERED FROM QWEST?

A. Confidential Exhibit RJH_1 shows the initial power orders that McLeod submitted in Utah. Qwest has taken these requests and combined the McLeod and other CLEC power orders along with the equipment demand that Qwest has and sizes the power plant to accommodate all power requirements.

Q. CAN YOU PROVIDE THE ACTUAL POWER USAGE THAT MCLEOD HAS TODAY AND IS BEING BILLED FOR?

A. Yes. That information is also shown on Confidential Exhibit RJH_1. That Exhibit shows the two most recent usage measurements for each central office in which McLeod is collocated. These measurements are taken at approximate six month intervals.

Q. PLEASE DESCRIBE THE CORROLATION BETWEEN ORDERED AMOUNTS AND THE ACTUAL USAGE?

A. Actually there is no correlation, and that is a critical point. The ordered amount bears no relationship to the consumed amount, thus supporting Qwest's contention that the only prudent course of action at the time the order is placed is to engineer in accordance with the ordered amounts. As noted above, this is also the amount of power that Qwest makes available for McLeod's use.

Q. **MR. MORRISON, ON PAGE 24 LINES 511 – 518 STATES THAT A COLLOCATOR ORDERS THE POWER THAT IT ULTIMATELY WILL NEED BUT NOT THE AMOUNT IT WILL NEED IMMEDIATELY. PLEASE COMMENT ON THIS REMARK.**

A. This may be true, but for purposes of Qwest's engineering practices, it is irrelevant. This is because Qwest has no idea of McLeod's business plan or when they expect to have fully carded bays and customers. Qwest fulfills the power requirements that McLeod provides to Qwest in its order. If McLeod submits an order under the ICA for 180 amps of power then Qwest will reasonably use and rely upon that order to design the power plant and make certain that the ordered amount of power is available to McLeod.

Q. MR. MORRISON TALKS ABOUT "AS ORDERED" VS "AS CONSUMED" POWER IN ITS COMPLAINT. WHAT IS THE DIFFERENCE BETWEEN THE TWO?

A. The "as ordered" is the total requirement that McLeod has asked Qwest to be able to provide and Qwest has sized its power plant to accommodate that ordered amount. This power plant is billed at a constant according to the amount of amps specified in McLeod's initial order for power distribution. The "as consumed" rate is the measured rate for actual power that traverses the power cables that feed the McLeod collocation site. This is a separately billed rate.

Q. MR. MORRISON CLAIMS ON PAGE 27 LINES 594 TO 599 THAT A POWER PLANT IS SIZED ON AN "AS CONSUMED" BASIS. IS MR. MORRISON CORRECT IN HIS UNDERSTANDING?

A. No. The reality is that power plant is sized based on the amount of power that Qwest, McLeod and other CLECs forecast/order. When McLeod placed the orders for power shown on Confidential RJH_1, in the 1999-2000 timeframe, there was no McLeod usage to take into account, nor could McLeod forecast any usage. Thus, power plants to meet the CLEC orders must be based on the ordered amount.

Q. ON PAGE 28 MR. MORRISON TALKS ABOUT LIST 1 AND LIST 2 DRAINS. ARE HIS ASSUMPTIONS CORRECT?

A. Most of his assumptions are correct. However, Mr. Morrison asserts that List 1 drain corresponds with the "as consumed" capacity. This is incorrect. In general, actual consumption will fall below List 1 drain, sometimes far below that level. Mr. Morrison acknowledged this earlier in his testimony, at pages 19, lines 399 – 402, where he states that List 1 drain is the amperage when the equipment is operating normally at maximum capacity. Since the equipment will only rarely operate at maximum capacity, any suggestion that charging for power plant on a measured, or "as consumed" basis would be equivalent to charging for List 1 drain is clearly incorrect.

Q. MR. MORRISON, AT PAGES 39-40 LINES 889-924 STATES THAT QWEST DOES NOT NEED TO ENGINEER TO THE AS-ORDERED LEVEL BECAUSE MCLEOD PROVIDES QWEST WITH A GREAT DEAL

OF INFORMATION ABOUT THE COLLOCATED EQUIPMENT AND THE POWER DRAWS SO THAT QWEST SHOULD BE WELL AWARE OF MCLEOD'S POWER USAGE. COULD YOU PLEASE COMMENT ON THAT?

A. Mr. Morrison's testimony suggests that McLeod provides a great deal of information to Qwest. However, a careful reading shows that McLeod does not. Items (1) – (5) at lines 898 – 901 are really no more than a description of the equipment that McLeod will collocate. In Qwest's experience with McLeod, some of this equipment is equipment that Qwest is not familiar with. Additionally, the testimony is more significant in what it does not list – it does not state that McLeod will provide a forecast of usage or growth. Rather, Mr. Morrison apparently expects Qwest to calculate or project such a number, when McLeod itself cannot do so. Indeed, earlier in this same testimony (page 10), Mr. Morrison made a point of explaining how two otherwise identical pieces of equipment could have very different power needs. Furthermore, any review of Confidential RJH_1 shows that the ordered amounts and the consumed amounts do not have any discernable correlation.

Q. ON PAGE 42 LINES 967 TO 974, MR. MORRISON STATES THAT IN IOWA, QWEST CLAIMED THAT IF MCLEOD ORDERED 175 AMPS OF CAPACITY, QWEST WOULD DEFINITELY AUGMENT ITS DC POWER PLANT CAPACITY. WOULD YOU PLEASE COMMENT ON THIS STATEMENT?

A. Yes. What I meant by that statement is that the larger the order, the closer or more likely Qwest would be to augment its power plant. However, the more important point here is that any CLEC order for power entitles Qwest to charge its Commission-approved TELRIC rates. My understanding of these rates is that they do not necessarily relate to Qwest's real world experience, and that Qwest is not required to demonstrate that it actually constructed any power plant in response to an order for it to be entitled to charge those rates.

Q. ON PAGES 44 TO 46 LINES 998 TO 1063 MR. MORRISON DISCUSSES DECOMMISSIONING OF COLLOCATION SITES AND WHETHER QWEST REMOVES POWER PLANT EQUIPMENT. WILL YOU COMMENT ON THIS TESTIMONY?

A. Yes. Once again Mr. Morrison is confused on this issue. Mr. Morrison is correct, as reflected in Qwest data response, (McLeodUSA data request #5), that Qwest does not remove or reduce its Power Plant Capacity based on decommissioned collocations. McLeod's orders for power were in the 1999-2000 time frame when collocation was going strong and Qwest had a lot of requests for power. Since that time, Qwest has experienced a reduction in the number of operating collocators, thus, a reduction in the amount of drain on an existing power plant. However, this does not impact in any way the amount of power that McLeod has ordered, Qwest's obligation to provide capacity to meet that order, or McLeod's obligation to pay for that ordered amount.

Q. IF QWEST HAS SEEN A REDUCTION IN THE NUMBER OF COLLOCATORS AND A REDUCTION IN THE AMOUNT OF POWER NEEDED IS THERE AN AVENUE THAT MCLEOD CAN PROCEED THAT WOULD REDUCE THEIR POWER PLANT CHARGES?

A. Yes. McLeod has the ability to restructure their power requirement as addressed by Mr. Bill Easton through the Power Reduction offering and the Power Reduction with Reservation product offered by Qwest. McLeod has the option to reduce their power requirement through an augmentation to their original order, however, McLeod has not taken advantage of that option. McLeod seems to want to have the originally ordered amount of power still available to them but to reduce their Power Plant charges so that they pay for much less capacity than is available to them. McLeod's desire to only pay for what they use is in fact accomplished through the Power Measuring Amendment, which reduces the Power Usage charge to the measured amount.

Q. MR. MORRISON, ON PAGES 46 TO 50, DISCUSSES TYPICAL MCLEOD EQUIPMENT AND THE POWER DRAIN ASSOCIATED WITH THAT EQUIPMENT. DOES QWEST HAVE KNOWLEDGE OF THE TABLE IN FIGURE 6 AND MCLEOD'S ESTIMATED DC POWER DRAW?

A. This confidential chart must be internal to McLeod, because it has not been provided to Qwest previously. As stated by Mr. Morrison, line 1081, the "DC power amperage is based on actual power readings made by McLeodUSA". Because this information is not provided to Qwest, Qwest cannot use it or rely on it

to engineer its power plant facilities. When McLeod first ordered power from Qwest, McLeod did not even have equipment in their collocation sites to take readings on. Therefore Qwest had to assume that McLeod was ordering power based on their assumption that McLeod was going to serve a lot of customers and have a high degree of utilization of their equipment. This has not proven to be a correct assumption, but as discussed, McLeod has options available to order a lesser amount of power plant capacity. But, McLeod has not taken advantage of these offerings.

Perhaps more importantly, however, it appears as though McLeod's orders for 100 or more amps per central office would be significantly oversized if Figure 6 actually represents a typical McLeod collocation design, as indicated by Mr. Morrison. If this design is typical, there is no engineering reason why McLeod could not add power cables incrementally as it adds equipment in its collocation sites.

Q. ON PAGES 53 AND 54 MR. MORRISON DISCUSSES THE ISSUE OF STRANDED INVESTMENT, AND THAT AN ILEC WOULD NOT INVEST IN ITS DC POWER PLANT BASED ON MCLEOD OR ANY OTHER CLEC'S ORDER. IS THIS CORRECT?

A. No it is not. Qwest has an obligation and a requirement to build or invest in infrastructure to make available the required or ordered amount of power that McLeod and every other CLEC has ordered. In a world where Qwest controlled every piece of equipment within a central office and had no legal obligations to CLECs, Qwest would be able to design power as Mr. Morrison states. However,

because of CLECs' unforecasted power requirements, Qwest should and does reasonably rely on CLEC orders and make that ordered amount of power available.

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. Power plants are sized and built according to Qwest and CLEC demand. In other words, every element that is placed in a central office that draws power is taken into account and the power plant is sized for the peak demand. If McLeod ordered 100 amps, then Qwest will make sure McLeod has 100 amps of power plant capacity available to it. Once built, the power plant is not necessarily resized simply because demand decreases – Qwest does not reduce the ultimate capacity for McLeod just because they are not using the full 100 amps. On a usage basis, Qwest is only charging McLeod for measured usage at its collocation sites. Because McLeodUSA ordered 100 amps of capacity, Qwest must still maintain the ability to provide McLeod with 100 amps it ordered if necessary, and the "Power Plant" rate element is accordingly not prorated.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes it does.