

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

McLEODUSA TELECOMMUNICATONS SERVICES, INC.,)	Docket No. UT- 063013
)	
Petitioner,)	
)	
v.)	
)	
QWEST CORPORATION,)	
)	
Respondent.)	
)	

RESPONSE TESTIMONY

OF

TERESA K. MILLION

ON BEHALF OF

QWEST CORPORATION

JUNE 14, 2006

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1 **I. IDENTIFICATION OF WITNESS**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is Teresa K. (Terri) Million. My business address is 1801 California Street,
4 Room 4700, Denver, Colorado 80202.

5
6 **Q. PLEASE IDENTIFY YOUR EMPLOYER AND EXPLAIN YOUR POSITION
7 AND RESPONSIBILITIES.**

8 A. I am employed by Qwest Services Corporation, parent company of Qwest Corporation
9 ("Qwest"), as a Staff Director in the Public Policy organization. In this position, I am
10 responsible for directing the preparation of cost studies and representing Qwest's costs in
11 a variety of regulatory proceedings.

12
13 **Q. WHAT IS YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL
14 EXPERIENCE?**

15 A. I received a Juris Doctor from the University of Denver, College of Law in 1994 and am
16 licensed to practice law in Colorado. I also have a Master of Business Administration
17 from Creighton University and a degree in Animal Science from the University of
18 Arizona.

19
20 I have more than 22 years experience in the telecommunications industry with an
21 emphasis in tax and regulatory compliance. I began my career with Qwest (formerly
22 Northwestern Bell Telephone Company and then U S WEST, Inc.) in 1983. Between
23 1983 and 1986, I administered Shared Network Facilities Agreements between
24 Northwestern Bell and AT&T that emanated from the divestiture of the Bell System in

1 1984. I held a variety of positions within the U S WEST, Inc. tax department over the
2 next ten years, including tax accounting, audit, and state and federal tax research and
3 planning. In 1997, I assumed a position that had responsibility for affiliate transactions
4 compliance, specifically compliance with section 272 of the Telecommunications Act of
5 1996 (the "Act"). 47 U.S.C. § 272. In September 1999, I began my current assignment
6 as a cost witness. In this position, I am responsible for managing cost issues, developing
7 cost methods and representing Qwest in proceedings before regulatory commissions.
8

9 **Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY BEFORE THE**
10 **WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION?**

11 **A.** Yes. I submitted direct testimony regarding the recovery of OSS (Operational Support
12 Systems) costs in Part A of the cost docket (Docket No. UT-003013), as well as direct
13 and rebuttal testimony in Parts B and D of that docket. In addition, I have testified before
14 this Commission in Parts A, B and D.
15

16 **Q. HAVE YOU TESTIFIED BEFORE OTHER STATE REGULATORY**
17 **COMMISSIONS?**

18 **A.** Yes. I have presented cost testimony in TELRIC¹ cost proceedings before commissions
19 in Arizona, Idaho, Montana, New Mexico, South Dakota and Wyoming. In addition, I
20 have submitted testimony related to section 272 of the Act in Arizona, Colorado and
21 Nebraska, cost testimony in Colorado related to Operator Services, and in Arizona related
22 to the Arizona Price Plan proceeding. More recently I have filed cost testimony in
23 Colorado, Oregon and Utah in the Triennial Review Remand Order (TRRO) dockets.

¹ TELRIC is an acronym for "total element long run incremental costs."

1 costs for power plant, and decided that because the data is publicly available it was up to
2 McLeod to obtain the data for itself. Thus, Mr. Starkey's point in his introduction about
3 Qwest's refusal to provide the collocation cost study, like much of the remainder of his
4 testimony, is merely a poorly disguised attempt to make something out of nothing.

5
6 **Q. WHY DO YOU SAY THAT MR. STARKEY'S TESTIMONY ATTEMPTS TO**
7 **MAKE SOMETHING OUT OF NOTHING?**

8 A. Mr. Starkey devotes much of his testimony trying to convince this Commission that
9 Qwest's collocation cost study supports McLeod's interpretation of the *Power Measuring*
10 *Amendment*. He provides meaningless mathematical formulas and an illogical table to
11 support this argument. In the end Mr. Starkey admits that he is not challenging the power
12 plant rate as established by this Commission, nor whether the rate is TELRIC compliant.
13 Rather, Mr. Starkey is challenging whether Qwest's application of the power plant rate is
14 appropriate, not only under the *Power Measuring Amendment*, but in general. Clearly
15 this complaint is not about the way Qwest has charged the power plant rate in the past.
16 This complaint is about whose interpretation of the *Power Measuring Amendment*
17 (McLeod's or Qwest's) is correct under the current contract. Mr. Starkey's testimony
18 does nothing to advance the Commission's understanding of that issue.

19
20 My testimony will show 1) that Mr. Starkey's conclusion that Qwest's cost study is based
21 on power usage is wrong, 2) that Mr. Starkey's formulas and Table 1 are illogical and
22 inappropriately applied, and 3) that Qwest's application of the power plant rate is
23 appropriate under the FCC's TELRIC rules.

24

1 **III. QWEST’S POWER PLANT COSTS**

2 **Q. DOES QWEST’S COLLOCATION COST STUDY SHOW THAT QWEST’S**
3 **APPLICATION OF THE POWER PLANT RATE ON AN “AS ORDERED”**
4 **BASIS IS FLAWED AS MR. STARKEY STATES ON PAGE 2 OF HIS**
5 **TESTIMONY?**

6 A. No. There is no question that the Power Plant rate has been applied to CLECs’ power
7 needs on an “as ordered” basis since it was first implemented in Washington. Indeed,
8 Qwest’s cost study clearly indicates on both the Rate Summary tab and the Detailed
9 Summary of Results tab that Qwest requested, and the Commission approved, that the
10 Power Plant rate would be charged according to the number of amps specified in CLECs’
11 power feed orders. Attached as Exhibit TKM-2 is a printout of the Detailed Summary of
12 Results for the Washington Cost Study, including the comments to each rate element.
13 The comments to the Detailed Summary of Results are direct and clear. Qwest stated
14 that its cost study supported a rate for power plant based on the number of amps in a
15 CLEC’s power feed order, and explained that the rate would be assessed on an “as
16 ordered” basis.

17
18 Further, the power plant rate and method of charging as determined in the cost docket
19 (Docket No. UT-003013, Part A) were confirmed on May 8, 2001, when this
20 Commission approved Qwest’s compliance filing.² In order to approve the requested rate
21 and rate design, and Qwest’s compliance filing regarding those rates, the Commission
22 necessarily had to conclude that Qwest’s power plant rate was TELRIC-compliant. That

² Seventeenth Supplemental Order Approving Compliance Tariff Filings, Docket No. UT-003013, May 8, 2001.

1 is, the Commission had to conclude that Qwest's requested rate was just, reasonable, and
2 non-discriminatory.

3 The bulk of Mr. Starkey's testimony is aimed at challenging the Commission's
4 conclusions about Qwest's cost study, not Qwest's interpretation of the DC Power
5 Measuring Amendment at issue in this case. In that cost docket, McLeod had the
6 opportunity to make those arguments and convince the Commission that charging for DC
7 Power Plant according to the amount of amps specified in its power feed orders was not
8 just, reasonable, and non-discriminatory, but did not do so. Now, Mr. Starkey attempts to
9 sidestep the Commission's conclusions by misleadingly arguing that the Commission
10 approved a power plant based on the number of amps used, not the number of amps
11 ordered. Qwest's cost study directly, plainly, and obviously states otherwise. Qwest's
12 compliance filing states otherwise. The Exhibit A that is incorporated into McLeod's
13 interconnection agreement states otherwise. And Qwest billed McLeod for power plant
14 at the ordered amount of amps for more than five years before the DC Power Measuring
15 Amendment was ever discussed. Qwest was and remains entitled to bill McLeod for DC
16 power plant according to its power feed orders, consistent with the Commission's
17 conclusion in the cost docket that such rates were TELRIC-compliant.

18
19 Moreover, Qwest has applied the power plant rate on an "as ordered" basis not only in
20 Washington, but also in Qwest's other states based on the same Qwest collocation cost
21 study, and up until the time McLeod filed this complaint regarding its *Power Measuring*
22 *Amendment* no CLEC, not even McLeod, challenged the application of the power plant
23 rate on an "as ordered" basis. Therefore, for Mr. Starkey to suggest that Qwest's
24 collocation cost study indicates that "Qwest should be assessing its DC Power Plant

1 charges based upon DC power usage levels” is not supported by the cost studies or by
2 past practice.

3 **Q. DOES QWEST USE DC POWER “USAGE” TO DETERMINE THE COST PER**
4 **AMP FOR POWER PLANT?**

5 A. No. Once again, Mr. Starkey’s testimony attempts to make something out of nothing.
6 While I do not deny that the *label* for the divisor (1000) on tab E.1.4 Power Equipment
7 used to calculate the cost per Amp of power plant says “DC Power Usage,” I strongly
8 disagree that it means that the calculation itself results in a power plant cost based on
9 usage. Nor am I suggesting that the cost per Amp for power plant is based on “some
10 measure of power feeder cable size or an assumption related to List 2 drain for CLEC
11 equipment and List 1 drain for Qwest equipment.” The fact is that none of these
12 measures of power has anything to do with the way in which Qwest calculated the cost
13 per Amp for power plant. Mr. Starkey has focused his discussion on a label in the cost
14 study that was admittedly applied imprecisely and has ignored completely the actual
15 logic and the calculation of cost that results in a per Amp rate for power plant based on
16 the amount of power plant required to produce a hypothetical 1000 Amps of power
17 capacity. That calculation has nothing to do with usage and it has nothing to do with
18 Qwest’s embedded costs associated with its power plant equipment.

19
20 **Q. HOW WOULD YOU CHARACTERIZE THE RESULT PRODUCED BY**
21 **QWEST’S COLLOCATION COST STUDY FOR POWER PLANT?**

22 A. Qwest’s collocation cost study uses a TELRIC methodology and determines the average
23 cost per Amp for the types and amounts of power equipment that would be necessary to
24 produce a hypothetical 1000 Amps of power plant *capacity* in any given location. In

1 other words, the cost analyst develops the cost study to answer the question “How much
2 would the power plant cost on a per Amp basis if I were to model enough power
3 equipment to produce 1000 Amps of power capacity?” He or she does this by finding out
4 from a Qwest power engineer how many and what types and sizes of rectifiers, battery
5 strings, BDFBs, power boards, engine/alternators, diesel fuel tanks, etc. are required to
6 model plant capable of producing 1000 Amps of power. The cost analyst then
7 determines the material cost for each of those pieces of equipment, the cost to engineer
8 and install them, the cost for miscellaneous parts and fuel and develops the total
9 investment for a hypothetical 1000 Amp power plant. The total investment is then
10 divided by 1000 to determine the cost per Amp of power plant capacity for that
11 configuration of power plant. The cost analyst could just as easily have modeled the cost
12 per Amp for 500 Amps of capacity or 2000 Amps of capacity. Of course, the amount,
13 types and sizes as well as the total equipment investment would vary based on the
14 capacity of power plant assumed, and that total investment would be divided by the
15 different number of amps corresponding to the modeled power plant capacity in order to
16 yield the per-amp rate.

17
18 The point of this discussion is that none of these assumptions has anything to do with the
19 actual electrical current that any telecommunications equipment in a central office might
20 consume. The only “chargeable unit” being developed in Qwest’s cost study is the cost
21 of an Amp of power plant capacity, whether it is based on a hypothetical power plant
22 configuration with 1000, 500 , or 2000 Amps of capacity.

23
24 **Q. DOES MR. STARKEY’S POSTULATE REGARDING QWEST’S POWER**

1 **PLANT RATE PROVE THAT QWEST'S RATE IS BASED ON USAGE?**

2

3 A. No. Mr. Starkey postulates that if you divide the power plant investment by *DC Power*

4 *Usage* to arrive at a cost per Amp, then you must also multiply the resulting rate by the

5 number of Amps actually used in order to recover your intended investment. Mr. Starkey

6 says that Power Plant Investment divided by DC Power Usage times DC Power Usage

7 equals Power Plant Investment. However, in order for his equation to work the DC

8 Power Usage assumption used in the cost study to calculate the investment per Amp must

9 equal the amount of power actually used (in Amps). The following simple mathematical

10 example will make obvious the fallacy of Mr. Starkey's analysis. If the investment in

11 power equipment necessary to make available 1000 Amps of power plant capacity is

12 \$448,000 and that amount is divided by 1000 Amps of hypothetical capacity, then the

13 investment per Amp is \$448. Further, if, as Mr. Starkey states in his testimony, actual

14 usage is "only about 17.93% of the capacity," then actual usage would be 179.3 Amps. It

15 is easy to see that 179.3 Amps used times \$448 per Amp equals \$80,326.40, an amount

16 that is far short of the original power plant investment of \$448,000.

17

18 There are two obvious problems with Mr. Starkey's analysis. First it assumes that Qwest

19 knew when it calculated it's per Amp costs for power plant how much *actual* usage there

20 would be on a given amount of power plant. The fact is that power *usage* is something

21 that can fluctuate month over month due to a variety of factors. Presumably, if McLeod

22 had a good estimate of how much power it was going to use in a given collocation it

23 would not ask Qwest to make 5.6 times that amount of power available to it when it

24 placed its order for power. It would be impossible for Qwest to estimate an average cost

1 per Amp for power plant on the basis of fluctuating amounts of power usage that the
2 CLECs aren't able to predict. Second, Mr. Starkey's analysis assumes that 1000 Amp
3 power plant will provide for a consistent, steady 1000 Amps of actual power usage month
4 over month. However, as Mr. Ashton explains in his testimony, because of fluctuations
5 in actual power usage because of peak usage periods and more unusual worst-case
6 scenarios such as power failures resulting in the exhaustion of battery capacity, together
7 with the need to preplan power plant capacity, Qwest does not have situations where
8 power plant designed to produce a maximum of 1000 Amps of power capacity runs at
9 that 1000 Amp maximum load month over month, consistently. That is why I say that
10 the 1000 Amps of DC Power Usage assumed in Qwest's cost study is really an
11 assumption about the total capacity available from a given amount of power equipment
12 and has no correlation to the actual amount of electrical current consumed by
13 telecommunications equipment as Mr. Starkey claims.
14

15 **Q. DOES MR. STARKEY'S TABLE 1 SHOW THAT MCLEOD PAYS POWER**
16 **PLANT CHARGES THAT ARE 5.6 TIMES THE AMOUNT IT USES AS MR.**
17 **STARKEY SAYS ON PAGE 5 OF HIS TESTIMONY?**

18 A. No. There are a number of flaws in Mr. Starkey's example (Table 1) that render his
19 analysis meaningless. First, Mr. Starkey shows a hypothetical DC Power Plant with a
20 capacity of 1200 Amps. As I have explained above, Qwest's cost study develops the cost
21 per Amp based on the power equipment necessary, according to engineering standards, to
22 produce 1000 Amps of capacity, not 1200 Amps as Mr. Starkey suggests. Second, Mr.
23 Starkey makes the erroneous leap that since the cost study models a hypothetical power
24 plant which produces 1000 Amps of power, this is a fixed amount. In reality, should

1 CLECs order the amounts claimed by Mr. Starkey, additional power plant capacity would
2 be provided by Qwest?

3 As Mr. Morrison acknowledged in hearings in Iowa, in the case of a catastrophic outage,
4 CLECs would have the full amount of power ordered available to them. Nevertheless,
5 Mr. Starkey tries to demonstrate with his table that Qwest could make available 1673
6 Amps of power to CLECs using a fixed amount of 1000 Amps of power capacity.
7 Clearly, given the CLEC ordered amounts, this could not be done with the 1000 Amps of
8 power plant capacity that Mr. Starkey assumes. It would be impossible for Qwest to
9 make 1673 Amps of power available to the CLECs based on the “ordered” amount in Mr.
10 Starkey’s table with only 1000 Amps of power plant capacity. Therefore, Mr. Starkey’s
11 table would have to be revised to reflect a power plant capable of providing for Qwest’s
12 needs and the 1673 Amps of power ordered by the CLECs. Restating Mr. Starkey’s
13 numbers to reflect the additional power plant that would be necessary in order to make
14 even 1673 Amps of power available to the CLEC results in a far different picture than
15 that depicted by Table 1.

16
17 Finally, Mr. Starkey concludes that CLECs are forced to pay for approximately 70% of
18 power load but “use” only 30%. The correct numbers, if Mr. Starkey were to populate
19 his table properly, would be far different, unless Mr. Starkey assumes that although the
20 CLECs are only 17.93% efficient in their use of power, Qwest is 100% efficient in its
21 use. In other words, what Mr. Starkey has done is assume that Qwest has 700 Amps of
22 power plant capacity available to it and uses 100% of its available power. (In my
23 experience testifying in cost dockets, it would be highly unusual for a CLEC to accuse
24 Qwest of being that much more efficient than the CLECs at anything.) Mr. Starkey then

1 adds Qwest's 700 Amps of power usage (apples) to the CLECs' 1673 Amps of power
2 ordered (oranges) to calculate his 70.5% (1673/2373) to 29.5% (700/2373) relationship
3 between the CLECs and Qwest. This calculation is illogical. Assuming that Qwest is no
4 more efficient in its use of power than the most efficient CLEC, at 700 Amps of usage
5 and an 'apples to apples' comparison, Qwest would be making 3904 Amps of power
6 available to itself under the "Order" Size column according to Mr. Starkey's calculations.
7 Of course, in a scenario where Qwest is 17.93% efficient, just as the CLECs are, the
8 CLECs would have 30% ($1673/5577 = .2999$) of the available power while Qwest would
9 have 70% ($3904/5577 = .7000$) of the available power.

10
11 It is a misleading and meaningless calculation for Mr. Starkey to use power plant
12 designed to produce 1000 Amps of capacity in a hypothetical that assumes 5577 Amps of
13 available capacity. Mr. Starkey's Table 1 demonstrates nothing more than the fact that
14 combining 'apples and oranges' assumptions in an analysis leads to misleading and
15 illogical conclusions.

16
17 **Q. DOES TABLE 1 DEMONSTRATE THAT IN SOME CIRCUMSTANCES QWEST**
18 **WILL RECOVER MORE FROM THE CLECS THAN IT HAS "ACTUALLY**
19 **INCURRED"?**

20 A. No. Nor is the amount of cost actually incurred by Qwest in its provision of network
21 elements relevant under the FCC's TELRIC rules. The FCC's TELRIC rules require
22 Qwest to develop costs on the basis of a hypothetical, forward-looking network. This
23 means that regardless of the existing network that Qwest has in place, or the costs that it
24 will or has incurred for that embedded network, Qwest is entitled to charge CLECs for

1 the use of its network (including DC power) so long as it does so using TELRIC
2 compliant rates. Therefore, for Mr. Starkey to imply that Qwest should be charging
3 CLECs on the basis of costs it actually incurred for deploying power equipment in the
4 network is just plain wrong. If actual costs based on the embedded network were the
5 appropriate standard under the FCC's rules Qwest would be charging CLECs much
6 higher rates for many unbundled network elements that it is required to provide at
7 forward-looking TELRIC rates which are well below the costs Qwest actually incurs.

8
9 Nor is Mr. Starkey correct when he says at page 8 of his supplemental direct testimony
10 that TELRIC is "intended to ensure that both collocators and Qwest pay the same
11 amount...." Again, if that were the case, the FCC would have established a methodology
12 based on Qwest's actual cost for its embedded network. It did not. Instead the FCC
13 established a methodology (TELRIC) that requires Qwest to determine the average cost
14 of various network elements based on a hypothetical, forward-looking network. Qwest's
15 collocation cost study does exactly that, nothing more and nothing less, when it
16 calculates the cost per Amp for power plant.

17 18 **IV. CONCLUSION**

19 **Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

20 **A.** Mr. Starkey's testimony attempts to prove that Qwest's collocation cost study supports
21 McLeod's interpretation of the *Power Measuring Amendment*. He does this by
22 presenting an analysis based on a table and formulas that I have shown are illogical and
23 meaningless. Mr. Starkey also argues that the cost study indicates that Qwest's power
24 plant rate should have been charged on a usage basis all along -- ignoring the rate and the

1 rate design Qwest requested in its cost study indicating that power plant was to be
2 charged according to the amount of power specified in CLEC power feed orders,
3 ignoring the Commission's orders approving the rates Qwest requested as TELRIC-
4 compliant, and ignoring the compliance filings and the Exhibit A language indicating
5 power plant was to be charged on an "as ordered" basis. I have explained that Qwest's
6 Commission-approved power plant rate represents the average cost per Amp for power
7 equipment designed to produce a hypothetical 1000 Amps of power plant capacity. It is
8 not developed, nor is it based on any concept of actual power *usage* despite the
9 misapplied label in the cost study. Clearly there is no correlation between the cost per
10 Amp of power plant generated by Qwest's study and McLeod's contention that it should
11 be charge on a per-Amp-used basis. Therefore, the Commission should disregard Mr.
12 Starkey's testimony concerning the power plant rate and focus instead on the matter at
13 issue in this complaint, i.e., whose interpretation of the *Power Measuring Amendment*
14 (McLeod's or Qwest's) is correct under the current contract.

15
16 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

17 **A.** Yes, it does.
18