

BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

IN THE MATTER OF THE CONTINUED)	
COSTING AND PRICING OF UNBUNDLED)	DOCKET NO. UT- 003013
NETWORK ELEMENTS, TRANSPORT,)	PHASE A
TERMINATION, AND RESALE)	

PHASE A REBUTTAL TESTIMONY OF

DAVID L. BEHRLE

STAFF MANAGER - ECONOMIC ISSUES

ON BEHALF OF

VERIZON NORTHWEST INC.

Formerly Known as GTE Northwest Incorporated

SUBJECT: COSTS SUPPORTING LINE SHARING MRCS

AUGUST 4, 2000

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1

I. INTRODUCTION

2

3 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

4 A. My name is David L. Behrle. My business address is 201 N. Franklin Street, Tampa, FL

5 33602.

6

7 Q. HAVE YOU FILED PHASE A DIRECT AND RESPONSIVE TESTIMONY IN THIS

8 CASE?

9 A. Yes, I have.

10

11 **ON WHOSE BEHALF ARE YOU PRESENTING TESTIMONY IN THIS PROCEEDING?**

12 I am presenting testimony on behalf of Verizon Northwest Inc., which was formerly known as GTE

13 Northwest Incorporated. The company recently changed its name after the closure of the

14 merger between its parent company, GTE Corporation, and Bell Atlantic Corporation. The

15 merged company is named Verizon Communications.

16

17 **IN YOUR TESTIMONY HOW DO YOU USE THE TERMS "VERIZON NW" AND**

18 **"GTE"?**

19 My fellow witnesses and I use "Verizon NW" to refer to Verizon Northwest Inc., the company that

20 is a party to this proceeding and on whose behalf we are testifying. I use "GTE" to refer to

1 the former GTE companies, which are now part of the Verizon Communications companies
2 along with the former Bell Atlantic companies. This will make clear that we are talking
3 about cost studies and inputs that have been developed by and for the GTE telephone
4 operating companies and about those companies' operations, practices and procedures.

5

6 **Q. WHAT IS THE PURPOSE OF YOUR PHASE A REBUTTAL TESTIMONY?**

7 A. The purpose of my phase A rebuttal testimony is to address comments made by Michael
8 Zulevic and John Klick in their phase A responsive direct testimonies presented on behalf
9 of Covad Communications Company (“Covad”) and Rhythms Links Inc. (“Rhythms”).
10 Specifically, I will address their critique of my cost study support for the Verizon NW-
11 owned splitter configuration (Configuration #3).

12

13 **Q. ARE YOU SPONSORING ANY EXHIBITS?**

14 A. Yes. The following four exhibits are attached:

15

16 ? Exhibit DLB-6 Verizon NW’s supplemental response to
17 question #6 of Rhythms’ First Set of Data Requests to Verizon
18 NW

19 ? Exhibit DLB-7 Verizon NW’s response to question #7 of
20 Rhythms’ First Set of Data Requests to Verizon NW

1 ? Exhibit DLB-8C Verizon NW's response to question #2,
2 including confidential Attachment #2a, of Rhythms' First Set of
3 Data Requests to Verizon NW
4 ? Exhibit DLB-9 Verizon NW Loading Rate Methodology

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II.MANPOWER REQUIREMENTS

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8 Q. WHAT IS YOUR RESPONSE TO MR. ZULEVIC'S ESTIMATES [PAGE 9] AND MR.
9 KLICK'S USE OF THOSE ESTIMATES [PAGE 21] OF MANPOWER
10 REQUIREMENTS FOR PLANNING, ENGINEERING, AND QUOTE PREPARATION
11 AS WELL AS INSTALLATION?

12 A. First of all, the presentation of the estimates differ between these two gentlemen. Most
13 likely, Mr. Zulevic's original estimates are presented rounded to the nearest whole hour.
14 Some of the estimates shown by Mr. Klick are ½ hour less than those presented by Mr.
15 Zulevic. If this is not the case, then Mr. Klick needs to explain how he derived labor man-
16 hour estimates less than those recommended by Mr. Zulevic.

17

18 But the bigger issue is the level of inputs themselves and how they compare to the
19 engineering and installation projections utilized by Verizon NW in the cost studies that I
20 presented in my phase A direct testimony (See Confidential Schedule 3 of Exhibit DLB-

1 2C). The labels of the functions used in the tables presented by Messrs. Zulevic and Klick
2 are not defined and it is not clear to me exactly how they would be applied to the two
3 components of provisioning splitters, i.e., engineering and installation. For example,
4 installation is not mentioned in the table heading but there is one function so identified. In
5 contrast, my cost study clearly shows the amount of installation costs per individual
6 material item. Also, the last two functions listed in their table – ILEC Contact Group and
7 Other ILEC Groups – could be associated with service ordering and may not be associated
8 with either engineering or installation. Verizon NW witness Linda Casey addresses in her
9 phase A rebuttal testimony the manpower requirements associated with these two functions.

10
11 Nonetheless, it may be helpful to re-state Verizon NW’s engineering and installation cost
12 estimates on a per full shelf basis for bay mounted splitters to see how they compare to the
13 estimates offered by the witnesses for Covad and Rhythms. Using information on my
14 Confidential Schedule 3 of Exhibit DLB-2C and a fully-loaded labor rate of \$67.64 for
15 engineering, the following table provides such a comparison of manpower requirements (in
16 hours) to provision a full shelf of bay mounted splitters.

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Table 1

Manpower Estimates in Hours for Provisioning the ILEC-Owned
Splitter Configuration (Full Shelf of Bay Mounted Splitters)

	<u>Verizon NW</u>	<u>Covad & Rhythms</u>
Engineering	4.39	5.5
Installation	6.86	4.0
<u>Other</u>	<u>0.00</u>	<u>2.0</u>
Total	11.25	11.5

Based on this comparison, I do not see any issues with Verizon NW’s engineering and installation estimates for the line sharing configuration where Verizon NW–owned splitters are mounted in a common bay for CLECs.

III.ENGINEERING AND INSTALLATION FACTORS

Q. HOW WERE VERIZON NW ENGINEERING ESTIMATES DEVELOPED?

A. As noted in Exhibit DLB-6¹, Verizon NW’s engineering estimate of 10% of base material cost (excluding cables) was used as a reasonable estimate of the engineering cost for

¹ Exhibit DLB-6 contains a supplemental response to question #6 of Rhythms’ First Set of Data Requests to Verizon NW that is being provided to parties concurrently with this filing.

1 provisioning line sharing. This is a fairly common practice to estimate engineering labor
2 based on the relative value of base material costs. Furthermore, Verizon NW does not track
3 engineering time on an equipment component basis. One reason is that it would be very
4 subjective to allocate engineering activity that is common to a project, such as technical
5 support research, final documentation, review, etc. down to the component level. In
6 addition, the two design work orders that were provided in response to Rhythms data
7 request #6 validate the reasonableness of this estimate.

8
9 Without knowing the exact magnitude and frequency of orders (including the number of
10 orders and requested capacity per order) from the CLECs, one cannot predict the exact
11 engineering time that will be expended per order. Situations may vary across the wire
12 centers themselves, and different situations may cause variations in engineering time spent
13 planning the different orders. However, the amount of engineering time for provisioning
14 splitters does not appear to warrant Individual Case Basis (“ICB”) treatment.² The 10%
15 factor was deemed appropriate, fair and reasonable for both Verizon NW and CLEC
16 interests at this time for this proposed interim configuration of Verizon NW-owned
17 splitters.

1 ²This should not be construed as an endorsement of Mr. Klick’s critique of ICB pricing [pages 12
2 & 13]. ICB cost recovery mechanisms are appropriate for services with low demand volumes and
3 highly variable cost activities.

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2 **Q. DO YOU HAVE ANY ADDITIONAL RESPONSE TO MR. KLICK'S ISSUES**
3 **RAISED ON PAGE 26 WITH VERIZON NW'S 10% ENGINEERING FACTOR**
4 **UTILIZED IN YOUR EXHIBIT DLB- 2C?**

5 A. Yes. The engineering cost estimates provided on the two design work orders are the same
6 even though they represent different amounts of equipment being provisioned.³ Instead of
7 applying a constant engineering fee to each CLEC requested order for splitters, Verizon
8 NW's approach converts expected engineering time and cost to the amount of materials that
9 will be placed. The two design work orders, which validate the 10% engineering estimate,
10 are for partially equipped bays of splitter equipment. This comports with our expectation;
11 Verizon NW does not believe that the CLECs will order capacity in terms of full bays, or
12 1,344 lines, at a time. Presently, the former GTE companies have received only 33 line
13 sharing orders of which three orders are for Washington. It is not appropriate to apply the
14 full economies of scale of engineering fully equipped bays of splitters when these types of
15 orders have not been received and are not expected. Every subsequent order may require
16 additional engineering involvement. Only time and experience will provide the information

1 ³See Confidential Attachment #6 to Verizon NW's original response to question #6 of
2 Rhythms' First Set of Data Requests to Verizon NW. Although a supplemental response to
3 question #6 of Rhythms' First Set of Data Requests to Verizon NW is being provided to parties
4 concurrently with this filing, the two work orders (Confidential Attachment 6) provided with
5 Verizon NW's original response remain unchanged.
6

1 necessary to update this estimate. Verizon NW believes the 10% engineering factor applied
2 to base material costs (excluding cables) is appropriate at this time.

3 **Q. HOW WERE VERIZON NW INSTALLATION ESTIMATES DEVELOPED?**

4 A. Verizon NW's installation estimates cover the time required to install the bay and associated
5 cable runways, the splitter shelves, the splitter cards, the termination blocks on the MDF,
6 run the tie cables from the bay to the MDF, and terminate the cables onto blocks at the
7 MDF. Verizon NW's installation estimates are supported by the Company's response to
8 Rhythms Data Request #7 (See attached as Exhibit DLB-7) and the average lengths of cable
9 assumed in the cost study. In response to this data request, Verizon NW provided a
10 summary (and the supporting data source worksheet) of central office installation hours per
11 function that are used by the Company's engineers in designing central office work orders.
12 Total installation time is a function of the materials being placed (bays, shelves, splitter
13 cards, cable runways, connector blocks on MDF, terminating cables, etc.) and the cable
14 length between the bay and the MDF. The cost study reflects 2.52 hours of installation time
15 for running the cables for a full shelf from the bay to the MDF at an average length of
16 158.33 feet.⁴ The issue of cable length is addressed separately below.

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1 ⁴As calculated from the cost study; see Confidential Schedule 3 of Exhibit DLB-2C.

2

1 Q. DID VERIZON NW UTILIZE “A FLAT PERCENTAGE OF MATERIAL COST” TO
2 ESTIMATE INSTALLATION COSTS AS MR. KLICK SUGGESTS ON PAGE 26, LINE
3 1?

4 A. No. Mr. Klick is mistaken. Verizon NW’s estimates for installation costs are based on the
5 component of equipment being installed, and the quantity to be provisioned, as in the
6 number of splitter cards/modules or the number of feet of tie cables. Installation costs are
7 not estimated based on “a flat percentage of material cost.”

8

9 **Q. HAS VERIZON NW REVISITED ITS ENGINEERING AND INSTALLATION**
10 **ESTIMATES WITH COMPLETED WORK ORDERS AS MR. KLICK SUGGESTS**
11 **ON PAGE 26?**

12 A. No, Verizon NW is in the process of obtaining and analyzing completed work orders for the
13 provisioning of the splitter configuration where the Verizon NW-owned splitter is installed
14 in a common bay for use by CLECs. Verizon NW commits to supplementing the record
15 in this proceeding on these issues with supplemental rebuttal testimony as soon as the
16 information becomes available.

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IV.CABLE LENGTHS

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20 **Q. WHAT IS YOUR RESPONSE TO MR. KLICK’S ISSUE RAISED ON PAGE 25**

1 CONCERNING VERIZON NW CABLE LENGTHS UTILIZED IN YOUR
2 EXHIBIT DLB-2C?

3 A. In Confidential Schedule 3 of Exhibit DLB-2C, cable lengths of 50, 100, 150, 200, 250, and
4 300 feet are shown for the ADSL Signal Cable and the Loop Termination Cable. These
5 correspond to the various lengths of connectorized cables available to engineering for use
6 in provisioning line sharing. Not knowing the average length that would be eventually
7 used, it was determined to show all cable lengths and perform a simple average on the cost
8 study worksheet. However, only four cable lengths (those of 50, 100, 150 and 200 feet)
9 were shown for the third cross-connect cable, the POTS return cable. The difference in the
10 averages for these three different presentations is the issue raised by Mr. Klick. Our filed
11 costs would increase slightly had we included the 250 and 300 foot cables for the POTS
12 Return Cable.

13
14 Also, as one means of validating the average length of cable used in the study, it should be
15 noted that the cable lengths from the two design work orders were 200 and 300 feet, for an

16

1 average of 250 feet.⁵ However, this estimate of average cable lengths was not used in the cost
2 study submitted with my phase A direct testimony. Another point of reference and validation of
3 the average cable length used in the cost study comes from Verizon NW collocation experience.
4 The average cable distance of current collocation space from MDF terminal blocks is 202 feet.
5 This measurement is based on 113 collocations throughout the former GTE system.

6

7 In a subsequent search for material base costs for the two longer cable lengths of 250 and
8 300 feet for the POTS Return Cable, we found another vendor for this type of unshielded
9 connectorized cable for all the lengths contained in our cost study. In addition, the base
10 material costs for all of these POTS return cables of this vendor are less expensive than
11 those we provided earlier in the study. However, with the increased installation labor
12 associated with these longer cables, the total monthly recurring cost of providing line
13 sharing would go up about 8 cents per line per month. This illustrates that while
14 refinements of the original cost study are possible, the original cost study measurement is
15 not significantly impacted.

1 ⁵See Confidential Attachment #6 to Verizon NW's original response to question #6 of
2 Rhythms' First Set of Data Requests to Verizon NW. Although a revised response to question
3 #6 of Rhythms' First Set of Data Requests to Verizon NW is being provided to parties
4 concurrently with this filing, the two work orders (Confidential Attachment 6) provided with
5 Verizon NW's original response remain unchanged.

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V. MATERIAL LOADING FACTOR

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Q. WHAT IS YOUR RESPONSE TO MR. KLICK'S ISSUE RAISED ON PAGE 25 WITH VERIZON NW'S MATERIAL LOADING FACTOR UTILIZED IN YOUR EXHIBIT DLB-2C?

A. Verizon NW's material loading factor used in the line sharing cost is appropriate and based on state-specific experience for similar circuit equipment provisioning. Attached as Exhibit DLB-8C is Verizon NW's response to Rhythms data request #2 and its confidential attachment #2a of the three year results that were averaged to produce the material loading factor. This information identifies and provides the detail of the major components of the total factor, namely, supply and minor materials. Supply is further broken out on the attachment into its three subcomponents of freight, sales tax, and provisioning. Exhibit DLB-9 provides additional explanation for these subcomponents and the formula for determining the material loading factor. These numbers are the best estimates Verizon NW has for the supply and provisioning costs that Verizon NW expects to incur for provisioning line sharing equipment.

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VI.CONCLUSION

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3 **Q. DO YOU HAVE ANY OTHER RESPONSE TO MR. KLICK'S AND MR.**
4 **ZULEVIC'S CRITICISMS OF VERIZON NW'S COST STUDY SUPPORT?**

5 **A.** Yes. Verizon NW stands behind its original cost study as filed with my phase A direct
6 testimony as a good estimate of costs for this new service. In addition, we note that this
7 configuration, where Verizon NW owns the splitter, is proposed by Verizon NW to be only
8 an interim solution. The CLECs should select one of the two CLEC-owned splitter
9 configurations for their longer-term provisioning solutions.

10

11 **Q. DOES THIS CONCLUDE YOUR PHASE A REBUTTAL TESTIMONY?**

12 **A.** Yes.