BEFORE THE

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

In the Matter of the Petition of Verizon) Northwest Inc. for an Order Approving) Commencement Of Bifurcated General Rate) Case and Waiver of WAC 480-07-510(2))	**DOCKET NO. UT-040788**

DIRECT TESTIMONY OF

KEVIN C. COLLINS

ON BEHALF OF
VERIZON NORTHWEST INC.

AUGUST 23, 2004

TABLE OF CONTENTS

I. *INTRODUCTION*

2

3 **Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND EMPLOYER.**

4 A. My name is Kevin C. Collins. My business address is 711 Van Ness Avenue, Suite 300,

5   San Francisco, CA 94102. I am employed by Verizon Communications as Senior Staff

6   Consultant. I am sponsoring testimony on behalf of Verizon Northwest Inc. ("Verizon

7   NW").

8

9 **Q. MR. COLLINS, PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND**

10   **AND WORK EXPERIENCE.**

11 A. I received a Bachelor of Science degree in Economics from California State Polytechnic

12   University Pomona and a Masters of Science degree in Economics from the University of

13   North Texas. I also completed one year of the Ph.D. program in economics at the

14   University of Washington.

15

16   I began working for Verizon, then GTE, in 1986 as a Rates and Tariffs Administrator

17   responsible for the costing and pricing of local services for the GTE telephone operating

18   company in Washington, Oregon, Idaho, and Montana. During the course of my career I

19   have held various positions in the areas of cost modeling, rate design, and tariff

20   development. I assumed my current position at the end of 1996. I have testified in

21   Verizon regulatory proceedings in California, Oregon, Texas, Indiana, Pennsylvania,

22   Wisconsin, Nevada, New Mexico, New York, New Jersey, North Carolina, New

23   Hampshire, Vermont, Ohio, and Illinois.

| 1 | Q. | **HAVE YOU PREVIOUSLY TESTIFIED IN WASHINGTON?** |

1   **Q.**   **HAVE YOU PREVIOUSLY TESTIFIED IN WASHINGTON?**

2   A.   Yes. I testified in Docket No. UT-980311(a) (Universal Service) and Docket No. UT-

3   003013 Phase B (UNE).

4

5   **Q.**   **WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

6   A.   The purpose of my testimony, pursuant to WAC 480-07-510(6), is to introduce and

7   describe Verizon NW's retail Total Service Long Run Incremental Cost (TSLRIC)

8   studies, the results of which are presented in Exhibit KCC-2C. These retail service costs

9   are used by Verizon NW witness Doug Fulp in his rate design analysis.

10

11   *II.*   *SCOPE*

12

13   **Q.**   **WHICH RETAIL SERVICE COSTS ARE INCLUDED IN THIS FILING?**

14   A.   Included in this filing are costs for services from the basic local, special access, and

15   custom calling service categories. Also included are costs for miscellaneous services

16   such as directory listings and local directory assistance, in addition to cost in support of a

17   proposed late payment charge. The complete list of included service costs can be found

18   on Exhibit KCC- 2C.

19

20   **Q.**   **DO THE SERVICE COSTS INCLUDED IN THIS FILING REPRESENT ALL**

21   **SERVICES PROVIDED BY VERIZON NW IN THE STATE OF WASHINGTON?**

22   A.   No. Verizon NW included a subset of Verizon NW's services as described in the

23   testimony of Mr. Fulp.

1		*III.* *COST MODEL*
2		
3	Q.	**WHAT COST MODEL HAS VERIZON NW USED TO DEVELOP ITS COST**
4		**STUDIES IN THIS PROCEEDING?**
5	A.	Verizon NW has used VzCost to develop retail service costs (TSLRICs), the same model
6		used by Verizon NW to calculate Total Element Long Run Incremental Cost (TELRIC)
7		for the unbundled network elements (UNEs) in Docket No. UT-023003. VzCost is an
8		Internet-based cost model that has been designed and developed by Verizon's Service
9		Costs group, for Verizon's cost studies.
10		
11	Q.	**PLEASE DESCRIBE VZCOST'S GENERAL APPROACH TO CALCULATING**
12		**RECURRING COSTS.**
13	A.	VzCost is designed around four basic modules: the Investment Calculators, the
14		Investment Generator, the Costing Generator, and the Report and Documentation
15		Generator. These modules are depicted in Exhibit KCC- 3 accompanying this testimony.
16		
17		The Investment Calculators calculate investments based on various inputs and
18		assumptions provided by Service Costs analysts. These inputs and assumptions are
19		designed to account for factors such as customer demand, technologies used, and input
20		prices. The loop investment calculator, VzLoop, is contained within the VzCost system
21		and accessible through the same Internet interface used to access the other VzCost
22		modules. The investment calculators for other portions of the network (*e.g.*, switching,
23		interoffice facilities, SS7) are currently external to the online VzCost system and must be

1	accessed independently. Whether the modeled investments are developed from internal
2	or external calculators, they all represent investments at a very granular level called
3	"investment elements."
4	
5	After the investment elements have been calculated and loaded into VzCost, they pass
6	through the Investment Generator module. The Investment Generator performs three
7	primary functions. First, it applies to the investment elements any loadings that are
8	needed to calculate total installed investment. Second, it assembles the investment
9	elements into larger groupings, called "basic components" (or "BCs"), that can be used to
10	build the costs of UNEs and retail services. Third, where necessary, it converts aggregate
11	BC investment into per-unit BC investment. At this stage, all investments have been
12	converted to total installed investment, at the per-unit level, for each basic component.
13	
14	In the Costing Generator, VzCost maps the per-unit BC investments to the retail services
15	that are being modeled and then converts those investments to recurring costs by
16	applying various annual cost factors (ACFs) and expense loadings. The ACFs and
17	expense loadings account for depreciation (capital recovery, return on investment,
18	operating expenses, overhead, and various other costs of providing retail services.
19	
20	Finally, the Report/Documentation Generator allows users to generate documentation and
21	reports for each cost study run using VzCost. Users can view the list of available reports,
22	request reports for studies that have been run, and assemble a complete documentation
23	package that can be filed with the Commission. All support for VzCost, including

1		manuals, user guides, and support documents, is contained in the CDs accompanying my
2		testimony and is identified as Exhibit KCC- 4 (and KCC-4C).
3		
4		*IV. COST METHODOLOGY*
5		
6	**Q.**	**WHICH COST METHODOLOGY IS RELEVANT TO THIS CASE?**
7	A.	Since this case involves retail services the appropriate cost measure is a TSLRIC. The
8		cost object of a TSLRIC is a retail service. TSLRIC is specifically designed to measure
9		the change in total cost attributable to the decision to provide a particular service. A
10		TELRIC, on the other hand provides the very same type of measure, but for a network
11		element instead of a retail service.
12		
13	**Q.**	**WHAT COSTS WERE CONSIDERED IN THE UNE CASE (DOCKET NO. UT-**
14		**023003)?**
15	A.	Total Element Long Run Incremental Cost (TELRIC).
16		
17	**Q.**	**HOW ARE TSLRIC AND TELRIC SIMILAR CONCEPTUALLY?**
18	A.	Simply stated, the T-L-R-I-C parts of TSLRIC and TELRIC are the same. That is, both
19		reflect the total ("T") demand for the cost object as opposed to studying only a small
20		change in demand. They are also both long run ("L-R") costing methodologies that
21		necessarily reflect both capital costs and expenses. Finally, they are both capture the
22		incremental cost ("I-C") of the service or element in question.
23		

Verizon NW Direct
Collins - 5

1	**Q.**	**WHAT ARE THE SIMILARITIES BETWEEN THE TSLRICS FILED IN THIS**
2		**CASE AND THE TELRIC STUDIES FILED IN DOCKET NO. UT-023003?**

3   A.   The same cost model, VzCost, was used in both filings, which allows for consistency

4   among a wide range of costing applications. For example, VzCost in this case draws

5   upon the same pool of basic investment elements in both its TELRIC and TSLRIC

6   studies, except as noted in the switching section of this testimony. Specifically, when

7   establishing the TELRIC of a particular UNE or the TSLRIC of a particular retail service,

8   Verizon NW extracts from this pool the appropriate mix of investment elements for that

9   UNE or service. For example, a network interface device ("NID") is used by both basic

10   residential one party local service and a UNE loop. In modeling costs for residential one

11   party local service and the UNE loop, Verizon NW uses the same investment elements

12   for the NID component.

13

14	**Q.**	**HOW DO THE TSLRIC STUDIES FILED IN THIS CASE DIFFER FROM THE**
15		**TELRIC STUDIES FILED IN DOCKET NO. UT-023003?**

16   A.   Although the same model, VzCost, was used in both cases, the cost studies have a few

17   important differences, which reflect differences between studying a retail service and a

18   UNE. First, the set of basic components mapped to services to generate TSLRICs are

19   different from the set of basic components for UNEs, e.g. in a TELRIC study a UNE loop

20   does not include a switch port, but the TSLRIC of basic local service does. Second, the

21   TSLRIC studies in VzCost account for the demand characteristics specific to each

22   service. For example, while residential and business local service are based on the same

23   modeled network, the cost of each service reflects the differences associated with each

1   subscriber group by assigning each portion (such as a particular route) of the modeled

2   network to the customer class using that portion of the network. Third, some of the

3   investment and expense factors used in the VzCost TSLRIC studies are different from

4   those used in the TELRIC studies because of the differences associated with providing a

5   retail service rather than a wholesale element. For example, Verizon NW's TSLRIC

6   studies take into account a different cost of capital, rate of uncollectibles, and directory

7   expense from that appropriate for the TELRIC studies.

8

9   **Q.   ARE THERE ANY OTHER SIGNIFICANT DIFFERENCES BETWEEN THE**

10   **TSLRIC STUDIES FILED IN THIS CASE AND THE TELRIC STUDIES**

11   **SUBMITTED IN DOCKET NO. UT-023003?**

12 A.   Yes. The switching studies used to support development of TSLRIC retail services are

13   performed on a unit investment basis rather than a total investment basis utilized in the

14   TELRIC studies submitted in Docket No. UT-023003. The unit investment method

15   disaggregates the total cost of the switch into the costs for switch resources on a per unit

16   basis (*e.g.*, Getting Started Cost per millisecond, Cost per Line Centum Call Seconds

17   ("CCS") and the like) and then identifies the types and quantities of resources required

18   for each element (or feature). The next step is to assemble all of the piece parts to

19   calculate costs corresponding to the various rate elements, *e.g.*, cost per call setup and per

20   minute for a POTS call. This method is complicated and resource intensive, requiring

21   that the cost of each and every individual feature be calculated. The unit investment

22   approach is required for support of retail price floors in order to determine costs of

23   individual features.

1 **Q. WHY DID VERIZON NW ESTIMATE SWITCHING COSTS USING THE UNIT**

2 **INVESTMENT METHOD IN THIS CASE?**

3 A. In Docket No. UT-023003 Verizon NW followed the requirement of the Eighth

4 Supplemental Order in Docket UT-960369, UT-960370, and UT-960371 to avoid

5 separate charges for vertical features in the absence of compelling reasons. Verizon

6 NW's UNE switching studies in that case were specifically designed to avoid having to

7 charge separate UNE rates for features that can be provisioned through the switch

8 processor and that do not require any feature-specific hardware. Consequently, the total

9 investment approach used in the Docket No. UT-023003 UNE studies includes the cost of

10 features without service-specific adjunct hardware requirements in the Local Switching

11 Usage element. This, however, is not appropriate in the case of retail cost studies where

12 the cost for individual features is required.

13

14 *V. TSLRIC RESULTS*

15

16 **Q. PLEASE IDENTIFY THE TSLRIC RESULTS PRODUCED BY VZCOST.**

17 A. The TSLRIC results are summarized in Exhibit KCC- 2C. Included in the exhibit are

18 both direct and shared costs. These costs are used by Mr. Fulp in his rate design analysis.

19

1		***VI. SUMMARY AND CONCLUSION***
2		
3	**Q.**	**PLEASE SUMMARIZE YOUR TESTIMONY.**
4	A.	To comply with WAC 480-07-510(6), Verizon NW has provided cost studies for those
5		services included in its proposed rate design. My testimony briefly describes the cost
6		model (VzCost), and methodology employed (TSLRIC) to generate the cost study results,
7		which are used by Mr. Fulp in his rate design analysis. Accompanying my testimony is
8		one exhibit showing the cost study results and another exhibit providing detailed cost
9		study documentation.
10		
11	**Q.**	**DOES THIS CONCLUDE YOUR TESTIMONY?**
12	A.	Yes.