

BEFORE THE NEBRASKA PUBLIC SERVICE COMMISSION

In the Matter of the Commission,) Application No. C-2516/PI-49
on its own motion, to investigate)
cost studies to establish Qwest)
Corporation's rates for) Findings and Conclusions
interconnection, unbundled)
network elements, transport and)
termination, and resale.) Entered April 23, 2002

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I. INTRODUCTION

1. The Nebraska Public Service Commission (Commission) after considering the testimony and arguments of the parties, enters its final order covering all phases of this proceeding and all stipulations of the parties as follows:

II. BACKGROUND

A. History of Docket No. C-2516

2. In September 1996, the Commission opened Application No. C-1415 to investigate cost studies and to establish rates for interconnection, unbundled elements, transport and termination, and resale services for US West Corporation, now known as Qwest Corporation (Qwest).

3. On March 6, 2001, the Commission requested the parties to comment on whether the evidence provided in Application No. C-1415 had become outdated and stale. After reviewing the comments of the parties, the Commission concluded that the information contained in Application No. C-1415 had, indeed, become stale. The Commission also found that due to the Federal Communications Commission's (FCC) *UNE Remand Order*, *Line Sharing Order*, and *Advanced Services Order*¹ new unbundled network elements (UNEs) that were not addressed in Application No. C-1415 needed to be priced.

4. In order to relieve the confusion associated with permitting the parties to supplement Application No. C-1415, the Commission decided to open an entirely new proceeding. On April 17, 2001, the Commission formally closed Application No. C-1415 and opened the current, Application No. C-2516, to investigate cost studies for establishing rates for interconnection, unbundled network elements, transport and termination, and resale services.

5. The Commission allowed any interested party, including the Commission staff, to file a cost model or methodology for Commission review. Parties were permitted to submit briefs, plans, or recommendations to the Commission with respect to pricing the loop UNE. The Commission also permitted parties to Application No. C-1415 to transfer certain evidence from that docket to this docket upon a proper showing that such evidence was relevant and not stale.

6. On August 3, 2001, the Commission divided Application No. C-2516 into three phases, as follows:²

1 *Implementation of the Local Provisions of the Telecommunications Act of 1996*, Third Report and Order, CC Docket No. 96-98, FCC 98-238 (rel. November 5, 1999) (*UNE Remand Order*); *Deployment of Wireline Service Offering Advanced Telecommunications Capability*, Third Report and Order, CC Docket No. 98-147 and *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, Fourth Report and Order, CC Docket No. 96-98, FCC 99-355 (rel. December 9, 1999) (*Line Sharing Order*); and *Deployment of Wireline Service Offering Advanced Telecommunications Capability*, First Report and Order, CC Docket No. 98-147, FCC 98-48 (rel. November 5, 1999) (*Advanced Services Order*).

2 *In the Matter of the Nebraska Public Service Commission, on its own motion, to conduct an investigation to investigate cost studies to establish Qwest Corporation's rates for interconnection, unbundled network elements, transport and termination and resale services*, Application No. C-2516/PI-49, *The Commission, on its own motion, to determine the appropriate price for expanded Interconnection Channel Termination (EITC)*, Application No. C-2498/PI-47, Progression Order No. 2, (August 3, 2001).

Phase 1 was reserved for the pricing of loop and subloop elements pertaining to intra-building cable and campus wire.

Phase 2 was reserved for the pricing of expanded interconnection channel termination or interconnection tie pair (EICT/ITP), entrance facilities, extension technology, direct trunked transport, shared transport, unbundled dedicated interoffice transport (UDIT), line and trunk ports, and local switching.

Phase 3 was reserved for the pricing of nonrecurring rates, collocation (virtual, caged and cageless physical, adjacent, remote and remote adjacent), signaling, transit traffic, category 11 mechanized record charge, line sharing, DSO UDIT low side channelization, DS1/DSO low side channelization, UDIT rearrangement, unbundled dark fiber (UDF), unbundled customer controlled rearrangement element, local switching-vertical features, digital trunk ports-message trunk group, and wholesale discount rates.

7. Subsequent to dividing the proceeding into three phases, the Commission received evidence and conducted hearings on August 8 and 9, September 19 and October 16, 2001. The Commission also received legal briefs from the parties regarding each phase of the proceeding, which detailed each party's position on Qwest's proposed rates. Generally, the evidence, hearings, and briefs focused on those rates that the parties disputed even though all of Qwest's proposed rates were before the Commission. After each phase, the Commission reviewed and considered the evidence and testimony presented by the parties in that particular phase.

8. During the course of the proceeding, Qwest and certain competitive local exchange carriers (CLECs) reached agreements regarding some of the disputed rates. On October 4, 2001, Qwest and Cox Nebraska Telcom, LLC (Cox) submitted a stipulation regarding rates for campus wire, intra-building wire, and jumper installation to the Commission for approval.³ On December 4, 2001, Qwest and Alltel Communications of the Midwest, Inc. (Alltel) submitted a stipulation regarding specific rates for DS0, basic loop installation, and ITP to the Commission for

3 In the Matter of the Commission, on its own motion, to investigate cost studies to establish Qwest Corporation's rates for interconnection, unbundled network elements, transport and termination and resale services, Application No. C-2516/PI-49, Notice of Filing Stipulation, (October 4, 2001) (Qwest/Cox Stipulation).

approval.⁴

9. On December 18, 2001, the Commission entered an order soliciting comments from all parties to determine if the prices agreed to and offered by the parties to the stipulations mentioned above comply with the FCC's Total Element Long Run Incremental Cost (TELRIC) pricing principles. On January 4, 2002, all parties submitted their comments.

10. On February 8, 2002, upon due notice to the interested parties, the parties met before the Commission to informally discuss other UNE rates still at issue. During this meeting, Dr. David Rosenbaum and Commission Staff (Staff) presented a number of proposed input modifications and proposals for calculation of UNE rates. After discussing these proposals and certain suggested modifications to these proposals, the other parties agreed not to oppose the revised recommendations of Staff.

B. Legal Standard

11. Section 252(d)(1) of the Telecommunications Act of 1996 (The Act) requires state commissions to establish just and reasonable rates for interconnection and UNEs. Specifically, Section 252(d)(1)(A)(I) mandates that these rates be "...based on the cost (determined without reference to rate-of-return or other rate-based proceeding) of providing the interconnection or network element."

12. In its pricing rules implementing the Act, the FCC stated that interconnection and UNE rates should reflect TELRIC principles or, in other words, the forward-looking total element long run incremental cost of a network facility or element. Courts have recognized that TELRIC rates should reflect the cost of building and operating a replacement network using the most efficient technology available.⁵

13. Although TELRIC establishes the framework for calculating rates, TELRIC "...is not a specific formula, but

⁴ *In the Matter of the Commission, on its own motion, to investigate Qwest Corporation's cost to establish rates for interconnection, unbundled network elements, transport and termination and resale services*, Application No. C-2516/PI-49, Stipulation and Order Regarding Certain UNE Rates, (December 4, 2001) (Qwest/Alltel Stipulation).

⁵ *Sprint Communications Co., L.P. v. FCC*, No. 01-1076, 2001 U.S. App. Lexis 27292, at *16-17 (D.C. Cir. Dec. 28, 2001).

rather a collection of methodological principles."⁶ Because it is not a specific formula, TELRIC does not mandate specific rates but, instead, allows for a range of rates.⁷ The range must be established using inputs and assumptions consistent with TELRIC. The ability to establish rates that fall within a reasonable range gives state commissions "...wide latitude to account for local technological, environmental, regulatory, and economic conditions."⁸ The Commission has previously determined that TELRIC compliant cost models should use realistic inputs as opposed to imaginary costs.⁹

14. With respect to stipulated rates, the Court of Appeals recently found that stipulated rates can satisfy TELRIC pricing principles.¹⁰ Thus, in evaluating the stipulated rates in this case, the Commission will not consider whether the proposed stipulated rates are "the" correct rates, but rather, whether the proposed rates fall within a range of reasonable TELRIC rates.

III. LOOP & SUBLOOP

15. The loop is an essential element for the establishment of meaningful facilities-based competition as envisioned by the Act. It represents the "last mile," the final network element needed to make connection with the end user customer.

16. The incumbent local exchange carrier (ILEC) traditionally owns and operates all the loops within its operating territory. A CLEC must purchase the loop as a UNE (Loop UNE)

6 *Id.* (quotations and citations omitted).

7 See Memorandum Opinion and Order, *In the Matter of Joint Application by SBC Communications Inc., Southwestern Bell Telephone Company, and Southwestern Bell Communications Services, Inc., d/b/a Southwestern Bell Long Distance for Provision of In-Region, InterLATA Services in Kansas and Oklahoma*, CC Docket No. 00-217, FCC 01-29 (Rel. Jan. 22, 2001) (SBC Kansas/Oklahoma 271 Order) ¶ 91 (stating that TELRIC-based pricing can result in a range of rates).

8 *Sprint Communications Co., L.P. v. Federal Communications Commission*, No. 01-1076, 2001 U.S. App. Lexis 27292, at *16-17 (D.C. Cir. Dec. 28, 2001) (quotations and citations omitted).

9 *In the Matter of the Commission, on its own motion, to conduct an investigation to determine which cost study model should be recommended to the FCC for determining Federal Universal Service Support Order*, Application No. C-1633, (May 22, 1998).

10 *Sprint Communications Co., L.P. v. FCC*, No. 01-1076, 2001 U.S. App. Lexis 27292, at *28-30 (D.C. Cir. Dec. 28, 2001).

from the ILEC in order to provide service to its customers. UNEs priced at forward-looking rates allow the CLEC access to the economies enjoyed by the ILECs. Therefore, meaningful facilities-based competition depends on an accurate Loop UNE pricing methodology. In addition, this pricing method will set zone rates. As required by the FCC, loop prices are to be deaveraged into "...a minimum of three cost-related zones."¹¹

17. The Commission shall determine, based on the record, an appropriate methodology with which to determine Loop UNE price and zone methodologies that are both fair and accurate, while striving to foster an environment in which competition may flourish.

A. Position of the Parties

18. The Commission received testimony concerning a Loop UNE price methodology from Qwest, Alltel, AT&T Communications Midwest, Inc. (AT&T) and Dr. David Rosenbaum.

1. Loop Model

Qwest

19. Qwest argued the Integrated Cost Model (ICM), with all of its associated default inputs, estimates UNE investments using forward-looking technologies.¹² Specifically, Qwest stated the ICM LoopMod (LoopMod) program is a model designed to estimate forward-looking economic costs for the Loop UNE.¹³

20. Qwest contended the LoopMod properly calculates the level of loop investment because it uses reasonable and realistic designs¹⁴ and inputs, including: feeder design, distribution design, and placement and utilization of plant and equipment.

11 47 CFR § 51.507 (f)(2).

12 *In the Matter of the Commission, on its own motion, to investigate Qwest Corporation's rates for interconnection, unbundled network elements, transport and termination and resale services*, Application Nos. C-2516/PI-49 and C-2498/PI-47, Transcript, Volume I, (August 8, 2001) (08/08/01 Tr.) at 6-11.

13 Loop Module (LoopMod) User Manual, Version 2, (April 2000).

14 *In the Matter of the Commission, on its own motion, to investigate Qwest Corporation's rates for interconnection, unbundled network elements, transport and termination and resale services* Application No. C-2516/PI-49 Direct Testimony of Garrett Y. Fleming (filed July 20, 2001), (07/20/01 Fleming Direct) at 6.

21. In establishing feeder design -- the main facility that runs from a central office to a Serving Area Interface (SAI) -- Qwest argued that LoopMod uses an economic mix of copper and fiber facilities based on user-selected breakpoints. The breakpoints determine the distances at which the model transitions between different technologies and placement assumptions. The model analyzed each route in each Nebraska wire center to determine the amount of demand on the route and the distance that the demand is from the central office. The model used the information specific to each feeder route in conjunction with the breakpoint between copper and fiber to size the electronics and cables that are required.¹⁵

22. Qwest argued that LoopMod also correctly determined loop distribution plant -- cables connecting from the end user to the feeder plant at a SAI. LoopMod incorporated five distribution designs (DA): (1) high-rise buildings, (2) multi-building/multi-tenant scenarios, (3) single family with standard lot sizes, (4) single family with larger lots, and (5) rural serving areas. LoopMod maps each Nebraska DA to one of the predetermined DA designs, based on the area, in square miles, of the DA and information relating to the size and type of terminals included in the DA. LoopMod uses data relating to the area of DAs to adjust cable length for only those distribution designs oriented by lot size (DG3, DG4 and DG5). Qwest further claimed that because of these adjustments, the DAs reflect the unique density that exists within each DA. Upon completion of DA processing, the model weights the DA investments together based on their proportionate share of total working lines. Qwest claimed this weighting method allows actual Nebraska-specific occurrence of distribution designs to be reflected in loop investments.¹⁶

23. Qwest proposed creating zone rates using the ICM.¹⁷

24. Qwest opposed the HAI model, presented by AT&T, claiming it relies, to a large extent, on proprietary data not

15 *In the Matter of the Commission, on its own motion, to investigate Qwest Corporation's rates for interconnection, unbundled network elements, transport and termination and resale services*, Application No. C-2516/PI-49 Direct Testimony of Dick Buckley (filed July 20, 2001) (07/20/01 Buckley Direct) at 5.

16 *Id.* at 8.

17 07/20/01 Fleming Direct at 33-34.

furnished during the proceeding.¹⁸ Qwest also argued the HAI model understates costs, by overstating customer density, due to the use of 1997 customer location data and 2000 line counts.¹⁹

AT&T

25. The AT&T-sponsored HAI model utilizes a distribution design based on geocoded customer locations. AT&T asserted the HAI model incorporates the location of actual customers in Nebraska as well as specific Nebraska geographic data such as terrain characteristics, rock hardness and water depth.²⁰ The HAI model uses locations of actual customers in Nebraska,²¹ Qwest's own publicly-available wire center specific line counts²² and Qwest's actual switch locations²³. When geocoded customer locations are not available, customers are distributed throughout the service territory by placing the premises on existing roads.²⁴ Distribution plant and feeder plant are then estimated using a right-angled minimum spanning tree methodology.²⁵

26. AT&T stated the HAI model is "...open, easy to use, and estimates costs specific to Nebraska..."²⁶ and argues it is flexible in that all input values and major assumptions are user adjustable. Further, AT&T claimed, the HAI model can easily

18 *In the Matter of the Commission, on its own motion, to investigate Qwest Corporation's rates for interconnection unbundled network elements, transport and termination and resale services*, Application No. C-2516/PI-49 and C-2498/PI-47, Transcript, Volume II, (August 9, 2001), (08/09/01 Tr.) at 255-258.

19 08/08/01 Tr. at 22.

20 *In the Matter of the Commission, on its own motion, to investigate Qwest Corporation's rates for interconnection unbundled network elements, transport and termination and resale services*, Application No. C-2516/PI-49, Testimony of Douglas Denney (filed July 20, 2001) (07/20/01 Denney Direct) at 1.

21 *In the Matter of the Commission, on its own motion, to investigate Qwest Corporation's rates for interconnection unbundled network elements, transport and termination and resale services* Application No. C-2516/PI-49, Rebuttal Testimony of Douglas Denney (filed August 1, 2001) (08/01/01 Denney Rebuttal) at 13.

22 08/09/01 Tr. at 259.

23 08/01/01 Denney Rebuttal at 13.

24 08/09/01 Tr. at 236.

25 *Id.* at 237-238.

26 08/01/01 Denney Rebuttal at 1.

incorporate updated information on line counts, expenses and network usage. AT&T contended the HAI model calculates the cost of unbundled network elements, universal service and interconnection.²⁷

27. AT&T argued the HAI model is non-proprietary. It utilizes non-proprietary line counts, usage data and over 1,400 user adjustable inputs. The HAI model contains extensive documentation describing its operation and input values. The documentation on inputs defines the more than 1,400 user adjustable inputs and the source from which they were derived.²⁸

28. Documentation supporting the HAI model indicates it uses least-cost, most-efficient technology. It is fully capable of supporting voice and data services and uses TELRIC pricing.²⁹

29. AT&T claimed the HAI model is the best tool available for the purpose of establishing unbundled network element costs in Nebraska.³⁰

30. In addition, AT&T argued the model produces results at the wire center, density zone and cluster level, making it especially suitable for cost-based geographic deaveraging and proposed creating zone rates using the HAI model.³¹

31. AT&T argued the Qwest-sponsored loop model is inferior to the HAI model in that it does not use Nebraska-specific customer location data in designing outside plant facilities.³² AT&T also argued that certain aspects of the ICM do not reflect the least cost forward-looking means of placing telecommunications facilities³³ and the Commission should reject the use of Qwest's ICM.³⁴

Staff

27 07/20/01 Denney Direct at 1.

28 07/20/01 Denney Direct at 1.

29 HAI Model v5.0 documentation.

30 08/01/01 Denney Rebuttal at 1.

31 07/20/01 Denney Direct at 1; 08/01/01 Denney Rebuttal at 13.

32 08/01/01 Denney Rebuttal at 2-3.

33 *Id.* at 4; 9-10.

34 *Id.* at 14.

32. Staff argued in support of an alternative methodology for creating zone rates. Results from three of the four models included in this proceeding were used; the HAI, developed by AT&T, the Synthesis Model (HCPM), developed by the FCC, and the Benchmark Cost Proxy Model (BCPM), recommended by this Commission to the FCC for federal universal service.³⁵

33. All three models were run, using the inputs designated by the developers, to calculate TELRIC plus common loop costs for each wire center. A zone price was then calculated for each model. To do this, the cost associated with each wire center in a particular zone was weighted by the number of lines in the wire center relative to total lines in the zone. Finally, a simple average, across all three models, of the resulting model-specific zone cost is calculated, resulting in Loop UNE rates by zones.³⁶

34. Dr. Rosenbaum testified that this approach to setting rates follows TELRIC pricing principles adopted by the FCC.³⁷ Specifically, the Staff's methodology develops rates that are non-discriminatory, TELRIC based and reflect forward-looking, efficient technologies.³⁸

35. Dr. Rosenbaum reasoned that the BCPM, HCPM, and the HAI model are superior to the ICM because they first determine the location of the customers and then design plant to provide service to those locations.³⁹ Dr. Rosenbaum opposed the ICM because it uses standard distribution designs as the starting point for designing facilities instead of actual customer

35 *In the Matter of the Nebraska Public Service Commission, on its own motion, to conduct an investigation to determine which cost study model should be recommended to the FCC for determining federal universal service support, Application No. C-1633, order (May 22, 1998).*

36 *In the Matter of the Commission, on its own motion, to investigate Qwest Corporation's rates for interconnection unbundled network elements, transport and termination and resale services, Application No. C-2516/PI-49, Direct Testimony of Dr. David I. Rosenbaum (filed July 20, 2001) (07/20/01 Rosenbaum Direct) at 6.*

37 *In the Matter of the Commission, on its own motion, to investigate Qwest Corporation's rates for interconnection unbundled network elements, transport and termination and resale services, Application No. C-2516/PI-49, Reply of Dr. David I. Rosenbaum (filed August 1, 2001) (08/01/01 Rosenbaum Reply) at 4.*

38 *Id.* at 8-9.

39 07/20/01 Rosenbaum Direct at 3.

locations.⁴⁰ This distribution design method fails to gain any economies associated with actual line volumes and results in overestimation of plant in denser wire centers.⁴¹ As investment determines cost, misestimating investment will likely lead to misestimating cost.⁴²

36. Dr. Rosenbaum argued the three models (HCPM, BCPM and HAI) all rely on actual customer location data to design outside plant facilities.⁴³ Dr. Rosenbaum argued that all three models determine "...an efficient, forward-looking design" for costing loop facilities.⁴⁴ He also cited the HCPM documentation that states the model can be used in a variety of regulatory arenas as an "...independent source of information about forward-looking costs...."⁴⁵ Based on analysis, Dr. Rosenbaum concluded that all three models produced forward-looking costs.⁴⁶

37. Alltel concurred with Dr. Rosenbaum's Loop UNE pricing approach, "...using the average of multiple models to provide UNE loop rates is reasonable and practical...." ⁴⁷

2. Loop Inputs

a. Cable Placement Cost

38. Cable placement costs are the costs of placing cable in the ground or on poles.

39. Qwest argued that these costs are the largest single component of outside plant costs averaging more than 60 percent of Qwest's total investment in buried cable facilities.⁴⁸ Qwest proposed cable placement costs are derived from current network contracts with vendors that place Qwest's buried plant facilities in Nebraska. Each of the categories of buried plant

40 *Id.* at 3-5.

41 *Id.* at 4.

42 08/01/01 Rosenbaum Reply at 1.

43 07/20/01 Rosenbaum Direct at 3.

44 *Id.* at 5.

45 *Id.*

46 *Id.*

47 08/08/01 Tr. at 115.

48 07/20/01 Buckley Direct at 11.

(Density Group 1 (DG1), DG2, DG3, DG4, DG5, Feeder-Urban and Feeder-Rural) has its own placement activity matrix, and therefore, reflects the percentage of trenching, boring, cutting and restoring asphalt, etc. that is reasonable for each density group.⁴⁹ In densely populated areas, Qwest's ICM used a higher percentage of boring than the other models.⁵⁰ The company contended this is justified by actual plant replacement experiences in Omaha, Nebraska, and Bismarck, North Dakota. In Omaha, Qwest placed over 65 percent of the new facilities using directional boring placement techniques.⁵¹ In Bismarck, a cable television company, interviewed by Qwest, placed approximately 50 percent of buried plant using boring techniques.⁵²

40. AT&T's witness, Mr. Douglas Denney, supported the use of the HAI model placement costs and explained these are the costs an efficient carrier that places the plant over the long run would incur.⁵³ He showed that the placement costs used in the HAI model are within a reasonable range of those used in the HCPM adopted by the FCC.⁵⁴

41. Staff discussed the difficulty of comparing placement costs between models. As stated by Dr. Rosenbaum, "...[e]ven raw costs are difficult to compare across models. The BCPM uses the same value in each density zone. The HCPM and the HAI model adjust those costs across zones. Hence, the final 'weighted average' cost of any type of placement is difficult to calculate and almost impossible to compare across models."⁵⁵

b. Cost Sharing

42. Cost sharing refers to the sharing of cable placement costs among multiple utility companies or other entities. Utilities can share poles for aerial cable, conduit systems for underground cable and trenches for buried cable. To share in placing cable, multiple providers must access a certain area at approximately the same time.

49 *Id.* at 13.

50 *Id.* at 21.

51 *Id.*

52 *Id.* at 22.

53 08/01/01 Denney Rebuttal at 3.

54 *Id.* at 4.

55 08/01/01 Rosenbaum Reply at 7.

43. The Qwest-supported LoopMod assumes that the telephone company will pay 50 percent of the costs of placing aerial cable, 80 percent of the costs of placing buried cable, and 95 percent of the costs of placing underground cable.⁵⁶ These inputs assume that the opportunity to share will occur primarily in undeveloped areas where a developer will provide the trench at no cost to the company. In developed areas or areas where there is not a developer, the company will bear the cost of trenching, and there will be little opportunity to share.⁵⁷ Qwest provided limited evidence suggesting that it was able to share in placing buried cable approximately 18 percent of the time between 1995 and 1999.⁵⁸

44. The HAI model utilizes various structure sharing percentages, based on zone density and type of plant.⁵⁹ Mr. Denney supports these assumptions by identifying various sharing opportunities available to the ILECs. These opportunities include the use of developer-placed trenches,⁶⁰ the placing of feeder and distribution cables in the same trenches,⁶¹ and sharing with other utilities.⁶² He also cites quotes from Qwest's management, which state they seek to minimize costs through various sharing opportunities.⁶³

45. In analyzing the sharing ratios in the different models, Staff acknowledged the amount of sharing that would occur in a "scorched node model" requires an estimate, as the rebuilding of an entire telephone system has never been done.⁶⁴ Historic data and current practices would not necessarily represent sharing ratios relevant to this new network.⁶⁵

56 07/20/01 Buckley Direct at 26.

57 *Id.*

58 *Id.*

59 08/09/01 Tr. at 260.

60 *Id.* at 268-269.

61 08/01/01 Denney Rebuttal at 5-6

62 08/09/01 Tr. at 264.

63 08/01/01 Denney Rebuttal at 4.

64 08/01/01 Rosenbaum Reply at 6.

65 *Id.*

c. Plant Mix

46. Plant mix refers to the percentage of cable facilities that are buried, placed in underground conduit or placed on telephone poles.

47. Qwest's model assumes the use of underground placement for cables within certain distances of the central office. The distances vary by size of wire center. This design reflects that underground placement techniques are most commonly used in densely-populated areas adjacent to central offices. For the remaining plant mileage, LoopMod uses an aerial percentage input to split the cable between buried and aerial.⁶⁶ The default input for aerial is 14 percent,⁶⁷ significantly greater than the three percent of actual aerial facilities Qwest purported to have in the state.⁶⁸

48. The HAI model determines plant mix using a starting point percentage and, subsequently, determining whether it is more cost effective to shift between aerial and buried.⁶⁹

49. In response to Qwest's testimony, Mr. Denney pointed out it is incorrect to compare Qwest's purported three percent actual aerial facilities in Nebraska, derived from data recorded as structure miles, and Qwest's aerial plant mix input value of 14 percent, typically taken from Automated Reporting Management Information System (ARMIS) data, reported as "sheath" miles.⁷⁰

d. Fill Factors

50. Fill factors represent the relationship between plant capacity and the amount of the plant used.

51. Qwest uses a design fill factor of 80 percent to 100 percent for feeder facilities.⁷¹ Distribution facilities are

66 07/20/01 Buckley Direct at 28.

67 *Id.*

68 08/08/01 Tr. at 11.

69 08/09/01 Tr. at 283.

70 *Id.* at 284-285.

71 Loop Module (LoopMod) User Manual, Version 2, (April 2000) at 3.8.

designed to provide each living unit with access to two or three lines.⁷²

52. The HAI model assumes a design fill factor of 75 percent for distribution plant and 85 percent for feeder facilities.⁷³ Mr. Denney supported high fill factors, reflective of current demand, not future, "ultimate" demand.⁷⁴ Cost savings, due to growth, should then be realized in a model by properly accounting for growth.⁷⁵

3. Intra-Building Cable/Campus Cable

a. Background

53. Intra-building cable are the facilities that extend from the demarcation to the end user, in a multi-tenant environment (MTE). A MTE represents a high concentration of customers in a very limited geographic location. In some cases the ILEC controls the on premises, intra-building wiring.

54. Campus cable is the last portion of an ILEC's distribution facilities. Campus cable extends from an interface, which serves several building locations in a "campus" environment, to each individual location.

55. In 1999, the FCC modified the loop definition to ensure access to unbundled subloop elements. Specifically, the FCC concluded that ILECs must provide unbundled access to subloops, at technically-feasible points including a point near the customer premises, such as the point of interconnection between the drop and the distribution cable, the network interface device (NID), any feeder distribution interface (FDI), whether the FDI is located at a cabinet, controlled environment vault (CEV), remote terminal, utility room in a multi-dwelling unit, or any other accessible terminal.⁷⁶ This action allows competitors unbundled access to the campus cable subloop element

72 07/20/01 Buckley Direct at 30.

73 08/01/01 Denney Rebuttal at 6.

74 *Id.* at 7-8.

75 *Id.*

76 *In the Matter of Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98; Third Report and Order and Fourth Further Notice of Proposed Rulemaking, FCC 99-238 (rel. November 5, 1999) ¶¶ 209-210.

and the inside cable subloop element, in cases where the incumbent owns and controls wire inside the customer premises.

b. The Position of the Parties.

Campus Wire

56. Qwest proposed a recurring campus wire rate and a separate nonrecurring charge for installing jumpers between a building terminal, serving as the functional equivalent of a SAI, and a "detached" terminal. Qwest claimed these rates are developed by the ICM and the Enhanced Nonrecurring Cost Model (ENRC) according to TELRIC principles.⁷⁷

Intra-Building Wire or Cable

57. Qwest proposed a recurring rate for intra-building wire. Qwest testified that this rate complies with TELRIC pricing principles because it was developed by the ICM using reasonable and realistic forward-looking inputs.⁷⁸

58. AT&T proposed a competing recurring rate for intra-building wire.⁷⁹ AT&T used the HAI model to estimate an average rate for intra-building wire and determine "a proxy of what the building cable costs would be."⁸⁰ AT&T based that estimate on 480 feet of cable, from approximately three Nebraska clusters, each with "at least" 1,300 lines.⁸¹ AT&T testified that its proposed rate complies with TELRIC pricing principles.⁸²

77 07/20/01 Fleming Direct at 45-46; Exhibit GYF-04.

78 *In the Matter of the Commission, on its own motion, to investigate Qwest Corporation's rates for interconnection unbundled network elements, transport and termination and resale services* Application No. C-2516/PI-49, Rebuttal Testimony of Garrett Y. Fleming (filed September 9, 2001) (09/06/01 Fleming Rebuttal) at 2-3 and Exhibit GYF-1; 07/20/01 Fleming Direct at 2-8.

79 08/08/01 Tr. at 209.

80 *Id.* at 275.

81 *Id.* at 274-278.

82 *In the Matter of the Commission, on its own motion, to investigate Qwest Corporation's rates for interconnection unbundled network elements, transport and termination and resale services* Application No. C-2516/PI-49 Direct Testimony of Natalie J. Baker (filed July 20, 2001) (07/02/01 Baker Direct) at 19.

4. Zoning

59. Staff employed a statistical cluster analysis methodology to group the exchanges into cost-based zones. The analysis reviewed the average cost per line of each exchange and arranged similar-cost exchanges into zones.⁸³ Dr. Rosenbaum's testimony included cost-based statistical cluster analysis resulting in three and four zone scenarios.⁸⁴ Staff notes it is necessary to include the wire centers, which were previously deleted due to Qwest's intention to sell them, as the transaction was canceled.

60. "Alltel concurs with Dr. Rosenbaum's approach of four zones, with one caveat...." That caveat being, the insertion of the Grand Island exchange in Zone 1, after removal from Zone 2.⁸⁵

B. Stipulated Rates

1. Qwest/Cox

61. On October 4, 2001, Qwest and Cox filed a stipulation with the Commission. Within that stipulation, the parties agreed to recurring rates for campus wire and intra-building wire of \$3.95 and \$0.55, respectively, and a nonrecurring rate of \$80.00 in the cases in which Qwest installs a jumper between a building terminal and a "detached" terminal. Should Cox install the jumper, between its own building terminal and an inside or outside "attached" Qwest building terminal, no charge is incurred.⁸⁶

62. Qwest argued that the campus wire recurring rate complied with TELRIC pricing principles as it falls between a Qwest-alleged TELRIC-compliant rate and a Cox-alleged TELRIC-compliant rate.⁸⁷ Qwest also indicated the ICM could produce the stipulated rates using inputs that Qwest agreed are realistic.⁸⁸

83 07/20/01 Rosenbaum Direct at 6-7.

84 *Id.* at 8-9.

85 08/08/01 Tr. at 115.

86 Qwest/Cox Stipulation.

87 *In the Matter of the Commission, on its own motion, to investigate Qwest Corporation's cost and to establish rates for interconnection, unbundled network elements, transport and termination, and resale services*, Application No. C-2516/PI-49 Comments (filed January 4, 2002) (01/04/02 Qwest Stipulation Comments) at 11.

88 *Id.*

63. Qwest argued that the campus wire nonrecurring rate, agreed upon by Qwest and Cox, comports with TELRIC pricing principles because it is based on the efficient and realistic cost of providing the service. The rate agreed upon by Qwest and Cox estimates the efficient costs based on one hour of travel time and field work incurred when installing jumpers.⁸⁹

64. Qwest argued the intra-building wire rate complied with TELRIC pricing principles because it falls between allegedly TELRIC-compliant rate estimates submitted by Qwest and AT&T. Additionally, Qwest extolled the TELRIC compliance of the intra-building wire rate as both Qwest's ICM and AT&T's HAI model can produce a rate of \$0.55, if each model simply used different, but nonetheless realistic input values.⁹⁰

2. Qwest/Alltel

65. On December 4, 2001, Qwest and Alltel filed with the Commission, a stipulation regarding certain UNE rates. Within the stipulation, the parties agreed to recurring DS-0 loop rates of \$15.14, \$35.05 and \$69.96 for zones one through three, respectively, consistent with the zone designations included in Dr. Rosenbaum's three-zone proposal filed August 8, 2001.⁹¹

66. The proposed rates were based on the average loop cost developed by Staff. The lone difference between the stipulated rates, and those proposed by Staff, was the selection of the deaveraged zones. Alltel testified in the proceeding that it desired a change to the deaveraging recommendation Dr. Rosenbaum proffers.⁹² Dr. Rosenbaum proposed two alternate schemes, both of which group wire centers based on costs.⁹³ He then stated a preference for the proposal to divide the state into four zones.⁹⁴ Qwest and Alltel agreed to the scheme that used only three zones. While the four-zone proposal had a lower rate for Zone 1 (Omaha) than the three-zone proposal, it had higher rates for mid-sized cities such as Grand Island and Norfolk. Alltel, wishing to provide competition in many of these cities,

89 *Id.* at 13.

90 *Id.* at 12.

91 Qwest/Alltel Stipulation.

92 08/08/01 Tr. at 115-116.

93 07/20/01 Rosenbaum Direct at 8-9.

94 07/20/01 Rosenbaum Direct at 8.

preferred a structure that made it more economically viable to compete in these mid-sized cities, as well as in major metropolitan areas such as Omaha.⁹⁵

C. Discussion

1. Loop UNE Recurring Rates

67. This Commission finds the ICM LoopMod, presented by Qwest, is inappropriate for use in the Commission's calculation of the Loop UNE rate for the following reasons:

68. The ICM LoopMod does not provide a valid estimate of deaveraged loop costs. The LoopMod, rather than actually locating customers and building appropriate plant to those locations, assigns one of five packages to each service area, depending on the area's characteristics. This method makes no adjustments for line counts in service areas that use the same package and, therefore, ignores economies of scale and scope when providing services to higher density areas. The LoopMod tends to over-invest in dense wire centers and under-invest in sparse wire centers. These procedures lead to an inaccurate calculation of investment and, as investment ultimately determines cost, an inaccurate estimation of costs.

69. Moreover, the Commission has determined that, because of its assignment process, the LoopMod's investment development is not more accurate than the other models, and probably less accurate. Since the developed investment is the foundation on which UNE rates are determined, rates based on inaccurate investments are subject to suspicion. Therefore, this Commission rejects the use of the ICM LoopMod related to the pricing of Loop UNE rates.

70. The Commission finds the remaining models, HAI, BCPM and HCPM, all utilize a reasonable method to locate customers and build plant. All are designed to reflect costs an efficient company would incur in providing facilities, using the latest and least-cost technologies. All design plant to serve efficiently, customers at their existing locations. All employ scorched node, TELRIC, forward-looking, state-specific designs to determine loop investment and Loop UNE rates. The Commission finds these models comply with the TELRIC principles adopted by the FCC in the First Report and Order on Interconnection. Further, both Qwest and Alltel acknowledged that the rates adopted in the Qwest/Alltel Stipulation could have been produced

95 08/08/01 Tr. at 115-122 and 140-141.

by using arguably reasonable TELRIC inputs and the cost models sponsored by both AT&T and Qwest in this proceeding.

71. As seen throughout this proceeding, model results can be sensitive to the choice of inputs. Altering inputs can result in a number of possible outcomes. Each party's position can be essentially advocated by the particular values selected for the individual inputs in each model. The positions of the parties regarding the most critical inputs to the models (i.e., placement costs, structure sharing, fill factors and plant mix) were all addressed by Dr. Rosenbaum.⁹⁶

72. In his reply exhibit, Dr. Rosenbaum produced a comparison of the major inputs into each of the models Staff used to derive its recommendation.⁹⁷ A review of this exhibit showed that structure sharing, fill factor and plant mix inputs vary across the three models studied. For some inputs, one model will use default values that generate relatively higher UNE costs. For other inputs, the same model may use default values that generate the lowest UNE cost. All three models provide significant documentation supporting their default values. Consequently, the Commission is reticent to make specific findings related to individual inputs in this proceeding related to Loop UNE rates.

73. The Commission believes any possible bias contained in each model and its associated inputs, will be minimized by utilizing the HAI, HCPM, and BCPM, each model's respective default inputs for cable placement, cost sharing, plant mix, and fill factors, Staff's adjustments to cost of capital and depreciation, where appropriate, and the averaging methodology presented by Staff. Further, the Commission agrees with Dr. Rosenbaum that the Staff's methodology develops cost-based Loop UNE rates that are nondiscriminatory, TELRIC-based, and reflect forward-looking, efficient technologies.

74. Therefore, the Commission finds the zone Loop UNE costing methodology presented by Staff is consistent with the TELRIC principles adopted by the FCC and, thus, reasonable and appropriate to use in the calculation of Loop UNE rates. A table listing Loop UNE rates, by zone, is included as Appendix A.

96 08/01/01 Rosenbaum Reply at 6-9.

97 *Id.* at Table 1.

2. Intra-Building Cable/Campus Cable

75. AT&T proposed an intra-building cable rate estimation methodology, using the HAI model and a sample consisting of a total of 480 feet of cable, from three Nebraska buildings, each with greater than 1,300 lines.⁹⁸ The Commission believes the study sample chosen by AT&T does not represent a statistically valid sample of Nebraska MTEs.

76. Further, the Commission believes AT&T's sample results in an estimated intra-building cable rate incorporating much greater economies of scale than can be expected or realized in Nebraska. AT&T ultimately testified a 1,300-line average Nebraska building is doubtful.⁹⁹ Thus, the Commission finds AT&T's argument without merit.

77. Upon review, Dr. Rosenbaum testified that the campus cable and intra-building cable rates contained in the Qwest/Cox Stipulation fall within a reasonable range of TELRIC-based rates and recommends the Commission approve those rates.¹⁰⁰ Further, Dr. Rosenbaum believed the ICM is capable of producing rates similar to the stipulated rates, with variations to the ICM inputs. Dr. Rosenbaum thus concluded, using range of reasonable assumptions, that the stipulated rates are TELRIC-based and supported by a cost model.¹⁰¹

78. Hence, the Commission finds the stipulated rates of \$0.55 and \$3.95, for intra-building cable and campus cable, respectively, are within a reasonable range of TELRIC-compliant rates. Specifically, the Commission finds the stipulated rates for intra-building cable and campus cable comply with TELRIC pricing principles and should be approved. The Commission further finds the rates herein adopted should be made available, by Qwest, to all requesting parties.

3. Zones

79. The Commission is required by the FCC to deaverage Loop UNE rates into a minimum of three zones. That is, areas with similar cost characteristics are to be grouped into no less than three zones, and an average price developed for each zone. A grouping of areas exhibiting similar cost structures allows

98 08/09/01 Tr. at 274-278.

99 *Id.* at 278.

100 *Id.* at 146-147.

101 *Id.* at 300-301.

for the opportunity to minimize the cross-subsidization that may occur when developing averaged prices across regions that exhibit cost differences.

80. In order to satisfy the FCC's requirement that zone development be cost related, and to remain consistent and focused on the Commission's goal of developing Loop UNE rates that are both fair and accurate, while striving to foster an environment in which competition may flourish, the Commission finds zone deaveraging must stand on sound economic principles.

81. Therefore, the Commission finds Loop UNE prices should be deaveraged over three zones. The zones should be defined by the statistical cluster analysis methodology developed by Staff. The analysis uses the average cost per line of each exchange and arranges similar cost exchanges into zones. The Commission feels this methodology fosters competition and is appropriate, cost-based, economically sound, competitively accurate, and based on TELRIC pricing principles.

82. All 69 Qwest exchanges have been included in the final analysis. A table listing the Qwest exchanges, by zones, is included as Appendix B.

IV. TELRIC MODEL SELECTION

83. The Commission is charged with determining pricing methodologies for setting all UNE prices. Any methodology determined by the Commission must be one that adheres to a forward-looking economic cost basis and ensures all UNEs are offered at "...rates, terms and conditions that are just, reasonable, and nondiscriminatory."¹⁰²

84. The Commission received plans and recommendations on the pricing of UNEs other than loop from two outside parties, AT&T and Qwest. AT&T presented and testified in support of the HAI model and its default inputs. Qwest presented and testified in support of the ICM and its default inputs.

A. Position of the Parties

85. The parties each claimed their respective models embodied the appropriate methodology with which to determine UNE rates. The parties, in essence, argued that each respective model is consistent with the requirements outlined by FCC Rules codified at 47 CFR §§ 51.505 and 51.511.

102 47 CFR § 51.503.

86. The parties differed, however, with regard to several inputs and methodologies between the ICM and the HAI models. These include, avoidable costs, network operations expense, support assets, placement, sharing, plant mix, and fill factors. The Commission addresses each model below and each input issue in Section V.

B. Discussion

87. As required by FCC rule, and consistent with the intent of the Commission in developing rates for UNEs, a model should be forward-looking, employ an economic cost-based pricing methodology, use scorched node, TELRIC, and efficient network design, exclude factors such as embedded costs, retail costs, opportunity costs, and not cross-subsidize revenues.¹⁰³

88. The Commission finds the intent of each model submitted, the HAI model and the ICM, is to meet the criteria described above. Each model employs various techniques and methodologies in an attempt to develop various UNE rates, with essentially the same goal, that is UNE rates that are forward-looking, and TELRIC-based.

89. The Commission's refusal to use the ICM in the calculation of the Loop UNE rate revolves around the ICM's use of "distribution areas," and an inaccurate development of loop investment amounts. These methodologies are unique to the calculation of the Loop UNE. Likewise, the inputs; placement, sharing, and plant mix, all issues of contention between the parties, relate solely to the determination of Loop UNE rates. Thus, the Commission finds these Loop UNE issues are not germane to the determination of the remaining UNE rates and are, therefore, not considered when determining the remaining UNE rates.

90. The Commission finds the HAI model is limited in its ability to determine ubiquitous UNE rates. The ICM, on the other hand, has the ability to calculate rates for a myriad of elements.

91. The Commission finds, based on the information available in the record and the goals of this Commission in setting rates for various rate elements, the ICM, presented by Qwest, is currently the most appropriate model for this Commission to use in the development of all interconnection, UNE, and transport and termination rates, excluding the Loop

103 47 CFR § 51.505.

UNE, and building cable and campus wire UNEs, as discussed above.¹⁰⁴

V. ICM INPUTS

92. Qwest's ICM, a model intended to calculate and produce TELRIC-based UNE rates, utilizes a plethora of data inputs. The ultimate impact realized in resulting UNE rates may vary depending on the relative impact each individual input has in the creation of the UNE rates.

93. Parties sought various adjustments to Qwest's proposed factors and inputs, to more accurately reflect the expense of an efficient forward-looking carrier.

94. Thus, for the remaining UNE rates not discussed above, the Commission shall concentrate its efforts on those ICM inputs that, within the scope of the record, have been indicated as inputs that are contentious, key, or produce substantive changes in the calculation of UNE rates.

A. Avoidable Costs (Product Management, Sales and Advertising, and Uncollectables)

1. Background

95. Avoidable costs are those incurred by a LEC to perform the provision of retail services, and, by definition, are avoidable when an ILEC provides wholesale telecommunications services. These costs are, therefore, not included in the calculation of wholesale rates.

2. Position of the Parties

96. Alltel testified Qwest did not prove all production management and sales costs were incurred and unavoidable as defined by the FCC. Alltel claimed Qwest "...included expenses like Product Management and Sales that are expressly disallowed per FCC rules."¹⁰⁵ Alltel further argued avoidable wholesale costs, such as product management and sales expenses, must be

104 See *supra*. paragraph 19.

105 *In the Matter of the Commission, on its own motion, to investigate Qwest Corporation's rates for interconnection unbundled network elements, transport and termination and resale services*, Application No. C-2516/PI-49, Direct Testimony of Brad Hedrick (filed August 29, 2001) (08/29/01 Hedrick Direct) at 2.

both incurred and unavoidable and meet the criteria as defined by FCC Rule at 47 CFR § 51.609.¹⁰⁶

97. Qwest argued all retail-related expenses were removed, and the avoidable wholesale costs in question were included in development of product management and sales factors as they are costs incurred by Qwest in the provisioning of wholesale services.

98. Qwest defined Wholesale Services to include "...access service...", "...interconnection services for wireless providers and other facilities-based carriers...", and "...UNEs to other carriers for wholesale purposes."¹⁰⁷ Qwest testified it provides wholesale product management services to IXCs and CLECs, including: new or revised tariff offerings, wholesale switched and dedicated access, unbundled products, basic office services, and produces studies used in support of various regulatory activities, and market forecasting and analysis. Similarly, Qwest argued sales costs, incurred to negotiate contracts with CLECs and to respond to service-related requests, are also wholesale in nature.¹⁰⁸

99. Staff believes using a combined wholesale factor, for product management, sales, and uncollectables, that included expenses related to access services, interconnection services, and UNEs, as per Qwest's definition of Wholesale Services, does not accurately reflect a mature business in a forward-looking environment. A proxy factor derived from the mature IXC access service category alone is more appropriate.

100. Qwest acknowledged that a separate access factor can be determined for product management and sales, but contended that there is no separate factor available for uncollectables. Qwest further claimed most of the wholesale uncollectable amount can be attributed to access.

106 *In the Matter of the Commission, on its own motion, to investigate costs studies to establish Qwest Corporation's rates for interconnection, unbundled network elements, transport and termination and resale services*, Application No. C-2516/PI-49, Transcript, (September 19, 2001), (09/19/01 Tr.), at 59-60.

107 *Id.* at 20.

108 *In the Matter of the Commission, on its own motion, to investigate costs studies to establish Qwest Corporation's rates for interconnection, unbundled network elements, transport and termination and resale services*, Application No. C-2516/PI-49, Rebuttal Testimony of D.M. (Marti) Gude (filed September 6, 2001) (09/06/01 Gude Rebuttal) at 4-6.

3. Discussion

101. Alltel claimed Qwest included avoidable wholesale costs when determining factors for Accounts 6611, Marketing - Product Management, and 6612, Marketing - Sales, citing criteria defined in FCC Rule at 47 CFR § 51.609. Alltel provided no specific evidence, other than to state an analysis had been performed.¹⁰⁹

102. The rule cited by Alltel addresses the determination of avoidable retail costs. It focuses on the criteria to be used in determining whether expenses, contained in various accounts, including accounts 6611 and 6612, should be excluded as avoidable retail costs. The rule reads, in part, that costs, including those in accounts 6611 and 6612,

"...may be included in wholesale rates only to the extent that the incumbent LEC proves to a state commission that specific costs in these accounts will be incurred and are not avoidable with respect to services sold at wholesale, or that specific costs in these accounts are not included in the retail prices of resold services."¹¹⁰

103. The Commission notes FCC Rule at 47 CFR § 51.609 falls under Section G, Resale. Specifically, Section G identifies the terms and conditions under which LECs offer telecommunications services to CLECs for resale.¹¹¹ As such, the Commission finds this rule is not germane to the issue at hand. However, regardless of the rule placement, it specifically states wholesale rates may include unavoidable wholesale product management and unavoidable wholesale sales expense.

104. Further, the Commission is not persuaded by Alltel's argument that Qwest has included avoidable wholesale expenses in factor development. Qwest experts clearly addressed this issue in their testimony. They clearly stated only wholesale costs were used. Furthermore, Alltel provided no evidence to rebut the experts' testimony.

105. Thus, this Commission finds expenses, included in accounts 6611 and 6612, and identified as solely wholesale in

109 08/29/01 Hedrick Direct at 2.

110 47 CFR § 51.609(d).

111 47 CFR § 51.601.

nature, are appropriate to include in determining factors for product management and sales.

106. In addition, the Commission believes that factors based on a mature business would more accurately reflect the costs incurred in a forward-looking environment and would comply with TELRIC principles. Therefore, the Commission finds an access proxy factor of 0.012980 for product management, and 0.004651 for sales, is appropriate and should be utilized in the calculation of ICM UNE rates. The Commission does not, at this time, recommend a proxy factor for uncollectables that differs from the Qwest default value. Further, the Commission finds it appropriate to require Qwest to include the product management and sales factors, adopted above, in all phases and models included in this proceeding.

B. Maintenance Expense Factor

1. Background

107. Maintenance expense factors are applied to investments to calculate a recurring annual expense, associated with a given investment, to maintain the equipment over the life of the plant. Maintenance expense factors are used in the development of UNE rates.

2. Position of the Parties

108. Alltel testified the maintenance expense factors used by Qwest seem high. Alltel claimed to have performed an analysis based on Qwest-filed 2000 ARMIS data, calculating a value of 1.09 percent for central office equipment. Alltel compared this calculated value to the Qwest maintenance factor values for switching and circuit equipment as justification for its argument.¹¹²

109. Qwest asserted the data used in the development of maintenance factors are the same data reported to the FCC via the ARMIS reporting system.

3. Discussion

110. Qwest's central office equipment category included multiple subcategories, including Digital Electronic, Operator Systems, Radio Systems Expense, and Circuit Equipment, which included further subcategories, including; Digital Circuit Equipment, Subscriber Pair Gain - Digital, Subscriber Pair Gain

112 09/19/01 Tr. at 62.

- Digital (SONET), Other Digital Equipment, Other Digital Equipment (SONET), Subscriber Pair Gain - Analog, and Other Analog Equipment.

111. Alltel's analysis compared a maintenance factor value for central office equipment, the parent category, to maintenance factor values for switching and circuit equipment, subcategories of the parent.

112. Alltel provided no additional justification for its claim.

113. The Commission finds it reasonable to expect that subcategories may have factors that differ from the total category average. However, we also find it mathematically reasonable to expect a weighted average of appropriate central office equipment subcategories reported by Qwest to result in a value equal to the maintenance factor value for the parent category, Central Office Equipment, reported by Alltel.

114. The Commission finds Alltel's comparison is erroneous. Furthermore, we find that Qwest's procedure for calculating maintenance costs is reasonable, transparent and reflects the underlying data. Therefore, the Commission finds Qwest's default maintenance factor values are proper and appropriate, subject to Commission's findings made herein.

C. Occupational Expense Factor

1. Background

115. The Business Fees factor estimates the expenses associated with Other Operating Taxes such as gross receipts and occupation taxes, franchise fees, capital stock taxes, superfund taxes and other miscellaneous operating taxes.¹¹³ The business fees factor is included in the ICM and used in the development of UNE rates.

2. Position of the Parties

116. Alltel stated it had performed an analysis of Qwest's revised ITP TELRIC study, Case Study ID #5512. As per the analysis, Alltel believed the business fees factor contained in the model is excessive. Alltel credited the inflated value to the incorrect inclusion of occupation tax amounts in the

113 09/06/01 Gude Rebuttal at 11.

development of the business fees factor.¹¹⁴ Alltel further stated, should the Commission find the inclusion of occupation tax amounts is inappropriate; any findings should apply to all Qwest TELRIC studies.¹¹⁵

117. Qwest acknowledged "...the business fee factor development process inadvertently, but incorrectly, incorporated occupation tax amounts in Nebraska which are not assessed against wholesale service deliverables." Further, Qwest agreed to remove the Nebraska occupation tax from all Nebraska cost models and alter the business fees factor based on the Commission's findings in this proceeding.¹¹⁶

3. Discussion

118. The Commission agrees with both parties and finds the removal of occupation tax amounts from the business fees factor appropriate and correct in order to develop true cost-based UNE rates. Further, the Commission finds it appropriate to require Qwest to include the above finding in all phases and models included in this proceeding.

D. Cost of Money (Rate of Return)

1. Background

119. Cost of capital is used to calculate the cost of a firm's use of financial capital and is made up of three components, the cost of debt, the cost of equity and a debt to equity ratio. When the two cost components are weighted together by the debt-to-equity ratio, the result is the composite cost of capital, or rate of return.

2. Position of the Parties

120. Qwest acknowledged, early on in this proceeding, the need to comply with the Commission-recommended rate of return used in the universal cost proceeding.¹¹⁷ Qwest agreed to alter cost of money for all Nebraska cost models based on the Commission's findings in this proceeding.

114 08/29/01 Hedrick Direct at 2.

115 09/19/01 Tr. at 64.

116 09/06/01 Gude Rebuttal at 12.

117 08/08/01 Tr. at 21.

121. Dr. Rosenbaum testified a cost of money value of 11.25 percent, equal to that recommended in the Commission universal cost proceeding,¹¹⁸ was employed in the development of the Staff's Loop UNE methodology.¹¹⁹ He also noted the FCC uses the same overall rate of return as that recommended by the Commission.¹²⁰

3. Discussion

122. The Commission finds a cost of equity value of 11.25 percent, a cost of debt value of 11.25 percent, and a debt to equity ratio of 50 percent, resulting in a composite cost of money value of 11.25 percent is proper and appropriate in order to develop true cost-based UNE rates. Further, the Commission finds it appropriate to require Qwest to include the herein-ordered composite cost of money value in all phases and models included in this proceeding.

E. Depreciation

1. Background

123. On May 22, 1998, in Application No. C-1633, the Commission determined and recommended, to the FCC, a model best suited to estimate the forward-looking costs of providing telecommunications and information services to rural, insular and high-cost areas of Nebraska for federal universal service purposes. The Commission identified the adopted inputs that deviated from the model's default inputs. Depreciation values were among those inputs.¹²¹

124. On June 25, 1998, Qwest filed an application seeking authority from the Commission to revise its depreciation rates. On August 4, 1998, in Application No. C-1832, the Commission determined the application fair and reasonable, and in the public interest. Consequently, it granted the application to revise depreciation rates.¹²²

118 *In the Matter of the Nebraska Public Service Commission, on its own motion, to conduct an investigation to determine which cost study model should be recommended to the FCC for determining federal universal service support, Application No. C-1633, Order (May 22, 1998) (Federal USF Model Order) at 7.*

119 *Id.* at 96.

120 07/20/01 Rosenbaum Direct at 6.

121 Federal USF Model Order.

2. The Position of the Parties

125. In calculating the UNE costs at issue in this proceeding, Qwest proposed the depreciation parameters prescribed by the Commission for Qwest's Nebraska operation.¹²³

126. Qwest did not oppose and agreed to accept the depreciation rates ordered by the Commission for purposes of cost study development.

3. Discussion

127. The Commission finds it proper and appropriate to adopt the depreciation parameters and rates from Nebraska Application No. C-1832. The Commission previously determined these rates to be reasonable and in the public interest. These depreciation values are the most current set of depreciation rates adopted by the Commission and present the most likely forward looking lives of Qwest equipment. Further, the Commission finds it appropriate to require Qwest to include the herein ordered depreciation rates in all phases and models included in this proceeding.

F. Productivity and Inflation Factors

1. Background

128. The ICM utilizes historical Qwest accounting data to calculate ratios, or factors, to be applied to investment and direct expenses in an attempt to derive forward-looking wholesale operating expenses. Wholesale operating expenses represent the costs of maintaining, operating, marketing, and administering wholesale services and network elements on an annual basis.¹²⁴ These forward looking wholesale operating expenses are then included in the development of UNE rates.

129. Over time, a LEC will experience an increase in these expenses, due to inflation, and a decrease in expenses due to efficiency gains in productivity. Thus, the use of historical accounting data requires two adjustments to bring historical values to current levels. The Cost Savings Value and the

122 *In the Matter of the Application of US West Communication, Inc. of Denver, Colorado, seeking authority to revise its depreciation rates*, Application No. C-1832 (August 4, 1998).

123 08/01/01 Fleming Rebuttal at 5.

124 Integrated Cost Model User Manual, Version 2.1, (July 2000) at 51.

Inflation Factor are the inputs responsible for these adjustments.

130. The Cost Savings Value, also known as efficiency factor, or X-Factor, is a measure of the expected gain in productivity or efficiency a LEC experiences over time. The X-Factor is used in Qwest's Expense Factor Model (EFM) to account for the decrease in wholesale expenses, over time, due to gains in productivity.

131. The Inflation Factor is a measure of the inflation-induced expected decrease in the purchasing power of money experienced by a LEC. The Inflation Factor is used in the EFM to account for the increase in wholesale expenses, over time, due to inflation.

132. The X-Factor and Inflation Factor are both user-defined inputs contained in the EFM and can be modified by the user as necessary.¹²⁵

2. Position of the Parties

133. Qwest includes 1999 wholesale expenses in the ICM derived from actual expense data incurred in that year. Adjustments are then made to the 1999 historical wholesale expenses to adjust for changes during the 1999-2001 time period.¹²⁶ Qwest used the default annual X-Factor and default Inflation Factor values, contained in the ICM, to bring the historic wholesale expenses to the current period, 2001. The annual values are compounded to reflect the period in which the new prices would be in effect.

134. Qwest stated the default X-Factor included in the ICM is based on the productivity estimates contained in the FCC's Order, FCC 97-159.¹²⁷ Qwest utilized a weighted average of the X-Factor productivity estimates of the FCC, AT&T and the United States Telephone Association (USTA). This calculation results in an annual efficiency factor of 5.0 percent, and a two-year

125 *Id.* at 53-54.

126 *In the Matter of the Commission, on its own motion, to investigate cost studies to establish Qwest Corporation's rates for interconnection, unbundled network elements, transport and termination and resale services* Application No. C-2516/PI-49 Direct Testimony of D.M. (Marti) Gude (filed August 29, 2001) (08/29/01 Gude Testimony) at 15.

127 *Id.*

compounded efficiency factor value of 10.25 percent, Qwest's default X-Factor value.¹²⁸

135. With regard to the inflation factor, Qwest stated the default inflation value is based on a region-wide Wage & Salary Index, prepared for Qwest by the economic consulting firm Joel Popkin and Company, using Qwest specific circumstances including Qwest's union labor contract and compensation and benefits practices. Qwest claimed the use of a wage and salary index, as an inflation rate input value, is reasonable since the vast majority of Qwest's expense accounts consist of primarily salary-related costs. The annual wage and salary index of 4.3 percent results in a two-year compounded value of 8.78 percent, Qwest's default Inflation Factor.¹²⁹

136. Qwest argued these two factors adequately address most of the anticipated cost savings that would result from net productivity improvements and inflation and no additional adjustments would be required to account for publicized labor force reductions. Qwest argued that the productivity factors rely on pre-merger periods in which the telephone industry experienced numerous large employee reductions, thus post-merger force reductions would not change the factors.

3. Discussion

a. Efficiency Factor

137. Qwest claimed the X-Factor and the Inflation Factor are both key inputs.¹³⁰ The Commission agrees with this assertion, but is not persuaded by Qwest's additional arguments and makes the following findings related to these two factors and the values to be included in the calculation of forward-looking UNE rates in Nebraska.

138. Qwest stated the calculation of the efficiency factor included in the ICM as the default value is based on a weighted average of productivity estimates of the FCC, AT&T, and USTA, listed in the X-Factor Order.¹³¹ The Commission agrees with

128 *In the Matter of the Commission, on its own motion, to investigate cost studies to establish Qwest Corporation's rates for interconnection, unbundled network elements, transport and termination and resale services*, Application No. C-2516/PI-49, Hearing Exhibit 5, (September 19, 2001), (09/19/01 Hearing, Ex. 5).

129 *Id.*

130 08/29/01 Gude Testimony at 14.

Qwest in that the productivity estimates used by Qwest are listed in the X-Factor Order. However, the FCC went on to further determine, in reference to the productivity estimates submitted by USTA, the FCC "...cannot give any weight to its X-Factor estimates." In addition, the FCC stated, "...we will accord some weight to AT&T's estimates of the X-Factor, but will rely primarily on our own analysis...."¹³²

139. In the X-Factor Order, the FCC determined the Total Factor Productivity (TFP) approach, the ratio of a firm's total output to its total input, also used by the Bureau of Labor Statistics to measure productivity growth in the national economy, is an accurate and appropriate method to determine the X-Factor for LECs.¹³³ The FCC's X-Factor, derived on the basis of the TFP methodology, is based on growth and input price differential, the difference between the rate at which input prices change in the economy in general and the rate at which LEC input prices change, plus a Customer Productivity Dividend (CPD).¹³⁴ The FCC's X-Factor is based on data from 1986 to 1995.¹³⁵

140. This Commission finds it appropriate to base the efficiency factor chosen in this proceeding on a TFP methodology. We also find it appropriate to use the analysis performed by the FCC in the X-Factor Order. This Commission adopts the X-Factor determined by the FCC with two exceptions.

141. First, the Commission does not adopt the inclusion of the CPD. The FCC explicitly states the "...CPD will act as a mechanism to ensure that price cap LECs flow-through a reasonable portion of the benefits of productivity growth to ratepayers."¹³⁶ The CPD is intended to artificially create competitive market conditions, by forcing productivity gains, within the scope of the FCC's proceeding. This issue is not germane to the Commission's purpose in this proceeding. As such, the CPD is not adopted.

131 *Id.* at 15.

132 *In the Matter of Price Cap Performance Review for Local Exchange Carriers*, CC Docket No. 94-1, Fourth Report and Order (Released May 21, 1997) (X-Factor Order) ¶ 137.

133 *Id.* ¶¶ 14 and 19.

134 *Id.* ¶¶ 19 and 141.

135 *Id.* ¶ 134.

136 *Id.* ¶ 123.

142. Second, the Commission notes that Qwest recently announced reductions of 7000 employees, representing a force reduction in the range of 10 percent to 12 percent. The Commission is not convinced that adopting the X-Factor determined by the FCC, without adjustment, adequately accounts for the level of productivity improvement that may result from such a significant force reduction. An adjustment is required to ensure all Qwest cost models reflect the costs of an efficient telecommunications company. The Commission believes the productivity factor determined here accounts for normal fluctuations in Qwest's workforce, but does not account for such a significant reduction in the workforce.

143. The Commission believes the announced labor force reduction is above and beyond that attributable to normal productivity. As such, the Commission believes it necessary to increase the productivity factor by an adjustment to account for significant labor force reductions. Therefore, the Commission finds the X-factor should include a labor force reduction component equal to 2.00 percentage points.

144. Thus, the Commission adopts an annual X-Factor, or Efficiency Factor, that includes a component of 6.0 percent, to account for gains in normal productivity, and a component of 2.00 percent, to account for the significant labor force reductions, resulting in an annual X-Factor of 8.00 percent. This implies a two-year factor of 16.64 percent. The Commission finds it appropriate to require Qwest to include this X-Factor in all phases and models included in this proceeding.

145. Further, just as the FCC found no basis for making an adjustment to the X-Factor to account for any differences between interstate and total company productivity¹³⁷, this Commission will make no adjustment to the efficiency factor adopted here for any differences between intrastate and total company productivity, real or otherwise.

b. Inflation

146. Qwest stated the default Inflation Factor is based on a wage and salary index developed exclusively for Qwest. Qwest further argued a wage and salary index is appropriate to use as a surrogate Inflation Factor as a majority of Qwest's expense accounts consist of primarily salary related costs.¹³⁸

137 *Id.* ¶ 110.

138 08/29/01 Gude Testimony at 15.

147. The Commission is not persuaded that the most appropriate value for the Inflation Factor is one derived solely from a Qwest region-wide wage and salary index. The Commission finds a more appropriate Inflation Factor is one including a change due to a wage index component and a material input price index component. The Commission finds the Inflation Factor to be included in the calculation of forward-looking UNE rates in Nebraska should be based on the following methodology.

148. As a starting place, the Employment Cost Index (ECI), developed by the U.S. Department of Labor, Bureau of Labor Statistics, was used to determine a wage index component. The ECI is a quarterly measure of changes in labor costs. The index is based on total compensation, including wages, salaries, and benefit costs, for private industry, for all workers, and adjusted for seasonal variations.¹³⁹

149. An ECI of 87.5 in December 1985 and 126.9 in December 1995 results in an annual change of 3.79 percent. This value is comparable with the Wage and Salary index value of 4.3 percent submitted by Qwest. As the value submitted by Qwest falls within a reasonable range of the value calculated using the ECI and is based on Qwest-specific data, this Commission finds the value submitted by Qwest is more appropriately used as the wage index component of the Inflation Factor.

150. The Producer Price Index (PPI) for communication equipment is used as a material input price index component. The PPI measures the average change over time in the selling prices received by domestic producers for their output, including those purchased by other producers as inputs to their operations or as capital investment.¹⁴⁰

151. The PPI for communication equipment was reinitialized in December 1985. The index starting date is consistent with that used by the FCC in the derivation of the X-Factor.

152. A PPI of 100.0, in December 1985, and 113.6, in December 1995, results in an annual change of 1.28 percent in the PPI. This Commission finds this value appropriate to be used as the material input price index component of the Inflation Factor.

139 See <http://www.bls.gov/ncs/ect/home.htm>.

140 See <http://www.bls.gov/ppi/home.htm#overview>.

153. We find nothing in the record that convincingly persuades us as to the relative mix of wages and material in total costs. Therefore, the Inflation Factor is calculated as a simple average of the wage index and material input price index components.

154. Thus, the Commission adopts an annual Inflation Factor of 2.79 percent for this proceeding. This implies a two-year factor of 5.66. The Commission finds it appropriate to require Qwest to include this Inflation Factor in all phases and models included in this proceeding.

G. Factor Age

1. Background

155. The ICM investment- and expense-related costs are determined using annual cost factors, based on some measure of currently incurred costs, applied to forward looking investment amounts. Currently incurred costs are, in this case, defined as the 1999 book dollar amounts.¹⁴¹

2. Position of the Parties

156. Qwest asserted that the 1999 booked dollar amounts, which Qwest previously submitted, are most appropriate as they are the most recent data available. However, Qwest is not averse to developing an average year methodology on which to base factor development.¹⁴²

157. Staff questioned the use of 1999 booked dollar amounts, as opposed to the use of 2000 booked dollar amounts, or an average of several years as a smoothing technique.¹⁴³

3. Discussion

158. Staff examined factors based on 1998, 1999, and preliminary 2000 booked amounts. In addition, factors based on averaged 1998, 1999, and preliminary 2000 factors were reviewed.

141 09/19/01 Tr. at 25.

142 *In the Matter of the Commission, on its own motion, to investigate cost studies to establish Qwest Corporation's rates for interconnection, unbundled network elements, transport and termination and resale services*, Application No. C-2516/PI-49, Transcript, (October 16, 2001), (10/16/01 Tr.) at 55-56.

143 *Id.* at 55-56.

Staff found that factors, based on an average method, fall within a reasonable range of the factors based on 1999 amounts alone, currently employed in the ICM.

159. In reaching the Commission's goal of setting UNE rates that are fair, accurate, forward looking, and TELRIC-based, the Commission finds the use of preliminary data inappropriate. Factors based on preliminary data eventually require adjustment to actual data, and therefore a moving target for competitors. Given that, the Commission finds the factors based on Qwest's 1999 data are proper and appropriate.

H. Corporate Overhead Factor, Network Operations Expense, and Support Assets

1. Background

160. Network operations cost includes investment and expense related to plant operations and administration, engineering, testing, network administration, and power. General support cost includes investment and expense related to furniture, office equipment, general-purpose computers, motor vehicles, garage work equipment, and other work equipment. Both factors are calculated in the EFM. Corporate overhead includes the expense related to corporate overhead and is derived based on a ratio of corporate overhead expense, to all other expenses.

2. Position of the Parties

a. Corporate Overhead Factor

161. AT&T argued Qwest included an overhead factor significantly higher than those experienced by other Regional Bell Operating Companies (RBOCs) throughout the country. AT&T specifically cited those overhead factors of Bell South, Southwestern Bell Telephone, and Verizon for the years 1996 - 2000.¹⁴⁴ In addition, AT&T claimed the corporate overhead factor included in the ICM is "...about 1 percent higher than what Qwest's actual 2000 value was...."¹⁴⁵

162. Qwest argued AT&T used a flawed method in calculating the corporate overhead factor of 10.4, included in the HAI model. Further, Qwest provided testimony that the corporate

144 Denney Rebuttal 08/01/01 at 10.

145 08/09/01 Tr. at 239.

overhead factor included in the HAI model was based on 1994 data derived from AT&T operations and therefore not Qwest specific.¹⁴⁶

b. Network Operations Expense

163. Qwest argued the 50 percent reduction to network operating expenses, made by AT&T's HAI, would hamper Qwest's ability to continue to maintain its telecommunications network. Qwest further argued network operations expense benefits the network itself, not one class of customer and, therefore, no adjustment to network operations expense should be made to remove costs related to "retail customers."¹⁴⁷

c. Support Assets

164. Qwest argued the 55 percent reduction to support assets, made by AT&T's HAI, is an unreasonable adjustment and is not supported by AT&T with any additional information.¹⁴⁸

3. Discussion

165. Through written and oral testimony contained in the record of this proceeding, Qwest has provided ample documentation to convince the Commission that its corporate overhead factor, network operations expense, and support assets inputs are reasonable. Further, no other party has provided enough evidence to rebut this conclusion. Therefore, the Commission finds Qwest's default values for Corporate Overhead Factor, Network Operations Expense, and Support Assets are based on representative data and are thus proper and appropriate.

VI. ITP

166. An interconnection tie pair (ITP) is a connection between a UNE, provided by the ILEC, and the demarcation point, designating the point at which an ILEC's facilities end and a CLEC's facilities begin.

146 *In the Matter of the Commission, on its own motion, to investigate Qwest Corporation's rates for interconnection unbundled network elements, transport and termination and resale services*, Application No. C-2516/PI-49, Rebuttal Testimony of Garrett Y. Fleming (filed August 1, 2001), (08/01/01 Fleming Rebuttal) at 35.

147 08/08/01 Tr. at 26-27.

148 *Id.*

A. Positions of the Parties.

167. Qwest proposed a recurring rate for ITPs of \$0.46 per month.¹⁴⁹

168. Alltel conceded the ITP recurring rate, of \$0.46, proposed by Qwest is significant progress in the reduction of the ITP rate.¹⁵⁰ However, Alltel claimed Qwest has not achieved a true cost-based rate for the following reasons:

- Investment cost data are high,
- Fill factors are inappropriate,
- The calculation includes inappropriate expenses, like Product Management and Sales,
- The calculation includes double recovery of Land and Building costs,
- Annual carrying factors are too high,
- Expenses are incorrectly allocated to directly attributable as opposed to common costs,
- The business fee is excessive,
- Capital lease, leasehold improvement and uncollectable factors should be excluded, and
- An efficiency factor should be included to account for reductions in expense due to increased productivity over time.¹⁵¹

169. Alltel proposed an ITP rate of \$0.18.¹⁵² Alltel further argued the ITP element is subject to true-up as a result of the rate ordered by the Commission in this docket.¹⁵³

170. In general, Qwest argued Alltel's claims should be disregarded, due to the lack of supportive data.¹⁵⁴

149 *In the Matter of the Commission, on its own motion, to investigate cost studies to establish Qwest Corporation's rates for interconnection, unbundled network elements, transport and termination and resale services* Application No. C-2516/PI-49 Rebuttal Testimony of Garrett Y. Fleming (filed September 6, 2001) (09/06/01 Fleming Rebuttal) at GYF-1.

150 08/29/01 Hedrick Direct at 2.

151 *Id.* at 2-3.

152 *Id.* at 3.

153 09/19/01 Tr. at 55.

154 09/06/01 Gude Rebuttal at 2 - 3.

B. Qwest/Alltel Stipulated Rates

171. On December 4, 2001, Qwest and Alltel filed a Stipulation and Order Regarding Certain UNE Rates with the Commission. Within the stipulation, the parties agreed to a recurring ITP rate of \$0.44 per month. Further, the parties agreed the stipulated ITP rate would not be subject to true up.¹⁵⁵

C. Discussion

172. The Commission finds the following issues: Product management and sales expense, annual carrying factors, business fee factor, and efficiency factor, presented by Alltel, have been addressed by this Commission previously in this order. The Commission, therefore, references the decisions made above in Part V, Sections A through C, and Part V, Section F, respectively.

173. Alltel conceded during testimony that, when employing the method currently used by Qwest, double recovery of land and building costs, as previously alleged by Alltel, does not occur. Therefore, the Commission finds this issue moot.

174. The Commission is not persuaded by Alltel's arguments related to the alleged incorrect allocation of expenses to directly attributable and the alleged incorrect inclusion of capital lease, leasehold improvement, and uncollectable factors.

175. The Commission finds the recurring ITP rate, of \$0.44, contained in the Qwest/Alltel Stipulation is within a reasonable range of rates based on TELRIC principles, submitted in this proceeding. Additionally, the rate falls well within a range of the various RBOC rates from across the country, submitted by ALLTEL in this proceeding.¹⁵⁶ The Commission finds the ITP recurring rate contained in the Alltel/Qwest Stipulation should be approved and made available to all CLECs requesting ITPs.

VII. NONRECURRING

176. Nonrecurring costs recover the one-time labor expenses resulting from a customer request for service.

155 Qwest/Alltel Stipulation.

156 *In the Matter of the Commission, on its own motion, to investigate cost studies to establish Qwest Corporation's rates for interconnection, unbundled network elements, transport and termination and resale services* Application No. C-2516/PI-49 Direct Testimony of Brad Hedrick (filed July 20, 2001) at Exhibit C and Exhibit D.

A. Position of the Parties

177. Qwest proposed the ENRC for calculation of nonrecurring rates. For each work activity, the model utilizes; Average Work Times, Probabilities of Occurrence, Labor Rates, and Expense Factors to calculate the nonrecurring rate elements.¹⁵⁷

178. Specifically, Qwest stated, based on an itemization of every function performed, for each particular work activity¹⁵⁸, the ENRC's calculation process includes; multiplying the estimated work time by the probability that each work activity will occur, and by the respective labor rate, to derive the expected direct nonrecurring cost for each particular work activity. The ENRC then aggregates the direct nonrecurring costs of each work activity, according to their related interconnection service or UNE, and applies annual cost factors to derive the TELRIC rate for the interconnection service or UNE.¹⁵⁹

179. Qwest claimed that the ENRC uses best practice, least cost assumptions and is designed to reflect all planned improvements due to additional mechanization of the service order process. Qwest stated the ENRC produces accurate and reasonable nonrecurring rates because it uses real-world inputs¹⁶⁰ and realistic assumptions adjusted for known and planned process improvements.

180. Qwest testified that additional mechanization of the service order process, as negotiated in the 271-service quality process, is reflected in the ENRC. However, at this point in time, Qwest is not achieving these in all areas.¹⁶¹

181. Qwest contended the labor costs are based on actual contracted labor rates¹⁶² and that subject matter experts, who actually perform the particular tasks at issue, develop its

157 The TELRIC Nonrecurring Cost Model (ENRC) User Manual, (September, 1996) at 2.

158 10/16/01 Tr. at 9.

159 The TELRIC Nonrecurring Cost Model (ENRC) User Manual, (September, 1996) at 2.

160 10/16/01 Tr. at 6.

161 *Id.* at 10.

162 *Id.* at 21-22.

installation time estimates.¹⁶³ Further, Qwest testified that labor rates are tied directly to union contracts negotiated with Qwest.¹⁶⁴

182. Finally, Qwest argued that seeking recovery of its disconnect fees upfront is appropriate given the current economy and the tenuous financial situations of many CLECs. Qwest argued that if it does not collect its disconnect fees up front, it will face a substantial risk as it may never recover these fees because once a service is disconnected, there is little incentive to pay the disconnect fees. In addition, Qwest attested to a difficulty in billing the disconnect rate separate from a connection rate, due to its current billing system.¹⁶⁵

183. Qwest proposed a basic installation nonrecurring rate of \$92.41 for the first two-wire analog Loop UNE and \$77.01 for each additional two-wire analog Loop UNE. Qwest developed these rates through its ENRC model, which it argues complies with TELRIC principles.¹⁶⁶

184. No other party proposed a different nonrecurring cost model in the proceeding.

185. Alltel argued that Qwest-proposed nonrecurring rates, and specifically the nonrecurring rate for basic installation of two-wire analog Loop UNE, are "...unreasonably high and not appropriately cost based."¹⁶⁷ Alltel contended labor rates and installation time estimates are high in comparison to Alltel's labor and installation rates. In addition, Alltel claimed that rates incorrectly include certain directly assigned, directly attributed, and common costs that should not be allocated to nonrecurring rates. Alltel also asserted that disconnect time is incorrectly included in labor hours.

186. Alltel made adjustments to inputs in Qwest's ENRC model related to the issues above and recalculated nonrecurring

163 *In the Matter of the Commission, on its own motion, to investigate cost studies to establish Qwest Corporation's rates for interconnection, unbundled network elements, transport and termination and resale services* Application No. C-2516/PI-49 Direct Testimony of Garrett Y. Fleming (filed September 14, 2001) (09/14/01 Fleming Direct) at 12.

164 10/16/01 Tr. at 21.

165 *Id.* at 22-23.

166 09/14/01 Fleming Direct at 10-12; Exhibit GYF-1.

167 10/16/01 Tr. at 68.

costs.¹⁶⁸ Based on these adjustments, Alltel proposed a non-recurring rate of \$32.54 for the first two-wire analog Loop UNE and \$27.12 for each additional two-wire analog Loop UNE.¹⁶⁹

187. Additionally, Alltel provided a comparison of Qwest's proposed rates for 2-wire analog Loop UNE nonrecurring rates for basic installation to the rates Alltel pays to ILECs in other states. The basis for the displayed rates include negotiated interconnection agreements, a 271-docket process, Qwest SGAT, and interconnection agreements via the § 252(i) process.¹⁷⁰

B. Qwest/Alltel Stipulated Rates

188. On December 4, 2001, Qwest and Alltel filed a stipulation and Order Regarding Certain UNE Rates with the Commission.¹⁷¹ Within the Stipulation, the parties agreed to nonrecurring rates for basic installation of the first two-wire analog UNE loop and each additional two-wire analog UNE loop, at the same location, of \$65 and \$60, respectively.¹⁷²

189. Qwest and Alltel stated the stipulated rates for basic installation comply with TELRIC pricing principles because they fall in the range of alleged TELRIC rates submitted by Qwest, Alltel, AT&T and Cox.¹⁷³

C. Discussion

190. The Commission finds, based on the record in the proceeding, the ENRC model should be used to calculate Qwest nonrecurring rates. The ENRC is based on economic costing principles and TELRIC concepts. Furthermore, the ENRC is the only model submitted, in this proceeding, for the calculation of nonrecurring costs.

168 *In the Matter of the Commission, on its own motion, to investigate cost studies to establish Qwest Corporation's rates for interconnection, unbundled network elements, transport and termination and resale services* Application No. C-2516/PI-49 Rebuttal Testimony of Brad Hedrick (filed October 12, 2001) (10/12/01 Hedrick Rebuttal) at 3.

169 10/16/01 Tr. at at 70.

170 *Id.* at Exhibit A.

171 Qwest/Alltel Stipulation.

172 *Id.*

173 *Id.*

191. The Commission finds as inappropriate the Alltel/Qwest comparison of labor rates and nonrecurring time estimates. Alltel provided no basis that demonstrates why these costs should be similar. Therefore, the Commission finds the default labor rate and installation time estimates, included in the ENRC, are appropriate.

192. Alltel also claimed Qwest includes certain costs which should not be allocated to nonrecurring costs, and cites FCC Order 96-325, as follows:

Second, if we apply our general rule that costs should be recovered in a manner that reflects the way they are incurred, then recurring costs must be recovered through recurring charges, rather than through a non-recurring charge. A recurring cost is one incurred periodically over time. A LEC may not recover recurring costs such as income taxes, maintenance expenses, and administrative expenses through a non-recurring charge because these are costs that are incurred in connection with the asset over time.¹⁷⁴

193. The Commission is not persuaded by Alltel's arguments on this issue. Based on evidence contained in the docket, the Commission believes there are non-recurring attributable and common costs necessary to provide nonrecurring services. As such, the Commission finds the directly assigned, directly attributable, and common costs included in Qwest's nonrecurring rates are appropriate, subject to Commission's findings herein.

194. Lastly, Alltel argued disconnect time is incorrectly included in labor hours as disconnection costs may not actually occur, or may be incurred later than predicted, or may be incurred at a level that is lower than predicted, citing FCC Order 96-325, ¶ 747.

195. Qwest testified to a difficulty in billing the disconnection charge separately.¹⁷⁵ Further, Qwest suggested there is no guarantee that a CLEC in question will actually pay the disconnection charge once the customer has left Qwest's network. Qwest pointed to the large number of bankruptcies to

174 *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket No. 96-98, *Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, CC Docket No 95-185, First Report and Order, FCC 96-325, (August 8, 1996) ¶ 745.

175 10/16/01 Tr. at 22.

support its concerns about its ability to collect disconnection fees.¹⁷⁶

196. While the Commission does not agree that Alltel's citation to FCC Order 96-325 directly relates to the inclusion of disconnection costs in Qwest's proposed nonrecurring rates, the Commission does agree with Alltel that it is not reasonable for Qwest to recover the cost of disconnecting a customer at the time the service is originally installed. However, the Commission recognizes the plausibility of Qwest's arguments. As such, should nonrecurring disconnection costs be recovered upon initial installation, a CLEC should gain some benefit from remitting these funds prior to the point at which the cost is incurred by Qwest, if it is indeed incurred at all. Therefore, the Commission finds all nonrecurring costs should be determined with the following methodology.

197. There is no record in the proceeding that provides an average length of time a customer receives service from a CLEC, nor information related to an associated probability the customer will return to the ILEC during that period of time. The Commission adopts the following methodology in an effort to ensure CLECs are not penalized for paying disconnect charges in advance. The Commission encourages Qwest, once capable, to come before the Commission with a proposal to assess disconnection costs at time of disconnection.

198. The Commission finds all nonrecurring rates may include connection costs and disconnection costs only if adjusted for the time value of money and the probability a customer will return to the ILEC. The Commission proposes a 60 percent probability the customer will return to the ILEC over a five-year period. Thus, the cost for the disconnect will be reduced by 40 percent. The remaining 60 percent of the disconnection charge will be discounted over a five-year period at 11.25 percent, the Commission ordered rate of return in this proceeding, prior to allocating directly assigned, directly attributed, and common costs.

199. The Commission performed an analysis, using the adopted methodology, on the nonrecurring Loop UNE rates for initial basic loop installation and each additional basic loop installation filed by Qwest. The rates resulting from the analysis fall within a 95 percent confidence interval of the rates filed in the Qwest/Alltel Stipulation. Additionally, the rates fall well within a range of the various RBOC rates from

¹⁷⁶ *Id.* at 23.

across the country, submitted by ALLTEL in this proceeding.¹⁷⁷ As such, the Commission finds the nonrecurring rates, for basic installation of the first two-wire analog Loop UNE and each additional two-wire analog Loop UNE, at the same location, contained within the Qwest/Alltel Stipulation, should be approved and made available to all CLECs requesting Loop UNE installation.

VIII. COLLOCATION

A. Position of the Parties

200. To calculate proposed Nebraska collocation rates, Qwest stated it first examined 41 cageless collocation jobs, completed prior to May 1999,¹⁷⁸ from Qwest's 14-state region,¹⁷⁹ and analyzed all the related material, labor and engineering receipts. Second, Qwest classified every cost associated with the 41 cageless collocation jobs according to the various components of collocation (cable racking, power cable, support structure, etc.). Third, Qwest calculated the placement cost of every collocation component by multiplying the appropriate labor costs by the number of components installed. Fourth, Qwest added the placement costs to the cost of the materials and components. Fifth, Qwest aggregated the direct cost of each component according to the related service or UNE. Finally, Qwest examined the collocation rate elements and determined whether the element is recoverable through non-recurring rates or recurring rates. Non-recurring and shared costs were prorated based on the anticipated number of CLECs that would use the facilities.¹⁸⁰ Finally, Qwest restated its results in a normal cost calculation in the collocation model to develop the direct costs associated with each service or UNE.¹⁸¹

201. To determine proposed caged collocation rates, Qwest then made adjustments to distances and other inputs and included costs, such as cage and grounding costs, that Qwest claimed more appropriately reflect a standard caged collocation environ-

177 10/12/01 Hedrick Rebuttal at Exhibit A.

178 09/14/01 Fleming Direct 24-25.

179 10/16/01 Tr. at 7.

180 *Id.*; 09/14/01 Fleming Direct at 28.

181 09/14/01 Fleming Direct at 22-23.

ment.¹⁸² Qwest argued that this method produces accurate estimates for collocation rates.

202. Qwest further testified that the use of outside vendor labor has been decreasing in recent months. In recognition of this cost change Qwest proposed adjusting the model inputs to reduce the proportion of vendor labor to 31 percent. The model filed by Qwest includes that adjustment.¹⁸³

203. Alltel argued Qwest's proposed collocation rates are excessive. Alltel submitted, as evidence to its assertion, a comparison of Qwest collocation rates to collocation rates adopted by other RBOCs in other states.¹⁸⁴

204. Further, Alltel asserted Qwest's proposed collocation rates are high and inappropriate due to an incorrect inclusion of directly assigned, directly attributed, and common costs in nonrecurring collocation costs.¹⁸⁵

205. The Mobius Communications Company (Mobius) argued Qwest's collocation construction costs do not appear to be cost-based. Mobius bases this claim on a simplistic comparison of caged versus cageless applications.¹⁸⁶

206. Qwest responded that Alltel's comparison with other RBOCs is misguided because Alltel does not compare similar collocations. Qwest noted that other RBOCs may place different requirements on CLECs, which drastically affect the collocation rates. For example, Ameritech Ohio requires CLECs to purchase most of the collocation equipment before Ameritech Ohio installs it in the collocation site.¹⁸⁷ Alltel conceded this is a valid point.¹⁸⁸

182 *Id.* at 24.

183 10/16/01 Tr. at 9.

184 10/12/01 Hedrick Rebuttal.

185 *Id.*

186 *In the Matter of the Commission, on its own motion, to investigate cost studies to establish Qwest Corporation's rates for interconnection, unbundled network elements, transport and termination and resale services* Application No. C-2516/PI-49 Direct Testimony of Robert J. Tupper (filed September 21, 2001) at 3.

187 10/16/01 Tr. at 18-20.

188 *Id.* at 77.

207. Qwest also argued it only includes directly assigned, directly attributed and common costs that are properly recovered through non-recurring rates, such as planning costs¹⁸⁹ and product management expenses¹⁹⁰.

208. During cross-examination, Staff conducted an extensive line of questioning related to the caged collocation rates and the costs recovered by said rates. Based on responses received from Qwest, Staff determined the following:

- A rate of nearly \$4,000, based on 13 bids received from contractors, is assessed for the caging material, and associated costs of installation, to construct a 1,000-cubic foot caged.¹⁹¹
- A rate exceeding \$700 is anticipated to extend current heating and cooling (HVAC) for a 100 square foot collocation job.¹⁹²
- A rate of nearly \$10,000, based on the study of 41 cageless collocation jobs, is assessed for 60-amp DC power, consisting of the cost for four cables, installation, required connections, fuses, and other incidental costs.¹⁹³
- A rate exceeding \$4,000 is assessed "...just to run electrical for the lights and - light switch and maybe some sockets and stuff"¹⁹⁴
- A rate of nearly \$6,000 for cable racking, consists of cable rack, at \$7 per foot, horns, placed every three or four feet, at \$13.93 per horn, pans, at \$1 per foot, fittings, aerial support for cable racking, plus an installation charge of \$24 per channel.¹⁹⁵

189 *Id.* at 11.

190 *Id.* at 90.

191 *Id.* at 34.

192 *Id.* at 34-35.

193 *Id.* at 35-36.

194 *Id.* at 36-37.

195 *Id.* at 44-46.

- A charge of nearly \$400 is assessed for additional aerial support, not otherwise included in cable racking.¹⁹⁶
- A rate exceeding \$10,000 is assessed for engineering, including the costs incurred to do the initial planning.¹⁹⁷

B. Discussion

209. Alltel claimed Qwest includes certain costs, which are not allowed to be allocated to nonrecurring costs, citing FCC Order 96-325.

210. The Commission is not persuaded by Alltel's arguments as they are not supported by evidence in the record. The Commission believes there are attributable and common costs, such as planning and product management, incurred at the time the nonrecurring service is provided. As such, the Commission finds the directly assigned, directly attributable, and common costs included in Qwest's nonrecurring collocation rates are appropriate, subject to Commission's findings herein.

211. Nonetheless, the Commission is skeptical of the collocation cost study submitted by Qwest and believes Qwest's collocation model is no longer valid.

212. Qwest's proposed collocation rates are not Nebraska specific. Qwest's proposed collocation rates are based on 41 cageless collocation jobs, completed prior to May 1999, none of which are purported to have occurred in Nebraska.¹⁹⁸

213. Qwest claimed the average cost of the collocation jobs reviewed is about \$80,000.¹⁹⁹ Alltel provided data indicating that when current Qwest nonrecurring collocation rates are applied, 9 of its 14 Nebraska collocation sites would incur nonrecurring collocation costs above \$80,000, for an average collocation job cost of approximately \$97,000. Further, Alltel's data indicates that when Qwest proposed nonrecurring collocation rates are applied, 11 of its 14 Nebraska collocation sites would incur nonrecurring collocation costs above, or near,

196 *Id.* at 45.

197 *Id.* at 42.

198 *Id.* at 8.

199 *Id.* at 12.

\$80,000, for an average collocation job cost of approximately \$101,000.²⁰⁰ These averages are well above Qwest's estimate of \$80,000.

214. Actual completed collocation jobs exist in Nebraska. As evidenced by the testimony submitted by Alltel, actual, Nebraska-specific, caged collocation data exists from which to develop collocation rates.

215. Qwest's job sample of 41 cageless collocations is not statistically random. In total, 96 jobs were originally identified, 77 of the 96 were determined to be new collocation jobs, and of those, the 41 with at least 90 percent of the total billing were included.²⁰¹

216. Qwest's sample implicitly includes a cost of learning by doing. Qwest's proposed collocation rates inherently include a learning curve cost not incurred by a mature business. For this reason alone, the collocation rates are too high.

217. The Commission shares the Staff's concern that costs are too high for many components of caged collocation. The Commission is also concerned that costs, such as engineering, essentially may be incurred once, but charged to each job, allowing them to be recovered multiple times. The Commission believes there are valid concerns presented by parties and Staff regarding the basis and validity of Qwest's collocation study. Unfortunately, the record does not support a sufficient alternative on which to base collocation costs in this proceeding. Thus, the Commission currently has no alternative but to find the Qwest collocation model, and rates supported by said model, subject to all Commission findings in this proceeding, should be used as a starting point for determining the appropriate TELRIC compliant collocation rates.

218. The Commission shall be amenable to a reexamination of Qwest's collocation rates as the Commission believes Qwest's collocation rates require further study to determine more accurate TELRIC compliant rates. As parties become interested in purchasing collocation, and better data and estimating methodologies become available, the Commission will consider opening a new docket to address caged collocation rates.

200 10/12/01 Hedrick Rebuttal at Exhibit A.

201 09/14/01 Fleming Direct at 24.

IX. LINE SHARING

A. Background

219. In the FCC's Third Report and Order in CC Docket No. 98-147 and Fourth Report and Order in CC Docket No. 98-98 (Line-Sharing Order), the FCC determined the high frequency portion of the loop meets the statutory definition of a network element and must, therefore, be unbundled pursuant to sections 251(d)(2) and (c)(3).²⁰²

B. Position of the Parties

1. Local Loop

220. Qwest argued that its proposed rates are appropriate because they provide reasonable and just compensation to Qwest for surrendering a valuable portion of the Loop UNE. Qwest also noted that the FCC has not established firm standards for calculating line sharing rates but has stated that state commissions may require that ILECs charge no more to CLECs for access to shared local loops than the amount of loop costs the ILEC allocated to ADSL services when it established its interstate retail rate for those services.

221. Qwest claimed its interstate DSL offering is at a level that exceeds the service's direct costs, plus an imputation of the proposed line sharing UNE rate, thus meeting the FCC's guideline for pricing the loop portion of line sharing.²⁰³

222. Staff questioned the TELRIC cost basis of Qwest's proposed line sharing rate for the loop portion.²⁰⁴

202 *In the Matters of Deployment of Wireline Services Offering Advanced Telecommunications Capability and Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket Nos. 98-147 and 98-98, Third Report and Order in CC Docket No. 98-147 and Fourth Report and Order in CC Docket No. 98-98 ¶ 16 (Rel. December 9, 1999) (Line Sharing Order).

203 *In the Matter of the Commission, on its own motion, to investigate cost studies to establish Qwest Corporation's rates for interconnection, unbundled network elements, transport and termination and resale services* Application No. C-2516/PI-49 Rebuttal Testimony of Garrett Fleming (filed October 12, 2001) (10/12/01 Fleming Rebuttal) at 14.

204 10/16/01 Tr. at 48.

223. Mobius argued that Qwest's incremental costs in providing line sharing are zero and, therefore, Qwest's proposed rate is too high.

2. OSS

224. Qwest argued modifications to Operational Support Systems (OSS) for preordering, ordering, provisioning, repair and maintenance, and billing are required to implement the line-sharing requirement. Thus, Qwest seeks to recover the OSS costs related to implementing line sharing, including: the costs for modifications to internal systems and the direct expense incurred to pay outside vendors to modify legacy systems impacted by the requirement to provide line sharing.²⁰⁵

225. Qwest provided testimony related to the calculation method used in determining the OSS line-sharing rate. Specifically, the rate is defined as the cost incurred to modify OSS to accommodate the unbundling of the high frequency portion of the loop, divided by anticipated demand for line sharing over a five-year period.²⁰⁶

226. Qwest's witness stated 15 percent of the costs of the OSS systems was determined to provide direct benefit to the operations of Qwest and was therefore removed from the calculation.²⁰⁷

227. Further, Qwest calculated the rate as a recurring charge, over a five-year period. As justification, Qwest believed the OSS modification costs incurred, recovered as a nonrecurring charge, would result in a barrier to entry.²⁰⁸

228. Mobius argued, in a line sharing arrangement, there is no interaction between Qwest's OSS and a CLEC's line sharing equipment. As such, Mobius claimed Qwest line sharing OSS rate is not cost justified.

C. Discussion

229. The FCC defines its task as one of extending, "...the TELRIC methodology..." to line sharing and thus adopting a

205 10/12/01 Fleming Rebuttal at 14-15.

206 10/16/01 Tr. at 49.

207 *Id.* at 50.

208 *Id.* at 51.

"...reasonable method for dividing the shared loop costs."²⁰⁹ The FCC concludes that states "...may require that incumbent LECs charge no more to competitive LECs for access to shared local loops than the amount of loop costs the incumbent LEC allocated to ADSL services when it established its interstate retail rates for those services."²¹⁰

230. In lieu of developing a definitive methodology in which to divide shared loop costs and develop line-sharing rates, the FCC encourages states to use a surrogate, benchmark type methodology, in which to price line-sharing elements. As a result, in states where line-sharing rates have been developed, methods used and resulting rates, have not been consistent. The Commission has reviewed rates approved in other states, ranging from zero in Minnesota²¹¹ to \$5.00 in Montana.²¹²

231. The issue of TELRIC, cost based, rates for line-sharing is complicated and invokes principles based on intricate economic foundation. Thus, the Commission finds that a more comprehensive study of the issue is necessary, as a definitive methodology in which to base the development of line-sharing rates has not been established.

232. The Commission is not completely persuaded that the Qwest proposed line-sharing rates in this proceeding are TELRIC based. Thus, for the time being, the Commission hereby sets a rate of \$1.56, which should include the local loop charge for the high frequency portion and the OSS charge. The proposed rate is proper and appropriate and complies with TELRIC pricing principles as it falls within a range of those observed in other states. Sometime in the near future, after review of the economics related to line-sharing, the actions of other states, and other related material, the Commission will provide further guidance on rates for line-sharing.

209 Line Sharing Order ¶ 138.

210 *Id.* ¶ 139.

211 *Before the Minnesota Public Utilities Commission In the Matter of a Commission Initiated Investigation into U S WEST Communication, Inc.'s Costs Related to the Provision of Line Sharing Services*, DOCKET NO. P-5692, 5710, 5827, 5638, 5670, 466, 421/CI-99-1665, ORDER SETTING PRICES FOR UNBUNDLED NETWORK ELEMENTS (July 24, 2001).

212 *Department of Public Service Regulation Before the Public Service Commission of the State of Montana In the Matter of the Filing by Qwest Corporation, f/k/a U S West Communications, Inc. to Determine Wholesale Discounts, Prices for Unbundled Network Elements, Collocation, Line Sharing, and Related Matters*, Utility Division Docket No. D2000.6.89, Final Order on Stipulation, Order No. 6260b (October 12, 2001).

X. RESALE DISCOUNT

A. Background

233. An ILEC is required to provide any telecommunications service, offered on a retail basis to subscribers, to all requesting CLECs, for resale at wholesale rates, on terms and conditions that are reasonable and nondiscriminatory.²¹³

234. The wholesale rate at which the ILEC provides resale telecommunications services should equal the retail rate for the telecommunications service less the avoidable retail costs. Avoidable retail costs should be determined on the basis of a cost study.²¹⁴

B. Position of the Parties

235. Qwest filed a study showing the costs that would be avoided in providing resale for the following service categories: Basic Exchange Business - 8.55 percent; Toll - 6.67 percent; Listings, CO Features and Informational Services - 32.95 percent; Basic Exchange Residence - 3.77 percent; Private Line - 4.00 percent; and Packaged/Special Services (Composite) - 8.92 percent.²¹⁵

236. No additional cost studies, providing avoidable resale costs, were filed. In addition, no party opposed the study filed by Qwest.

237. Staff performed an analysis of Qwest's avoidable retail costs. Using a revenue-weighted average of Qwest proposed resale discounts as an avoidable cost proxy for all indirect avoidable expense accounts, Staff calculated an aggregate resale discount, consistent with 47 CFR § 51.609 and the Commission's decision in Part V, Section A, above. Based on the analysis, Staff found an aggregate resale discount of 16 percent is reasonable and appropriate.

213 47 CFR §§ 51.603 and 51.605.

214 47 CFR § 51.607.

215 *In the Matter of the Commission, on its own motion, to investigate cost studies to establish Qwest Corporation's rates for interconnection, unbundled network elements, transport and termination and resale services* Application No. C-2516/PI-49 Testimony of D.M. (Marti) Gude (filed September 14, 2001) (09/14/01 Gude Testimony) at 3.

C. Discussion

238. The Commission believes creating multiple resale discount rates may be inappropriate and lead to an environment in which competitive providers are unduly burdened by such a structure. As such, the Commission finds a single average discount rate will simplify pricing for competitors, billing by Qwest, and promote competition through resale.

239. The Commission finds that a single composite discount will be established for resale of Qwest's retail telecommunications services. Based on the cost study evidence before it in this proceeding, and the Staff's analysis as described above, the Commission hereby finds a resale discount of 16.0 percent is appropriate. This discount should be made available to all requesting CLECs, for any telecommunications service provided to a subscriber, that is not a telecommunications provider.

XI. REMAINING UNE RATE ELEMENTS

240. Additional UNE rate elements, not explicitly determined herein, were included for determination in this proceeding.²¹⁶ The Commission findings above determine, based on the information available in the record and the goals of this Commission in setting rates for various rate elements, the most appropriate TELRIC-based methods of calculation for Qwest UNE rates. As the Commission does not explicitly address every UNE rate element, rather the appropriate TELRIC-based methodology in which to determine every UNE rate element, the Commission finds all remaining UNE rates, not explicitly determined here, should be calculated using the respective TELRIC-based methodology determined by this Commission, should include all adjustments to inputs and methods as determined by this Commission, and should be made available to all requesting parties.

XII. ORDER

241. IT IS THEREFORE ORDERED by the Nebraska Public Service Commission that the resolutions of the issues contained herein be, and they are hereby, adopted.

216 *In the Matter of the Nebraska Public Service Commission, On its Own Motion, to Conduct an Investigation to investigate cost studies to establish Qwest Corporation's rates for interconnection, unbundled network elements, transport and termination and resale services, Application No. C-2516/PI-49, The Commission, on its own motion, to determine the appropriate price for expanded Interconnection Channel Termination (EICT), Application No. C-2498/PI-47, Progression Order No. 2 (August 3, 2001).*

242. IT IS FURTHER ORDERED that Qwest shall file within ten days of the date of this order, a schedule setting forth all rates and charges consistent with the findings herein. The schedule shall include detailed runs of Qwest's cost models with the ordered adjustments, and show all resulting rates. In addition, Qwest shall also file electronic copies of the most current of its cost models and cost studies, which contain the adjusted inputs as prescribed herein.

243. IT IS FURTHER ORDERED that all rates and charges consistent with the findings in this order shall be implemented effective on or before August 8, 2002.

244. IT IS FURTHER ORDERED that Qwest shall file by August 8, 2002, revisions to its SGAT.

MADE AND ENTERED at Lincoln this 23rd day of April, 2002.

NEBRASKA PUBLIC SERVICE COMMISSION

COMMISSIONERS CONCURRING:

Chair

ATTEST:

Executive Director

Appendix A
UNE Loop Rates

Zone 1

\$15.14

Zone 2

\$35.05

Zone 3

\$77.92

Appendix B

<u>Zone 1</u>		<u>Zone 2</u>		<u>Zone 3</u>	
Elkhorn	ELKHENW	Bennington	BGTNNECO	Alliance	ALNCNENW
Fremont	FRMTNENW	Chadron	CHDRNENW	Ainsworth	ANWONENW
Grand Island	GDISNENW	Central City	CNCYNENW	Atlanta	ATLNNENW
North Platte	NPLTNENW	Gretna	GRETNENW	Atkinson	ATSNNENW
Norfolk	NRFLNENW	Holdrege	HLDGNENW	Axtell	AXTLNENW
Omaha	OMAHNE78	Lexington	LXTNNENW	Big Springs	BGSPNENW
Omaha	OMAHNE84	McCook	MCCKNENW	Broken Bow	BRKBNENW
Omaha	OMAHNE90	Minden	MINDNENW	Bridgeport	BRPTNENW
Omaha	OMAHNEBE	Ogallala	OGLLNENW	Cairo	CAIRNENW
Omaha	OMAHNECE	Schuyler	SCHLNENW	Clarkson	CKSNNEUW
Omaha	OMAHNEFO	Sidney	SDNYNENW	Crawford	CRFRNENW
Omaha	OMAHNEFW	Springfield	SPFDNENW	Elwood	ELWDNENW
Omaha	OMAHNEHA	St. Paul	STPLNENW	Elm Creek	EMCKNENW
Omaha	OMAHNEIZ	Tekamah	TKMHNENW	Emerson	EMSNNENW
Omaha	OMAHNENW	Valley	VLLYNENW	Farwell	FRWLNENW
Omaha	OMAHNEOS	West Point	WSPNNENW	Fullerton	FUTNNENW
South Sioux City	SSCYNENW			Gothenburg	GTBGNENW
Wayne	WAYNNEUW			Humphrey	HMPHNENW
				Homer	HOMRNENW
				Harrison	HRSNNENW
				Howells	HWLSNENW
				Laurel	LARLNENW
				Loup City	LPCYNENW
				Lyons	LYNSNENW
				Oakland	OKLDNEUW
				O'Neill	ONELNENW
				Oxford	OXFRNENW
				Pilger	PLGRNENW
				Pender	PNDRNEUW
				Randolph	RNDHNENW
				Silver Creek	SLCKNENW
				St. Libory	STLBNENW
				Valentine	VLNTNENW
				Wood River	WDRVNENW
				Wakefield	WKFDNENW