

BEFORE THE NEBRASKA PUBLIC SERVICE COMMISSION

The Commission, on its own motion,) Application No. C-2256/PI-38
to investigate and seek comment)
on cost models for the following:) Application No. C-2172/PI-34
(1) unbundled network element(UNE))
pricing; (2) developing zones)
to de-average rates on a)
geographical basis; (3) deter-)
mining zones for universal ser-)
vice (USF) payments; (4))
establishing a permanent fund-)
ing mechanism for USF payments;) ORDER MERGING DOCKETS,
and (5) determining whether all) SEEKING COMMENT AND SETTING
subsidies have been removed from) HEARING
access prices.)
)
The Commission, on its own motion,)
to seek comment on the establish-)
ment and implementation of de-)
averaged rates for unbundled)
network elements pursuant to the)
Rules of the Federal Communications)
Commission section 51.507(f).) Entered: January 23, 2001

BY THE COMMISSION:

B A C K G R O U N D

Based upon a decision reached by the Supreme Court in AT&T v. Iowa Utilities Board, 119 S.Ct. 721 (1999), the Federal Communications Commission (FCC) ordered each state to geographically deaverage wholesale prices for local telephone service. See Federal-State Joint Board on Universal Service, CC Docket 96-45, Ninth Report and Order and Eighteenth Order on Reconsideration, FCC 99-306 (rel. Nov. 2, 1999). The Nebraska Public Service Commission (Commission) requested and subsequently received two waivers from the FCC's deaveraging requirement officially extending this Commission's deadline to February 28, 2001.

On December 7, 1999, the Commission opened an investigation in Docket No. C-2172/PI-34, to establish and implement deaveraged rates for unbundled network elements (UNEs) pursuant to the Rules of the Federal Communications Commission Section 51.507(f). The Commission requested and received comments from interested parties on how to comply with the directives of the FCC. Comments in this docket were filed by Sprint, AT&T, ALLTEL, NITA and US West, n/k/a Qwest. A petition of formal intervention was also filed by Rhythms Links, Inc., through its undersigned counsel. On December 20, 2000, the Commission held a work session to discuss the recommendations of the Commission staff. No Commission order has been entered in this docket subsequent to the filing of comments or the work session.

In the December 7, 1999, order, the Commission noted that, "the Commission is aware that comments received will directly effect its decision in Docket Nos. C-1415 and C-1416, commonly referred to as the cost study dockets."

On March 28, 2000, the Commission opened C-2256/PI-38 to inter alia, investigate and seek comment on cost models for UNE pricing, develop zones to de-average rates on a geographical basis and to determine zones for universal service (USF) payments. On June 6, 2000, this Commission released its first proposal of alternatives labeled *Initial Nebraska Public Service Commission Proposal with respect to Cost Models (Initial Proposal)*. On October 31, 2000, the Commission released *The Initial Recommendations of the Nebraska Public Service Commission with respect to Interim and Permanent Deaveraging (Initial Recommendations)*. Interested parties were given the opportunity to submit comments on the Commission's actions and a hearing in legislative format was held on December 5, 2000 at 11:00 a.m. in the Commission Hearing Room.

O P I N I O N S A N D F I N D I N G S

A. THE UNBUNDLED LOOP ELEMENT

In their comments, both Qwest and AT&T requested that the Commission limit the scope of geographic deaveraging to the unbundled loop. According to these parties, the unbundled loop element represents a significant portion of the total cost of the unbundled network elements necessary to provide service. Likewise, the unbundled loop costs vary between geographic areas based on loop distances and density in comparison to switching costs, for example, which vary more significantly by the switch vendor. (See Qwest Comments filed November 21, 2000, at 17, n. 22.) The Commission agrees with the parties that the element which most significantly varies by geographic location is the unbundled loop element.

As section 51.507(f) provides, state commissions are to establish deaveraged rates to reflect the geographic cost differences. The Commission believes that addressing the unbundled loop element alone is sufficient at this time to comply with the plain language and underlying intent of section 51.507(f). Therefore, for the present time, the Commission will concentrate only on deaveraging loop costs. Notwithstanding that, should it become in the public interest to do so, the Commission may wish to examine deaveraging the costs of other UNEs in a separate proceeding.

B. THE MERGING OF DOCKETS

The Commission initially commenced C-2256/PI-38 in the hopes of utilizing one cost model to take care of a number tasks at once. Therefore, the bulk of the issues in Docket No. C-2256 (issues 1 - 3) are the same as those issues the Commission began to address in our deaveraged UNE investigation Docket No. C-2172/PI-34. Some of these issues need be addressed at a different pace; therefore, the

Commission believes that the tasks outlined in Docket No. C-2256/PI-38 should be separated out. We find it appropriate, at this time, to merge issues 1 - 3 and the findings relative thereon into Docket No. C-2172/PI-34. The comments filed in both dockets will remain pertinent to our consideration in the merged docket. Inasmuch as our decision in this docket may resolve some of the issues in Qwest's cost Docket No. C-1415, specifically, determining UNE loop rates, this Commission will consider the testimony, briefs and exhibits and any other relevant evidence filed in that docket to aid us in this decision.

C. STAFF RECOMMENDATIONS

On January 9, 2001, we entered an order adopting the Commission staff's proposal to create deaveraged zones based on wire center costs. In that order, we also directed the staff to release for comment its recommendations on how to implement our decision to create deaveraged zones based on wire center costs. In compliance with this directive, the staff has submitted the attached recommendations for comment and Commission consideration.

Inasmuch as we expect to make a decision on deaveraged UNE loop pricing within the examination of this docket, the Commission further seeks comment on the Commission staff suggestion that any decision on loop pricing be dispositive of the same issue in Docket No. C-1415. To that extent, the Commission proposes closing Docket No. C-1415 solely as it relates to the examination and a determination of loop prices.

Interested parties will also be given an opportunity to comment on the attached staff recommendations. All comments on these matters must be received on or before February 2, 2001. For the ease of administration, only those parties filing comments herein will be permitted to participate at the hearing which shall be set for February 22, 2001 at 10:00 a.m. in the Commission Hearing Room, Lincoln, Nebraska.

O R D E R

IT IS THEREFORE ORDERED by the Nebraska Public Service Commission that the scope of geographic deaveraging be limited to the unbundled loop element as described herein.

IT IS FURTHER ORDERED that the issues labeled (1) through (3) in Commission Docket No. C-2256/PI-38 shall be merged into Docket No. C-2172/PI-34.

IT IS FURTHER ORDERED that the attached staff recommendations be, and they are hereby made a part of the record herein and subject to comment by all parties interested in this matter.

IT IS FURTHER ORDERED that all interested parties are invited to comment on the issues, concerns and recommendations they have on the staff recommendations including the proposal that a UNE loop decision in this docket be dispositive of docket C-1415 relative to loop costs. Comments shall be received on or before February 2, 2001, at 5:00 p.m. Parties commenting shall file five hard copies and one electronic copy on disk in WordPerfect 5.0 or later format. Filings will not be accepted via facsimile.

IT IS FURTHER ORDERED that participation at the February 22, 2001, hearing will be limited to those parties who file comments by the February 2, 2001, deadline.

IT IS FURTHER ORDERED that a hearing shall be held on the above-captioned matter on February 22, 2001 at 10:00 a.m., in the Commission Hearing Room, at Lincoln.

MADE AND ENTERED in Lincoln, Nebraska, this 23rd day of January, 2001.

NEBRASKA PUBLIC SERVICE COMMISSION

COMMISSIONERS CONCURRING:

Chairman

ATTEST:

Executive Director

Staff's Recommendations to Complete the Deaveraging Task Using Zones Based on Wire Center Costs

On January 9, 2000 the Nebraska Public Service Commission (Commission) ordered the use of the entire wire center approach to determine UNE price zones for telecommunications carriers in Nebraska. The Commission asked its staff to make recommendations regarding a process that could be used to implement this order. The staff believes the process for creating UNE zone prices has two distinct parts. The first part is selecting a general methodology for creating wire center-based UNE price zones. Implementing a methodology, however, requires cost models, input data sets, zone definitions and other factors. Hence, the second part of the deaveraging process requires selecting the factors that will be used to implement the methodology. The general methodology and the issues related to its implementation are described below.

GENERAL METHODOLOGY

The general methodology for pricing UNEs is relatively straightforward and is applied to one carrier at a time. However, the same methodology can and should be applied to all carriers.

Initially a cost model is used to calculate the average direct loop cost for each of a carrier's wire centers. Then statistical analysis is combined with market realities to place wire centers into zones. For a particular carrier there may be three or more UNE price zones. Each zone may contain as few as one wire center or as many as thirty or more wire centers. Zone one contains wire centers with the densest populations, or lowest loop costs. Zone two contains wire centers with less dense populations and higher loop costs, and so on.

The next step is to calculate the average direct loop cost in zone one. This average cost is calculated as the total cost of providing service to all lines in zone one divided by the total number of lines in that zone. The zone one average direct loop cost becomes the price for an unbundled loop in zone one.

The staff has a reasonable degree of confidence that the cost models it reviewed in the universal service docket do an adequate job of calculating average loop costs in wire centers with dense populations. However, the staff questions whether any of the cost models reasonably calculate the cost of providing service in Nebraska's more rural wire centers. The cost models are forward looking and designed to provide advanced services. Copper loops are restricted to 12 thousand feet or less. This is not reflective of actual plant in rural exchanges. Therefore, we recommend setting the prices in zones two and three relative to the zone one price. As a starting point, we propose capping the zone two price at two times the price in zone one. We propose capping the zone three price at four times the price in zone one. Of course the caps do not have to be limited to two and four times the zone one price. Other caps could be adopted instead.

IMPLEMENTATION ISSUES

Implementing the previously described methodology requires making choices with regards to cost models, input data sets, zone definitions and other factors. The issues related to those choices are outlined below.

Choice of Cost Model

A cost model is needed to calculate the direct loop costs within each wire center. The Commission has before it four models to use in determining costs. They are HAI, HCPM, BCPM and ICM. In its universal service cost docket (C-1633) the Commission carefully considered the HAI and BCPM models. In that docket the Commission recommended to the FCC a model for use in calculating federal universal service support. The Commission chose to recommend the BCPM model rather than HAI because the Commission felt that it was "more prudent to select a platform that we are confident will ensure a quality network in high cost areas of our state" (Order in Application No. C-1633, April 27, 1998, p. 3.).

The FCC ultimately developed its own model, the HCPM, for federal universal service calculations. HCPM contains its own customer location and plant design algorithm. It amends the plant design results to the reporting modules of the HAI model to generate its final output. HCPM produces copious output and it is possible to use HCPM to calculate direct loop costs by wire center. However, this Commission has never formally reviewed HCPM. The Commission has never held hearings or requested comments on the appropriateness of the HCPM for either universal service or UNE pricing purposes. The FCC has never recommended the HCPM for calculating UNE prices.

Qwest has put forth its ICM model for consideration as well. Although a docket is open (C-1415) which includes the proposal to use ICM to calculate costs, the Commission has not completed a thorough review of the ICM model. Nor has the Commission held hearings or requested comments on the appropriateness of the ICM for UNE pricing purposes. In addition, ICM is applicable to Qwest alone and cannot now be used to determine zone prices for companies other than Qwest. This defeats the Commission's desire to devise a methodology that can be used for all carriers.

Table 1 shows the average direct loop cost for Qwest's zone one using each of the available cost models. (The classification of Qwest's wire centers into zones is shown in Appendix 1.) BCPM 3.1 reflects the cost generated using BCPM with its initial input data set. The NE BCPM is the same model with its inputs modified to reflect more closely costs

in Nebraska. HAI generates the lowest average loop cost in zone one. ICM estimates the highest cost per loop.

Table 1

Average Cost per Line in Qwest's Zone One

Generated by Different Models

<u>HAI</u>	<u>BCPM 3.1</u>	<u>NE BCPM</u>	<u>HCPM</u>	<u>ICM</u>
\$10.03	\$13.30	\$13.54	\$18.36	\$25.55

The Commission has already extensively reviewed the BCPM model for federal universal service purposes. In densely populated areas, BCPM's plant assumptions reasonably mirror actual investment patterns. Therefore, the staff recommends that at this time, BCPM be used to calculate loop costs for UNE deaveraging.

The staff realizes that there is some question as to the legality of using a forward-looking cost model to determine UNE prices. However, that legal issue has not been resolved. In the future, we may have access to models that use embedded networks with forward-looking cost factors. Other costing methodologies and models may become available as well. After a thorough review process, it may prove that another model or method does a more accurate job of estimating costs for Nebraska carriers. For now, however, we are satisfied with the reliability of BCPM in calculating urban loop costs.

Inputs

The BCPM model was first submitted to the Commission for consideration during the Commission's review of the appropriate model to use in determining federal universal service support. With federal universal service as its purpose, BCPM was initially populated with an input data set reflecting average national costs. National figures were used for cable and placement costs, capital costs, depreciation rates and salvage values. Extensive hearings and workshops were held, in part, to discuss the appropriateness of those inputs. Ultimately the Commission recommended that the FCC adopt BCPM version 3.1 with most of the initial inputs. However, the Commission recommended substituting new capital costs, depreciation rates and salvage values into that data set. For clarity, we

call this the adjusted national data set.

Subsequent to the Commission's recommendation to the FCC of BCPM with the adjusted national data set, Qwest recommended a different input data set to be used for applications specific to Nebraska. According to Qwest, this new, Nebraska specific data set is more reflective of Nebraska costs. Some of its fiber and copper cable costs are higher than in the adjusted national data set. Others are lower. Facilities sharing percentages tend to be higher in the data set reflecting Nebraska costs than in the adjusted national data set. Many inputs, however, are identical in both data sets.

The Commission's preferred capital costs, depreciation rates and salvage values can be substituted into Qwest's Nebraska specific data set as well. This creates a third data set that is most reflective of costs in Nebraska. For clarity, we call this the adjusted Nebraska data set.

Our own analysis indicates that UNE loop costs generated by using BCPM's initial input data set are nearly identical to results generated using the adjusted Nebraska data set. The average cost for all Qwest wire centers excluding exchanges that are to be sold in the near future is \$20.31 using the initial data set and \$20.19 using the adjusted Nebraska data set. Table 1 above shows that the two data sets produce very similar average loop costs for Qwest's zone one as well.

Given that the two data sets have many common values, produce very similar results and that the adjusted Nebraska data set more accurately reflects cable costs in Nebraska, we recommend using the adjusted Nebraska data set, which includes the indicated changes in capital costs, depreciation rates and salvage values.

Forming Zones

A starting point for forming zones is statistical cluster analysis. Cluster analysis collects wire centers into groups based on similarities in their loop costs. However, cluster analysis ignores market factors that go beyond loop costs. Considerations such as wire centers that are contiguous and viewed by telecommunications companies and customers as parts of the same geographic area would be ignored by cluster analysis, as

would local calling areas and EAS considerations. Therefore, it seems most reasonable that the staff should work with industry participants to create zones that are meaningful from a market as well as statistical point of view. The result may be that wire centers with significantly different costs are averaged together due to the basic service offered. However, the staff feels this is a market reality that cannot be ignored.

Number of Zones

The FCC's rules call for the formation of at least three UNE price zones. However, the FCC's rules do not preclude Nebraska from creating more than three zones. Nor do they preclude the Commission from creating different numbers of zones for different carriers. The actual number of zones that the Commission adopts for each carrier will ultimately depend on the results of the cost model as well as market realities discussed earlier.

Resulting Zone Prices

Table 2 shows zone prices for Qwest that are derived from our initial recommendations. Each zone includes the wire centers shown in Appendix 1. The price for an unbundled loop in zone one is \$13.54. The prices in zones two and three are \$27.08 and \$54.16, respectively.

TABLE 2
Qwest Zone Prices

Zone	Price
1	\$13.54
2	\$27.08
3	\$54.16

Table 3 shows UNE zone prices that have been set in other states. Of the states that use only three UNE zones, Nebraska would have the lowest price for zone one by 41 cents. However, Nebraska's zone one price is well above the base rate zone prices for Washington and Minnesota. Nebraska's prices in zones two and three would be near the highest of all other states.

TABLE 3
Deaveraged UNE Prices in Other Qwest States

<u>State</u>	<u>Price in</u> <u>Base Zone</u>	<u>Price in</u> <u>Zone 1</u>	<u>Price in</u> <u>Zone 2</u>	<u>Price in</u> <u>Zone 3</u>	<u>Price in</u> <u>Zone 4</u>
Washington	\$7.50	\$13.89	\$15.73	\$17.78	\$24.18
Minnesota	\$8.81	\$12.33	\$14.48	\$21.91	- - -
Oregon	- - -	\$13.95	\$25.20	\$55.21	- - -
Utah	- - -	\$14.41	\$17.47	\$24.14	- - -
Iowa	- - -	\$16.04	\$19.08	\$32.25	- - -
North Dakota	- - -	\$16.41	\$27.66	\$62.22	- - -
South Dakota	- - -	\$17.01	\$18.54	\$24.37	- - -
New Mexico	- - -	\$17.75	\$20.30	\$26.23	- - -
Average		\$15.93	\$21.38	\$37.40	

Other Considerations

We have described a process for determining deaveraged UNE loop rates that can work on a carrier-by-carrier basis. The staff believes that this methodology will work in an unbiased and nondiscriminatory manner. The staff also believes that this is the best process to adopt given the cost information currently available to the Commission. If new information becomes available in the future, the Commission may revisit mechanisms for setting deaveraged loop rates. In this regard, the staff recommends that UNE zone creation and pricing should be open to periodic review, perhaps every two or three years, and that prices should be recalculated more frequently if significant numbers of exchanges are sold.

In docket C-1385 (August 1997), the Commission approved the arbitrated

interconnection agreement between Qwest and AT&T. This agreement was subsequently adopted by other CLECs as well. The agreement set a company-wide interconnection price and called for true-ups if the Commission approved a subsequent company-wide interconnection price that was different from the price initially agreed upon. The whole system of true-ups was premised on the Commission's ability to set and alter company-wide average interconnection prices.

The process of creating UNE loop rates is fundamentally different from setting a company-wide interconnection price. The staff believes that this profound change makes proposed deaveraged loop rates incomparable to a company-wide interconnection rate. In essence, once deaveraging occurs, there will be no company-wide average loop rate to compare against. Therefore, truing up makes little sense. It is the staff's opinion that once deaveraged UNE loop rates are adopted, there should not be a true-up against old company-wide interconnection agreement prices.

RECOMMENDATIONS

The staff recommends that the Commission:

- Adopt the BCPM model using adjusted Nebraska inputs to calculate loop costs in each wire center.
- Use cluster analysis as a starting point to develop both the number of zones and the wire centers encompassed within each zone. However, the Commission should also work with carriers to make adjustments for EAS, local calling areas, and other considerations.
- Determine the number and content of zones on a carrier-by-carrier basis.
- Use the cost-model-determined average loop cost for zone one as the unbundled loop price in zone one.
- Set the unbundled loop prices in zones two and three at no more than two and four times the calculated price in zone one.
- Forgo truing up deaveraged zone prices to the previous company-wide average interconnection price.

APPENDIX 1

UNE ZONE CLASSIFICATION SCHEME

NAME	CLLI	UNE ZONE	NAME	CLLI	UNE ZONE
Omaha Douglas	OMAHNENW	1	Sidney	SDNYNENW	2
Omaha 135th St	OMAHNECE	1	Lyons	LYNSNENW	2
Omaha 90th St	OMAHNE90	1	Chadron	CHDRNENW	2
Omaha 84th St	OMAHNE84	1	Oakland	OKLDNEUW	2
Omaha Fort St	OMAHNEFO	1	Gothenburg	GTBGNENW	2
Omaha Iazard St	OMAHNEIZ	1	Broken Bow	BRKBNENW	2
Omaha 156 St	OMAHNEHA	1	Clarkson	CKSNNEUW	2
Omaha Bellevue	OMAHNEBE	1	Wakefield	WKFDNENW	2
Omaha O St	OMAHNEOS	1			
Omaha Fowler St	OMAHNEFW	1	Loup City	LPCYNENW	3
Omaha 78th St	OMAHNE78	1	Pender	PNDRNEUW	3
Dakota City-So Sioux City	SSCYNENW	1	Elm Creek	EMCKNENW	3
Fremont	FRMTNENW	1	Laurel	LARLNENW	3
Grand Island	GDISNENW	1	Elwood	ELWDNENW	3
Norfolk	NRFLNENW	1	Alliance	ALNCNENW	3
Elkhorn-Waterloo	ELKHENW	1	Fullerton	FUTNNENW	3
North Platte	NPLTNENW	1	Big Springs	BGSPNENW	3
Valley	VLLYNENW	1	Axtell	AXTLNENW	3
Gretna	GRETENW	1	Bridgeport	BRPTNENW	3
Springfield	SPFDNENW	1	Crawford-Whitney	CRFRNENW	3
Bennington	BGTNNECO	1	Harrison	HRSNNENW	3
Wood River	WDRVNENW	1			
Cairo	CAIRNENW	1	Ainsworth	ANWONENW	Sale
Homer	HOMRNENW	1	Atlanta	ATLNNENW	Sale
			Atkinson	ATSNNENW	Sale
Wayne	WAYNNEUW	2	Emerson	EMSNNENW	Sale
Ogallala	OGLLENW	2	Farwell	FRWLNENW	Sale
Holdrege	HLDGNENW	2	Humphrey-Creston	HMPHNENW	Sale
Lexington	LXTNNENW	2	Howells	HWLSNENW	Sale

Mc Cook	MCCKNENW	2	O Neill	ONELNENW	Sale
Schuyler	SCHLNENW	2	Oxford	OXFRNENW	Sale
St Paul	STPLNENW	2	Pilger	PLGRNENW	Sale
Minden	MINDNENW	2	Randolph	RNDHNENW	Sale
West Point	WSPNNENW	2	Silver Creek	SLCKNENW	Sale
Tekamah	TKMHNENW	2	St Libory	STLBNENW	Sale
Central City	CNCYNENW	2	Valentine	VLNTNENW	Sale

APPENDIX 2

Calculating Direct Monthly Loop Costs by Wire Center Using BCPM

- 1) Process the model at grid level.
- 2) Write grid detail to file.
- 3) Create new spreadsheet.
- 4) Populate spreadsheet with grid data. Result is column of Annual Investment Items by grid.

Data **Column**

Company
3

Clli
4

Total Lines
12

Total DLC/DS1 Electronic Investment
23

Aerial Copper Cable Investment
25

Underground Copper Cable Investment
26

Buried Copper Cable Investment
27

Aerial Fiber Cable Investment
28

Underground Fiber Cable Investment
29

Buried Fiber Cable Investment
30

Pole Line Investment
31

Conduit Investment
32

5) Apply respective Annual Cost Factor to each Annual Investment Item by grid. Result is columns of itemized Annual Direct Expenses by grid.

6) Sum across Annual Direct Expense Items for each grid. Result is column of Total Annual Direct Expenses by grid.

7) Divide Total Annual Direct Expenses by total lines in grid and by 12. Result is column of Monthly Loop Cost by grid.

8) Aggregate grid Monthly Loop Cost and total Lines Served into respective wire centers.

9) At this point, the worksheet can be sorted by Monthly Loop Cost by wire center.

A) Monthly Loop Cost by wire center

B) Total Lines by wire center

10) Wire Centers are then classified into zones based on Monthly Loop Cost and by marketplace considerations such as EAS.

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