1   cost structure of the telecommunications network." *In the Matter of the Pricing*

2   *Proceeding for Interconnection, Unbundled Elements, Transport and Termination, and*

3   *Resale*, Docket Nos. UT-960369 et al., Eighth Supplemental Order, at 5 (Aug. 30,

4   1999). Staff recommends the Commission adopt the port charges that include a

5   flat-rated usage charge. In addition, as can be seen from the rate spread between

6   zones, there are material differences in costs between zones. Therefore, I also

7   propose that the combined port and switching rate element be deaveraged into

8   five zones. The supporting calculations are found in file Vz_calcs_rev.xls under

9   tab "port_sw_cost" in the staff workpapers CD-ROM.

10

11   **Q.   What rates do you propose for the NID?**

12   A.   The monthly rate for the NID is $.40 for Verizon. The supporting calculations are

13   found in file Vz_calcs_rev.xls under tab "NID" in the staff workpapers CD-ROM.

14

15

16   ~~Q.   Is Staff also proposing additional wirecenter deaveraging?~~

17   ~~A.   Yes, Staff is proposing that certain wirecenters exhibiting a strong core-fringe~~

18   ~~cost relationship be further deaveraged into a core and fringe zone scheme rather~~

19   ~~than the entire wirecenter being assigned to a single zone. The genesis for this~~

1   proposal is a Petition that was filed with the WUTC by Fairpoint

2   Communications on September 4, 2001 (UT-011220-P) petitioning the

3   Commission to change the zone classifications for certain wirecenters. The

4   petition identified nine Qwest wirecenters that were characterized as large,

5   exceeding 100 square miles, with dense urban cores having sufficient access lines

6   to qualify for inclusion in a less costly density zone. The wirecenters identified

7   in the petition are Aberdeen, Bellingham, Lacey, Moses Lake, Olympia, Pasco,

8   Port Angeles, Walla Walla, and Yakima. While the petition was withdrawn

9   shortly after it was filed and Fairpoint has since ceased doing business in

10   Washington, the issue raised in the petition is important for competition in

11   Washington and the Commission should consider it in this proceeding.

12

13   Q.   **What was the issue raised by Fairpoint's petition?**

14   A.   CLECs that operate in areas outside the high-density Seattle-Tacoma

15   metropolitan area pay higher unbundled loop rates because the wirecenters are

16   classified in higher cost density zones. There are a number of wirecenters

17   serving mid-size cities like Olympia, Pasco, and Port Angeles where the

18   population size and density are such that loop costs should be low enough to

19   allow the CLEC to compete in the city. However, the service area of the

1   wirecenters serving these cities also serves a large rural area such that the

2   average loop cost in the wirecenter results in a zone 4 or 5 classification, which

3   are the two highest cost zones in the state. This makes it uneconomic for the

4   CLEC to operate in the lower cost, denser areas in the cities. Staff is concerned

5   with the inability of CLECs to compete in areas where population size and

6   density should allow them to operate economically because meaningful

7   competition will not occur in these areas of the state where market entry is

8   justified economically. In order to address this concern, Staff is proposes that

9   certain wirecenters be disaggregated into core and fringe zones.

10

11   Q.   How do you propose the Commission determine the core and fringe zone

12   boundaries?

13   A.   The Commission should determine the core area as the area defined by the city

14   limits of the city contained in the wirecenter and the fringe area as the area

15   outside the city limits but within the wirecenter serving area.

16

17   Q.   How did you separate wirecenter costs into the core and fringe zones?

18   A.   The HAI model produces cost output disaggregated to the cluster level. The

19   cluster data represent serving areas for groups of customer locations, and the

1   ~~clusters are identified by the census block groups (CBGs) in which they are~~

2   ~~located. The loop cost outputs by clusters are first identified from the HAI 5.2(a)[1]~~

3   ~~model workfile. The cluster loop cost data are then separated between clusters~~

4   ~~contained inside, outside, and spanning the city limits, then reaggregated to~~

5   ~~develop loop costs for serving within the city limits versus outside the city limits.~~

6   ~~The core and fringe area costs were then determined for Qwest and Verizon~~

7   ~~wirecenters, and Staff selected wirecenters that exhibited a strong difference~~

8   ~~between core and fringe area costs for disaggregation. For Qwest, 15 wirecenters~~

9   ~~covering 13 cities qualified for inclusion while Verizon had none. The Qwest~~

10   ~~wirecenters that qualified for further deaveraging were placed into the~~

11   ~~appropriate zones by separately including the core and fringe costs and lines in~~

12   ~~the staff's zone optimizer program. Further testimony on the core-fringe~~

13   ~~deaveraging proposal will be provided on February 7, 2004.~~

14

15   ~~**Q. How did you identify the location of the loop cost cluster data relative to the**~~

16   ~~**city limits?**~~

---

[1] ~~The HAI 5.3 does not include an updated cluster module for determining cluster loop costs so cluster investment values were calculated using HAI 5.2 cluster module. The calculations are shown in Exhibit TLS-3, the Staff Workpapers.~~

1   A.   Staff used the ArcView 3.2a GIS software program along with Bureau of Census

2   data for census block groups (CBGs) and Washington State Department of

3   Transportation data on city boundaries and roads to accurately locate city limits,

4   census block groups and cluster data relative to one another. The CBG data layer

5   is overlaid with the city boundary data layer to identify CBGs relative to the city

6   limits. The cluster data centroids and cluster areas are projected and overlaid on

7   the city and CBG data to determine whether they are correctly located and to

8   visually determine whether clusters are contained wholly or partially within city

9   limits. The software, files and data used for the analysis are provided on the

10   Staff Workpapers CD-ROM. Maps showing the city limits, CBGs and cluster

11   centroids for the selected wirecenters are shown in the file "MAPS.pdf" in the

12   Staff workpapers.

13

14   Q.   **Were any of the cluster data you examined found to be incorrectly located?**

15   A.   Yes. Each data cluster position is located by its bearing and distance from the

16   wirecenter. After determining the necessary adjustments to properly project the

17   clusters, the location of the cluster centroid was checked to see if it was located in

18   the CBG it is assigned to. For each wirecenter where core-fringe deaveraging is

19   being proposed, I checked the cluster locations to see if they were located within

1   its assigned CBG. I found two kinds of location errors associated with data

2   clusters that were not correctly located. The first is rotation error. Rotation

3   errors are noted when a cluster is not correctly located but it can be moved to its

4   proper location by changing only the bearing angle. This type of error does not

5   cause any change in cost if it is corrected. The second type of error occurs when

6   the cluster cannot be properly located unless the radial distance between the

7   wirecenter and the cluster is changed. If the radial distance of a cluster needs to

8   be changed to properly locate the cluster, the cost of the cluster will also be

9   higher or lower depending on whether the correct radial distance is closer or

10   farther from the wirecenter. With the exception of the Aberdeen wirecenter,

11   there were very few errors in the clusters involving changes to radial distance.

12   The Aberdeen wirecenter had 16 clusters that were incorrectly located such that

13   the radial distance had to be adjusted. In order to correct the radial distance

14   measurement, I used the software program measuring tool to measure the

15   correct distance between the wirecenter and the CBG associated with the cluster.

16   The cluster data base file was then updated with the revised radial distances to

17   calculate corrected cost estimates.

18

19

1 **Q.** **Do you have any further testimony at this time?**

2 A. No.

3

SUPPLEMENTAL DRIECT TESTIMONY Exhibit T- ___ (TLS 6T)
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