



June 15, 2016

Mr. James Schlichting
Wireless Telecommunications Bureau
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: Followup Regarding Auction 901 Costs

Dear Jim:

During our last discussion on Auction 901 costs, U.S. Cellular agreed to provide you further explanation regarding some of the variations in costs by state for the categories of antenna and radio equipment costs. Based upon our review, we offer the following observations.

For antennas, we focused on the cost differences between Oklahoma (average costs of \$61,000 per site) and a more expensive state - West Virginia (average costs of \$155,000). As a starting point, the towers in West Virginia were all over 300 feet in height whereas the towers in Oklahoma were all under 200 feet. This increases the costs for the length of hybrid cable installed at each site and is captured in the "antenna" category. In addition, due to the tower heights in West Virginia, significant additional tower lighting costs were incurred and are reflected in this cost bucket. Installation costs were also higher in WV than Oklahoma due to region and terrain.

In regard to radio equipment, we compared Virginia (average costs of \$241,000) with Illinois (average costs of \$81,000). Our network equipment vendor in Virginia is different than in Illinois. As a result, construction in Virginia required the purchase of equipment at a higher price per unit than our alternate equipment vendor technology deployed in Illinois. In addition, that equipment must be installed by the vendor in those markets per our vendor arrangement. The differential with Illinois is further explained by the fact that we were able to deploy a significant amount of used equipment in these Illinois build projects. That used equipment value was not directly booked against the cost of that project for the

numbers we presented to you. If we had included those amounts, the actual costs would have been higher. In addition, the deployment in Virginia was more costly due to the deployment of 4T4R eNB equipment to meet different RF requirements for the terrain.

If you have additional questions, please let us know.

Sincerely,

/S/

Grant B Spellmeyer
Vice President – Federal Affairs & Public Policy