Exhibit No:
Issue: Network Design & Reliability; Services and Service Quality
Witness: Alan Johnson
Type of Exhibit: Supplemental Surrebuttal Testimony
Sponsoring Party: U.S. Cellular
Case No: TO-2005-0384

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO: TO-2005-0384

SUPPLEMENTAL SURREBUTTAL TESTIMONY

OF

ALAN JOHNSON

ON BEHALF OF

USCOC OF GREATER MISSOURI, LLC d/b/a U.S. CELLULAR

December 7, 2006

****Denotes Highly Confidential or Proprietary Information****

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Application of USCOC of Greater Missouri, LLC for Designation as an Eligible Telecommunications Carrier Pursuant To The Telecommunications Act Of 1996	)))))	Case No. TO-2005-0384

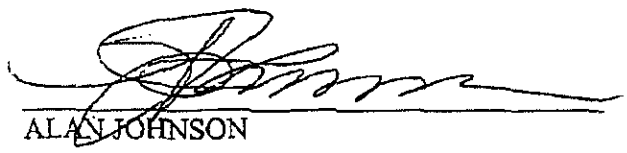
AFFIDAVIT OF ALAN JOHNSON

I, Alan Johnson, under penalty of perjury, affirm and state this 7th day of December, 2006:

1. My name is Alan Johnson. I am employed by United States Cellular Corporation, as Regional Network Director of Engineering. My office is located at 1210 South Detroit, Tulsa, Oklahoma 74120

2. Attached hereto and made a part hereof for all purposes is my Supplemental Surrebuttal Testimony on behalf of USCOC of Greater Missouri, LLC d/b/a U.S. Cellular, having been prepared in written form for introduction into evidence in the above-captioned docket.

3. I have knowledge of the matters set forth therein. I hereby affirm that my answers contained in the attached testimony to the questions propounded, including any attachment thereto, are true and accurate to the best of my knowledge, information and belief.



ALAN JOHNSON

SUPPLEMENTAL SURREBUTTAL TESTIMONY OF ALAN JOHNSON

Q. PLEASE STATE YOUR NAME, TITLE AND BUSINESS ADDRESS.

A. My name is Alan Johnson. I am Regional Network Director of Engineering with United States Cellular Corporation. I also perform work for USCOC of Greater Missouri, Inc, d/b/a U.S. Cellular ("U.S. Cellular"), the applicant in this proceeding. My business address is: 1210 South Detroit, Tulsa, Oklahoma 74120.

Q. PLEASE DESCRIBE YOUR EDUCATION AND EMPLOYMENT BACKGROUND.

A. I received a Bachelor of Science in Electrical Engineering from the University of Saskatchewan. I have been employed by U.S. Cellular for the past four years. Prior to that I was employed for approximately nine years by Verizon Wireless. Overall, I have been working in the wireless industry for fifteen years, and the telecommunications industry for twenty-one years.

Q. WHAT ARE YOUR RESPONSIBILITIES WITHIN U.S. CELLULAR?

A. I am responsible for the budgeting, planning, engineering and construction of all cell sites, switch equipment and associated backhaul network for the west region markets including Missouri.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY TODAY?

A. My testimony responds to the supplemental rebuttal testimony recently submitted on

behalf of Staff and the incumbent local telephone companies regarding U.S. Cellular's compliance filing submitted on August 11, 2006. Specifically, I will respond to statements made in that testimony regarding U.S. Cellular's plan for using federal high-cost support during its first two years as an ETC in Missouri, as well as other issues raised in that testimony.

Q. STAFF WITNESS MCKINNIE STATES THAT IT WAS IMPROPER TO INCLUDE VOICE MAIL AMONG THE EXPENDITURES ASSOCIATED WITH THE TWO-YEAR PLAN. DO YOU AGREE?

A. Yes I do. In preparing our initial testimony, I understood voice mail to be an integral part of our service offering that was not an expenditure that could be segregated. I am advised by counsel that expenditures for non-supported services that can be easily segregated should not be included as eligible for universal service support. In reviewing this matter after reviewing Mr. McKinnie's testimony, I now understand that our voice mail component is an expense that can be segregated from those that provide the supported services (unlike for example, a tower). The costs associated with voice mail are projected to be only **_____** per cell site, so the total impact of removing voice mail expenditures will be only approximately **_____**, yielding a total expenditure amount of **_____** for the plan. Because this figure still exceeds the amount of support we are projected to receive during the first two years, this deduction does not require an amendment to our plan.

Q. MR. MCKINNIE REQUESTS CLARIFICATION OF "MISCELLANEOUS COMMON EQUIPMENT". CAN YOU DESCRIBE WHAT IT IS AND WHY IT IS PROPERLY INCLUDED AMONG U.S. CELLULAR'S ETC CAPITAL EXPENDITURES?

A. Yes. Within our switching platform there is equipment that is commonly used to provide both supported and non-supported services which cannot be segregated. For example, the power system in a switch serves every switching function, not just the nine supported services. We are

advised by counsel that such capital expenditures are an appropriate use of support. Another good example is a tower, which may support both voice and data services. This is similar to a wireline network, where a carrier may use support to provide voice service on a twisted copper pair, which also delivers non-supported vertical services such as voice mail or DSL. We are committed to use support as required by law and have done so in a number of other states. We would be happy to work with the staff to resolve any further questions concerning permissible uses of high-cost support.

Q. WHAT IS YOUR RESPONSE TO STAFF WITNESS ADAM MCKINNIE'S REMARKS ABOUT THE SUFFICIENCY OF THE MAPS PROVIDED IN THE TWO-YEAR PLAN?

A. In response to Mr. McKinnie's concerns, we have prepared two new maps providing additional detail. First, we have prepared a map of existing coverage that is identical to that provided as Appendix 4 to the 2-year plan, except that it now shows the locations of cell sites with dots, in addition to the coverage provided by those sites. This map is attached to my testimony as Exhibit A and is intended to replace Appendix 4 of our August 11 compliance filing. Second, we have prepared an "after" map showing a composite of the coverage from existing sites and the predicted coverage from the 39 proposed new sites. This map is attached as Exhibit B. We are hopeful that these two new maps satisfy staff's concerns.

Q. CAN U.S. CELLULAR PROVIDE A LIST WIRE CENTERS WHERE "NO IMPROVEMENTS ARE NEEDED" AS STAFF WITNESS MCKINNEY SUGGESTS?

A. We are unable to provide the information Mr. McKinnie requests, for one reason: we can't identify any wire centers that are not in need of improvement. The fact that a given wire center does not appear in our 2-year plan does not mean that additional coverage or capacity are

not needed there; it means that our ability to make those improvements is limited by available funding as well as our need to build out in an orderly fashion in a manner that follows sound wireless engineering principles. We believe every wire center in our Missouri ETC service area has at least some areas that are in need of improved coverage and capacity. Every year we will use available high-cost support to make improvements in additional areas, and we have committed to report our progress annually to the Commission. Should we identify any wire center where no improvements are needed, we will identify them for the Commission. As of this date, we believe all wire centers need some improvement.

Q. DO YOU AGREE WITH THE ASSESSMENT BY THE ILECS' WITNESSES IN THIS CASE THAT U.S. CELLULAR'S PROPOSED ETC BUILD-OUT WOULD PRIMARILY OVERLAP WITH EXISTING COVERAGE?

A. Emphatically, no I do not. First, the maps submitted with the plan clearly show that the majority of the 39 proposed sites will provide coverage to some areas that currently do not receive any coverage and all will provide improved coverage to areas that need it. A number of proposed sites will cover large areas that currently receive no coverage whatsoever. The maps we have provided make it clear that the effect of the proposed build-out will be to significantly expand our footprint in rural Missouri. Additionally, I have prepared a modified map, attached as Exhibit C, that shows the 39 proposed tower locations in relation to existing coverage. This map demonstrates that every one of the proposed sites is targeted to provide coverage to areas with poor or nonexistent coverage. In reviewing the analysis provided by ILEC witnesses, I question their qualifications to comment on our filing because they ignore the fundamentals of wireless network design. For example, the ILEC witnesses would have the Commission believe that a wireless carrier can simply pick a spot in the midst of a large unserved area without regard

to coverage, capacity, hand-off capabilities, and back-haul requirements. The expansion plan set forth in our filing represents sound wireless network design, which must be undertaken to responsibly expand our footprint outward. Cell sites are required to improve service in relatively sparsely populated areas that today have poor service – a critical component of improving service quality for consumers. Things that urban consumers take for granted such as seamless hand-offs from one site to another, and network redundancies that are important in outage and emergency situations will be made available as a result of some of the construction we propose in our plan. It is possible that the other witnesses did not have available to them color versions of our maps when they prepared their testimony and this is unfortunate. However, nothing in their testimony indicates an understanding as to why the 39 cell sites we have proposed represents an entirely appropriate expansion of our network to unserved and underserved areas, from the perspective of an engineer who designs wireless systems.

Q. PLEASE DESCRIBE THE DIFFERENT LEVELS OF SIGNAL COVERAGE SHOWN ON THE COLOR MAPS.

A. The map shows four different levels of signal coverage representing design margin aimed at accomplishing the following goals. First, coverage depicted as green denotes "urban" signal strength. Consumers should be able to place a call outdoors, in a vehicle, and in most buildings in the areas shown in green. Second, coverage depicted as blue denotes "suburban" signal strength. Consumers in these areas should be able to place a call outdoors or in a vehicle, but may not get service in some buildings. Third, coverage shown as pink denotes "rural" coverage, that is, areas where consumers should be able to place a call outdoors or in a vehicle, but may not get service in buildings. Lastly, coverage shown as yellow denotes "highway" coverage. Signal in these areas is generally strong enough where consumers should be able to

place a call outdoors or in a vehicle, but typically may not get service in buildings. As the depicted coverage transitions from "urban" to "highway," there is an increasing probability of consumers experiencing dropped calls in these areas, especially in buildings. As I will discuss further below, we use maps only as a rough estimate of where a consumer will receive high-quality signal, and these indications must be corroborated through drive tests and other methods. On the other hand, areas showing up on the map as uncovered are a reliable indication of where service is poor or nonexistent. The ability to make a call in a given spot can vary due to terrain, foliage, and other factors. Also, as we noted in our compliance filing, even the color version does not have sufficiently high resolution to identify all dead spots or pockets of weak signal strength.

Q. DO YOU AGREE WITH MR. BROWN'S STATEMENT THAT U.S. CELLULAR'S PROPOSED SITES WILL NOT EXPAND SERVICE INTO "MORE RURAL AREAS"?

A. Not at all. The proposed sites will bring improved coverage primarily to areas that are rural, that is, relatively low in population density. I've attached a chart as Exhibit D which illustrates the existing and proposed coverage maps on a wire-center basis and provides three lists of wire centers that will receive improved coverage: (1) those that currently have no coverage or have only very sparse coverage (i.e., primarily white with only small dots of coverage), (2) those that currently have spotty coverage (i.e., some yellow, blue and/or green but significant patches of white), and (3) those that currently have some strong coverage (i.e., mostly green or blue). All of these wire centers can fairly be described as the wire centers that will see significant new or improved coverage as a result of the proposed USF build-out. According to my analysis, the proposed sites will bring coverage to 20 wire centers that currently have sparse

to no coverage (Group I). Those wire centers have an average population density of approximately 27 persons per square mile. The proposed sites will bring coverage to 14 wire centers that now have spotty coverage (Group II). Those wire centers have an average population density of approximately 22 persons per square mile. The proposed sites will bring improved coverage to 11 wire centers that now have some strong coverage (Group III). Those wire centers have an average population density of approximately 29 persons per square mile. Missouri, which is largely rural, has an average population density of roughly 70 persons per square mile.[1] Moreover, as shown in the chart, nearly all of the wire centers experiencing improvements from the 39 proposed towers are lower in population density than the average population density for the ILEC serving the given area. Therefore, it is clear that the proposed sites will bring coverage to unserved and underserved areas in relatively rural areas of the state.

Q. WILL THE WIRE CENTERS IN THE THIRD CATEGORY RECEIVE SUBSTANTIALLY IMPROVED SERVICE, EVEN THOUGH CURRENT COVERAGE APPEARS TO BE GOOD?

A. Yes, they will. It's important to note that it would take an impractically large map to show the level of detail needed for a proper understanding of all areas in which poor or spotty signal quality is experienced. Many of the areas that appear relatively well covered on the map of existing coverage in reality have many pockets of poor coverage and even "dead spots." Because of the inherent limitations of maps, we routinely conduct drive tests to corroborate the estimated levels of signal coverage shown on propagation maps. Attached to my testimony as Exhibits E through I is a series of maps showing the results of drive tests we did in several of the areas that will be impacted by the sites proposed in our 2-year plan but appear on the map to be

[1] Please note that this average figure is not weighted by population; if it were, the analysis would be heavily influenced by wire centers in and around St. Louis and result in a weighted population density of over 100 persons per square mile.

primarily receiving green (Urban) signal coverage. We conducted these drive tests between September 2005 and July 2006 as part of our ongoing efforts to improve the accuracy of how we gauge the customer experience throughout our service territory. These drive tests demonstrate that even in many areas showing up on the coverage maps as primarily green (Urban), there are significant areas where consumers experience lower levels of signal strength or even no signal at all. Based on these drive tests, it is evident that each of the areas in question needs significant improvements in signal coverage in order for consumers to be able to make, receive, and hold calls the way they would be able to in urban areas.

Additionally, wireless systems are designed with overlapping coverage to ensure consistent signal quality, thereby reducing the probability of dropped calls, and to ensure proper handoff performance which is the fundamental feature of well designed mobile networks. In areas of fringe coverage, customers experience a higher probability of network problems and as they exit the covered area will ultimately drop the call entirely. As our network grows, we design system sites to ensure sufficient overlap to enhance coverage in fringe areas, in addition to providing signal to new areas. So, although a site may not provide "new" coverage throughout its footprint, we would only propose such a site to provide substantially improved service in a poorly served area.

Q. YOU MENTIONED THAT THERE ARE PROBLEMS WITH THE ANALYSIS PROVIDED BY WITNESSES GLENN BROWN AND ROBERT SCHOONMAKER. PLEASE ELABORATE.

A. A major problem with Mr. Schoonmaker's analysis is that his testimony focuses primarily on the extent to which our proposed sites will provide increased coverage to areas served by SCTG companies. This presents a misleading picture because it ignores all of the

improvements that will be experienced in areas served by non-SCTG members such as ALLTEL, Sprint, Chariton Valley Telephone Company, and AT&T Missouri. Mr. Brown's analysis has the same problem. Of course, as explained above, U.S. Cellular's proposed sites will bring coverage to significant areas served by SCTG members and CenturyTel for the first time, and they will add coverage and improve service quality in areas already receiving some signal coverage. Another problem with their testimony is that they fail to recognize the improvements in service quality and access to emergency services that result when a new site provides additional coverage to an area that already receives some signal. In many of these rural areas, high-cost support is the difference between spotty coverage and high-quality coverage.

Q. DOES THAT MEAN THAT MANY OF THE AREAS WITNESSES BROWN AND SCHOONMAKER STATE "ARE ALREADY SERVED", U.S. CELLULAR'S PROPOSED SITES WILL BRING SIGNIFICANT BENEFITS?

A. Yes. As I explained above, it is not practical to provide a map that is large enough to depict all of the areas where service is sparse or spotty. In many of the areas shown as mostly or even all green, there are significant areas where poor or even no coverage exists. We know where in our network that coverage must be improved. We have targeted these areas with this filing. Both witnesses look at a map and see "coverage" and conclude without having conducted any field or other analysis that we are "already serving" there. Without reservation, I can assure this Commission that no company, including U.S. Cellular, is going to build facilities in an area where consumers are already well-served. We only build facilities in areas where service needs to be improved. Because a cell site covers a relatively large area, it is possible that there will be some overlap with a small area that is already adequately served. This is completely unavoidable; indeed, in order to improve service in one area, we cannot change the laws of physics, which dictate that signals may propagate to some areas that are already served. What is

important here is to understand that our plan proposes substantial new coverage to areas that are either unserved or poorly served, that our plan is consistent with responsible engineering principles for wireless network design, and that the amount of expansion of service area on that map is consistent with the construction of 39 new cell sites. Although the ILEC witnesses may not understand, what we have proposed is an entirely appropriate plan to properly expand a wireless network consistent with sound engineering design principles and is consistent with our company's goal to provide all consumers with complete satisfaction.

Q. CENTURYTEL WITNESS GLENN BROWN STATES THAT THERE ARE "SIGNIFICANT AND UNEXPLAINED CHANGES IN PREDICTED SERVICE COVERAGE" BETWEEN THE MAPS SUBMITTED IN DISCOVERY LAST YEAR AND THOSE ATTACHED TO THE 2-YEAR PLAN SUBMITTED ON AUGUST 11, 2006. DO YOU AGREE?

A. I agree that there are changes in the coverage depicted in last year's maps compared to those we submitted in our compliance filing that one could characterize as "significant." However, I do not agree that these changes are unexplained and reject any notion that they are somehow untoward. In response to CenturyTel's Second Set of Data Requests, DR-16, we explained that several factors may have contributed to the appearance of greater signal coverage on the newer maps. We explained that U.S. Cellular constructed numerous cell sites in the time since we prepared the first set of maps. We also explained that we made some adjustments to our propagation model after conducting drive tests in various portions of our Missouri network. I do not believe either of the ILEC witnesses are qualified to opine on how adjustments in propagation models can be made based on drive testing – which adjustments can result in noticeable adjustments in coverage.

The essential point is this: Drive testing is the most accurate way to measure signal

coverage and data we collect in such tests is reflected in a more accurate depiction of coverage on our maps. As a result of drive testing and propagation model adjustments, sometimes map coverage increases and sometimes it decreases. I reject any intimation by the ILEC witnesses that we are expanding our predicted coverage beyond what it really is for purposes of this proceeding. What we have now is more accurate than what we had a year ago, before we conducted our drive testing.

Q. DID MR. BROWN ADDRESS THE FACTORS DISCUSSED IN YOUR DATA RESPONSE?

A. No. Although he reprinted our response in its entirety, he only addressed the first factor discussed in that response. He ignored the second factor – the tuning of our propagation model, which we explained "often results in significant changes in predicted coverage" – altogether. I don't know if this omission was a mistake on his part, or if he simply did not have a response because he is not qualified to opine on developing and tuning propagation models.

Q. SCTG WITNESS ROBERT SCHOONMAKER ACKNOWLEDGED THE EXPLANATION THAT THE PROPAGATION MODEL HAD BEEN TUNED, BUT NONETHELESS STATED THAT U.S. CELLULAR "OWES A MORE DETAILED EXPLANATION SO THAT THE PARTIES AND THE COMMISSION CAN BETTER ASCERTAIN WHICH OF THE TWO COVERAGE MAPS IS MOST CREDIBLE." DO YOU AGREE?

A. Mr. Schoonmaker did not mention what it was he wished to learn in addition to what was provided in our data response and were he a designer of wireless networks he would have understood my explanation. The explanation provided in response to CenturyTel DR-16 provided more than enough detail to understand the reasons why signal propagation maps may change. More fundamentally, we were asked to provide maps demonstrating U.S. Cellular's current coverage and the predicted coverage to be provided by sites it proposes to build with

federal high-cost support. The maps filed with our 2-year plan provide a clear overall picture of the company's current and proposed coverage. Wireless carriers routinely undertake such adjustments so they can continually improve their processes for estimating coverage levels for network budgeting and planning purposes, and the maps attached to our compliance filing are more accurate as a result of adjustments made to propagation modeling over the past year. That said, should the Commission direct us to file existing and proposed coverage maps using the same propagation model settings as those used in last year's maps, we will do so, even though last year's maps provide the Commission with less accurate information, now that our propagation model has been tuned.

Q. DO YOU SHARE STAFF WITNESS ADAM MCKINNIE'S CONCERN ABOUT U.S. CELLULAR'S CONSTRUCTION OF FOUR SITES FROM THE PLAN PREVIOUSLY SUBMITTED TO THE COMMISSION?

A. I understand his concern; however, the construction of some sites earlier than we originally predicted is entirely consistent with how wireless networks develop over time. This is especially true in the very early years of a network's development when an enormous amount of data is collected in order to prioritize construction projects. It may seem a little bit of a cliché to some, but our company's entire business model is based on a strategy where business results are a reflection of customer satisfaction. Throughout the year there are several measures that we use to understand whether we are achieving customer satisfaction. These include the Customer Beat Index which is a third party customer survey done monthly, customer trouble tickets which track actual customer complaints, statistics from our system and feedback from frontline associates who are talking to our customers. All of this feedback is used and combined with the market-specific competitive information to ensure that we invest capital in the best possible way

throughout the year. We track and analyze all of this information in order to determine where the next investment should be made.

Oftentimes new information causes us to move a cell site up or down on the priority list. Since the filing of our petition in this case, there were four instances where we moved cell site construction up in order to improve our service to our customers. Below is a specific explanation for each of the four sites:

_____: The priority of these sites moved up because of the need to shorten existing microwave hops by placing the new sites between existing sites. By cutting the microwave hop distance in half, the construction of these sites increased signal strength and system reliability. The need for these improvements was identified in late 2005 during a redesign of the southern Missouri network and they simply could not wait until the ETC petition was acted upon.

_____: The priority of these sites moved up because of changing competitive conditions and increasing customer feedback as received through various sources, such as trouble tickets, third-party surveys, feedback from local associates and agents. Again, we simply could not wait until the ETC petition was acted upon to construct them.

I recognize Mr. McKinnie's concern that we built four cell sites after we previously put them on our list of sites that would not be constructed in the absence of support. What the Commission needs to understand is that our list is going to change. When we first provided the list, we told the Commission that the list could change, and it did. In our business, a year is a very long time and for very good reasons there were four cell sites that moved up off our list of sites that "will not be built." We are doing our best to balance the need to provide the Commission with a list of projected sites that will not be built with our need to respond to our

customers' needs and change course when new information dictates. Every time a site moves up in priority and is built ahead of the timeframe anticipated in our ETC plans, we will replace it with another project that would not be planned within that timeframe without high-cost support. Our commitment is to use all available support properly and report what we have done each year so that the Commission can be satisfied that we are doing so.

Q. IS IT UNUSUAL FOR PLANS TO CHANGE, RESULTING IN THE CONSTRUCTION OF SITES THAT WERE NOT EXPECTED TO BE BUILT FOR A YEAR OR MORE?

A. It is not at all unusual. When we assemble a list of sites that we would not otherwise build without support, we take those from a larger list of sites that we would like to build at some point in the future, but cannot build according to our current finances and priorities. Periodically, we will reassess our priorities as a result of our analysis and customer feedback as described above. This can result in a site being built well before it was anticipated to be built.

Q. AS STAFF WITNESS ADAM MCKINNIE POINTED OUT, U.S. CELLULAR'S TWO-YEAR PLAN PROVIDED AGGREGATE COSTS BASED ON AVERAGE COST PER CELL SITE, AND NOT SPECIFIC COSTS FOR EACH CELL SITE. PLEASE EXPLAIN WHY SPECIFIC COSTS WERE NOT PROVIDED FOR EACH PROPOSED SITE.

A. For projects that have not yet commenced construction, we cannot provide "actual" costs simply because such costs have not yet been incurred. For example, when we project a cell site to be constructed in a town, we know generally where the tower will need to be located, but we do not know whether we will need to build a new tower, known in the industry as a raw land site, or lease space on an existing tower. We often do not know the feasibility of T-1 backhaul versus microwave until we understand exactly where the site will be located. We do not know how much we will spend on engineering, obtaining zoning approvals and other legal permits,

concrete, shelter space, coaxial lines, security fencing, and many more other aspects until we make an assessment immediately before green lighting a project. In addition, there are several variables that can affect the cost of a raw land site such as soil conditions, access to utilities, vehicle access and terrain. What we do know now is what we spend on average. After the project is completed, we will know is exactly what we spent – and we will provide that information to the Commission in our annual report. We do not believe the Commission would expect us to know all of the information set forth above prior to our going through the site selection and acquisition processes. It is simply not realistic to go through that process now, in some cases two years before it would normally be done, and before having some assurance that we have been granted ETC status. I hope this is an acceptable answer because no other state has ever required the level of precision requested by staff as a part of our plans. We have no problem providing the level of detail requested by staff as a part of our annual report that explains exactly how we used support.

Q. MR. MCKINNIE IS CONCERNED THAT BECAUSE USCC HAS USED ESTIMATES FOR INDIVIDUAL CELL SITE EXPENDITURES, IT WILL BE IMPOSSIBLE FOR THE COMMISSION TO TRACK ITS EXPENDITURES AT THE ANNUAL REVIEW? DO YOU AGREE?

A. No, I do not. As stated above, it is impossible for us to know today exactly how much we will spend at any individual cell site. We will know when we go through the process of site acquisition and analyzing each cell site as it is constructed. I would point out to the Commission that the actual cost of constructing a site often changes halfway through the project due to many variables. Thus, even if we did all of the site acquisition work for 39 cell sites, we would not be able to provide a number with the precision that Mr. McKinnie requests. Once a site is constructed, we will be able to provide to the commission a more precise figure demonstrating

how much a particular site cost to construct. When the commission conducts its annual review, we will be sure it has sufficient data to understand the costs of constructing each site listed in our build plan.

Q. WITNESS GLENN BROWN STATES THAT U.S. CELLULAR'S MISSOURI NETWORK EXPENDITURES OUTSIDE OF ST. LOUIS BETWEEN 2004 AND 2005 SHOULD SERVE AS A "BASELINE" FOR MEASURING U.S. CELLULAR'S BUILD-OUT AS AN ETC. IS THIS A REASONABLE SUGGESTION?

A. No; it really doesn't reflect the way wireless network planning, budgeting and spending happen. Any telecommunications carrier's network expenditures will vary significantly from year to year, and Mr. Brown must surely know that even wireline network spending is "lumpy". Based on my experience, capital expenditures in a given area can fluctuate by $10 million or more from one year to the next. What is critical is for the Commission to understand that we can segregate funds received for our Missouri operations and dedicate them to projects that would not otherwise be funded in the absence of support.

Q. WHY DO CAPITAL BUDGETS VARY SO MUCH FROM YEAR TO YEAR?

A. There are several factors that affect capital budgeting from year to year. First is the forecast growth for the market which triggers cell site expansions, additional cell sites and additional supporting switch equipment. Throughout the year the actual growth is monitored and adjustments are made to capital expenditures, up or down, as required. Second, there are continual upgrades to the infrastructure that enhance the performance, efficiency and service for our customers. Third, as our network ages, capital is allocated to replacing equipment that is at end of life to ensure we maintain a reliable, safe and efficient network. Specific market factors and the competitive situation for each market also affect budgets. None of these factors is

related to the incremental high-cost support funds we invest in the state.

Q. DO YOU AGREE WITH WITNESS SCHOONMAKER'S STATEMENT THAT THERE WOULD BE NO "INCREMENTAL" BENEFIT TO U.S. CELLULAR'S DESIGNATION BECAUSE "WIRELESS SERVICE, INCLUDING 911, IS ALREADY BEING PROVIDED IN AREAS SERVED BY NORTHWEST MISSOURI CELLULAR AND CHARITON VALLEY CELLULAR"?

A. No, and its somewhat irresponsible for him to make such a blanket statement, in view of the substantial health and safety benefits that will accrue as a result of our new cell site construction plans. After all, we're proposing new or improved service to over a quarter million rural consumers. So without a doubt, our designation will bring additional benefits in the areas he identifies. Our core mission is to provide the highest possible network quality to consumers and if we are designated Missouri consumers are going to see significant benefits from 39 new cell sites within two years, and that is only the beginning. Every year thereafter that federal high-cost funds are flowing, we will build more.

Mr. Schoonmaker's statement about the possible down side to designating more than one ETC fails on two counts. With regard to Chariton Valley Cellular (Mr. Schoonmaker refers to Missouri RSA No. 5, in which Chariton Valley Cellular holds a partnership interest along with an ILEC, Grand River Communications), that company was indeed designated in some areas for which U.S. Cellular now seeks ETC status. However, I am advised that Missouri RSA No. 5 is having serious difficulties achieving compliance with the FCC's E-911 rules, and it has sought multiple extensions of FCC deadlines with no firm commitment to a deadline or even any assurance that it will achieve compliance at all. I understand that the company told the FCC that in conducting tests with PSAPs in early November of 2006, it experienced "problems with the transmission of Phase II location data" and needed further testing. The company also noted that:

> [t]he preliminary tests also reveal that Chariton Valley is so far unable to provide acceptable accuracy and reliability location information to the

> PSAP consistent with Section 20.18(h)(1) of the Commission's Rules. Based on the results of this initial testing, Chariton Valley believes that it will be necessary to seek a related waiver assuming further testing confirms these preliminary results. Chariton is working with its vendor to implement a solution to the accuracy issue and will advise the Commission of its timetable for compliance in the near future.[2]

As we have shown in our data responses and other submissions, U.S. Cellular meets Phase II E-911 accuracy standards and the requirement to provide Phase II E-911 location information to PSAPs within six months of a valid request. U.S. Cellular is 99.8% in compliance with the handset penetration requirement, in contrast to the vague promises of more testing by Missouri RSA No. 5. Our handset penetration will only increase as more customers are encouraged to migrate to Phase II-capable handsets. Also, it is notable that Missouri RSA No. 5 cannot meet the accuracy standards applicable to its network-based E-911 solution. Those standards, even if it could meet them, are less stringent than those applicable to handset-based solutions such as U.S. Cellular's.

As I have previously testified, high-cost support from the USF will enable U.S. Cellular to invest in the construction and upgrading of cell sites and other infrastructure that will bring improved signal coverage and capacity to rural areas. Each year, U.S. Cellular will fill in additional areas that are unserved and underserved, and as a result, bring improved E-911 service to rural consumers. The troubles experienced by Missouri RSA No. 5 strongly suggest that U.S. Cellular's designation will bring important public safety benefits that are not currently being offered by the other competitive ETCs in those areas.

Mr. Schoonmaker's statement fails for a second reason. I am advised that U.S. Cellular can only get support when it gets a customer – that is – there is a fixed amount of support

[2] In the Matter of Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, Missouri RSA #5 Partnership d/b/a Chariton Valley Wireless Services, Second Amendment to Petition for Waiver of Section 20.18(f) of the Commission's Rules (Nov. 20, 2006) at p. 3 n.6.

available to competitive ETCs in any one area. Northwest Missouri Cellular and Missouri RSA No. 5 now have a head start on us in the overlapping areas; however, if we provide superior service, consumers may choose us and we'll get their dollars and federal high-cost support. Northwest Missouri Cellular and Missouri RSA No. 5 will lose them. Thus, while I understand the concerns of Mr. Schoonmaker and his clients, it is the consumer who comes first. When we are able to construct our facilities in these areas, it is consumers who will win because we will have to compete for both the customers and the support that is available in the area.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

EXHIBIT A

CONTAINS PROPRIETARY INFORMATION IN ITS ENTIRETY

EXHIBIT B

CONTAINS PROPRIETARY INFORMATION IN ITS ENTIRETY

EXHIBIT C

CONTAINS PROPRIETARY INFORMATION IN ITS ENTIRETY

EXHIBIT D

CONTAINS PROPRIETARY INFORMATION IN ITS ENTIRETY

EXHIBIT E

CONTAINS HIGHLY CONFIDENTIAL INFORMATION IN ITS ENTIRETY

EXHIBIT F

CONTAINS HIGHLY CONFIDENTIAL INFORMATION IN ITS ENTIRETY

EXHIBIT G

CONTAINS HIGHLY CONFIDENTIAL INFORMATION IN ITS ENTIRETY

EXHIBIT H

CONTAINS HIGHLY CONFIDENTIAL INFORMATION IN ITS ENTIRETY

EXHIBIT I

CONTAINS HIGHLY CONFIDENTIAL INFORMATION IN ITS ENTIRETY