Exhibit No.	_____
Issue:	Application for ETC Designation
Witness:	Glenn H. Brown
Sponsoring Party:	Spectra Communications Group, LLC d/b/a CenturyTel and CenturyTel of Missouri, LLC
Type of Exhibit:	Rebuttal Testimony
Case No:	TO-2006-0172
Date:	March 1, 2006

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Application of	)	
Missouri RSA No. 5 Partnership for	)	
Designation as a Telecommunications Company	)	Case No. TO-2006-0172
Carrier Eligible for Federal Universal Service	)	
Support Pursuant to § 254 of the	)	
Telecommunications Act of 1996	)	

REBUTTAL TESTIMONY OF GLENN H. BROWN

ON BEHALF OF SPECTRA COMMUNICATIONS GROUP, LLC, d/b/a CENTURYTEL

AND CENTURYTEL OF MISSOURI, LLC

March 1, 2006

****Denotes Information Deemed to be Highly Confidential by Applicant MO 5****

NP

Q. Please state your name and business address.

A. My name is Glenn H. Brown, and my business address is 55 Cathedral Rock Drive, Suite 32, Sedona, Arizona 86351.

Q. Please summarize your current employment and prior business experience.

A. I am President of McLean & Brown, a telecommunications consulting firm specializing in universal service issues. Prior to joining McLean & Brown in 1998, I worked for U S WEST for 28 years, during which time I held a number of senior management positions in the regulatory and public policy area. I have testified before numerous state regulatory commissions, the Federal Communications Commission ("FCC") and the United States Congress on a wide variety of telecommunications costing, pricing and regulatory issues. My last six years with U S WEST were spent in Washington, DC, where I was intimately involved in the implementation of the Telecommunications Act of 1996 ("the 1996 Act" or "the Act"), with particular emphasis on universal service issues.

Q. Please summarize your educational experience.

A. I have a Bachelor of Science in Industrial Engineering from Lehigh University, and an MBA from the University of Colorado. Both of my degree programs focused on computer modeling technology and applications.

Q. Please describe your experience with universal service issues.

A. I have been active in almost every major universal service proceeding before the FCC since the passage of the 1996 Act. In 1998, the FCC appointed the Rural Task Force ("RTF") to develop policy recommendations for rural telecommunications carriers. While not a member of the RTF, I attended almost all of its meetings, and assisted it in

both analytical matters and in the preparation and drafting of several white papers. In my current position I provide advice and assistance to small and mid-size telecommunications companies regarding universal service and other regulatory and pricing issues before federal and state regulatory bodies.

Q. On whose behalf are you presenting testimony?

A. I am presenting testimony on behalf of Spectra Communications Group, LLC d/b/a CenturyTel ("Spectra") and CenturyTel of Missouri, LLC, ("CenturyTel"). Spectra is comprised of one study area in Missouri. CenturyTel is comprised of four distinct study areas: Central, Belle-Herman, Southern and Southwest. Spectra is a rural telephone company under the terms of the 1996 Act.

CenturyTel's Belle-Hermann and Southern study areas also are classified as rural. CenturyTel's Central and Southwest study areas are non-rural under the terms of the 1996 Act. MO 5 has requested ETC status in portions of the rural Spectra and non-rural CenturyTel Central study areas.

INTRODUCTION AND SUMMARY

Q. What are the purposes of your testimony?

A. The purposes of my testimony are:

1. To discuss the important responsibilities of the Missouri Public Service Commission ("Commission") under the 1996 Act in regards to implementation of the federal universal service program. Under the Act, and FCC rules, the Commission may approve additional Eligible Telecommunications Carriers ("ETCs") in areas already being served by an

ETC only if the Commission determines that such designation is in the public interest.

2. To discuss the evolution of the FCC's guidelines regarding public interest standards for the designation of multiple ETCs in rural telephone company service areas.

3. To explain the public interest and minimum ETC designation criteria articulated by the FCC in their March 17, 2005 Order[1], and explain why it is important that the Commission utilize these minimum criteria in developing its own ETC approval rules and procedures.

4. To evaluate Missouri RSA No. 5's ("MO 5's") application and testimony in this proceeding against the FCC's minimum designation criteria and, based upon this review, offer my opinion on whether approval of MO 5's application in this proceeding would pass the public interest test.

5. To reply to the statements made by MO 5 in its Application for ETC status, as well as the direct testimony of Jonathan Reeves, James Simon and Kathryn Zentgraf, and information provided in response to subsequent Data Requests.

[1] *In the Matter of Federal-State Joint Board on Universal Service,* CC Docket No. 96-45, Report and Order, 20 FCC Rcd 6371, released March 17, 2005 ("*ETC Designation Order"*).

Q. What are the critical issues that the Commission must address in this proceeding?

A. Among the issues that the Commission must address in this proceeding are the following:

- The Commission must develop rigorous eligibility standards for ETC designation and apply them in a uniform manner to all prospective ETC applications.
- The Commission will need to determine in this proceeding how it will handle requests from multiple wireless providers for ETC designation in the same wire center area. For example, all of the Spectra wire centers for which MO 5 has requested ETC designation have also have pending ETC designation requests from US Cellular in Case No. TO-2005-0384.
- The Commission necessarily must evaluate MO 5's Application against the ETC eligibility and designation criteria it ultimately will establish.

Q. Could you please summarize the conclusions that you have reached with respect to MO 5's Application?

A. Based on my review, I have reached the following conclusions:

1. The criteria described by the FCC in the *ETC Designation Order* form a solid basis from which the Commission can develop its own rules and procedures for determining when designating an additional ETC is in the public interest.
2. Until the Commission finalizes its rules regarding ETC designation criteria and procedures, it would be premature to designate any individual wireless carrier as an ETC for receipt of federal high-cost support.

3. The Commission must exercise great care when evaluating requests from multiple wireless carriers for ETC status for the same wire center areas. The Commission must assure that the incremental public benefits from designating an additional ETC outweigh the incremental public costs that designating an additional carrier for receipt of high-cost support will create.

4. While the Application of MO 5 for ETC status meets many of the criteria identified in the *ETC Designation Order*, and certainly represents a more complete showing than that made by US Cellular in Case No. TO-2005-0384,[2] it still falls short of meeting all of the relevant criteria for establishing that the grant of this Application would be in the public interest:

   a. The Application does not, with specificity, demonstrate how universal service high-cost support will be used to improve coverage, service quality or capacity on a wire center-by-wire center basis throughout the ETC service area.

   b. The Application does not contain detailed maps indicating the coverage area before and after improvements and existing tower site locations.

   c. To the extent that coverage maps are provided they do not show how consumers in rural and high-cost areas of the ETC service area will receive service and signal quality comparable to that available in more urban areas.

[2] I was a witness for CenturyTel and Spectra in Case No. TO-0384, and presented extensive testimony and evidence regarding the deficiencies of US Cellular's filing as related to the criteria in the *ETC Designation Order*

d. The Application does not identify those wire centers where it believes service improvements are not needed, its basis for this determination, and how funding will otherwise be used to further the provision of supported services in those areas.

COMMISSION RESPONSIBILITIES UNDER THE 1996 ACT.

Q. What are the key sections of the 1996 Act and the FCC rules that deal with universal service and the public interest test for designating multiple ETCs?

A. Section 214(e) of the 1996 Act, 47 U.S.C. § 214(e), deals with the designation of multiple ETCs; 47 CFR 54.201 contains the FCC's corresponding regulations. 47 U.S.C. Section 214(e)(2) states that, to be eligible for ETC status, a carrier must offer the defined universal service elements (the FCC rules currently define nine elements) throughout the service area for which the designation is received, and advertise the availability of such services in media of general distribution. Section 214(e)(2) states that, consistent with the public interest, convenience and necessity, the Commission *may*, for rural telephone companies, and *shall*, for non-rural companies, designate more than one ETC. It further states that, "before designating an additional [ETC] for an area served by a rural telephone company, the State commission shall find that the designation is in the public interest." FCC Rule 54.201 contains very similar language.

Q. Does the 1996 Act or the FCC regulations say how this public interest determination should be made?

A. While neither the 1996 Act nor the FCC rules provide specific guidance in conducting the public interest test, over the past five years the FCC has issued a series of decisions that have provided an evolving set of guidelines regarding how it believes that

the public interest determination should be made. In looking back over this time period there have been three distinct phases in the evolution of the FCC's thinking. The specific orders that defined these phases, and some of the key characteristics of the public interest criteria utilized during each phase, are as follows:

1. **The *Wyoming* and *Alabama* Orders;**

   - December, 2000 through January, 2004;
   - Competition defines the public interest;
   - Designation of multiple ETCs would advance competition in high-cost rural areas, and therefore is in the public interest; and
   - Although not formally stated, burden was on the wireline incumbent to prove that the ETC designation was not in the public interest.

2. **The *Virginia Cellular* Order:**

   - January, 2004 through March, 2005;
   - Competition, alone, was not sufficient to satisfy the public interest test;
   - A more stringent, public interest test was necessary due to rapid growth in support to competitive ETCs;
   - A fact-specific analysis was required to demonstrate that the benefits of designating multiple ETCs outweighed the costs of supporting multiple networks;
   - The competitive ETC must demonstrate its commitment and ability to provide the supported services throughout the designated service area within a reasonable time frame; and
   - It was clearly stated that the burden is on the ETC applicant to prove that its designation as an ETC in the rural telephone company is in the public interest.

3. **The March 17, 2005 *ETC Designation* Order**

   - This Order was issued in response to a Recommended Decision by the Federal-State Joint Board on Universal Service released February 27, 2004;

- The Order provides that in satisfying its burden of proof, the ETC applicant must:
  - Provide a five-year plan demonstrating how high-cost universal service support will be used to improve its coverage, service quality or capacity in every wire center for which it seeks designation and expects to receive universal service support;
  - Demonstrate its ability to remain functional in emergency situations;
  - Demonstrate that it will satisfy consumer protection and service quality standards;
  - Offer local usage plans comparable to those offered by the ILEC in the areas for which it seeks designation; and
  - Acknowledge that it may be required to provide equal access if all other ETCs in the designated service area relinquish their designation.

Q. Could you generally describe the requirements established in the *Wyoming* and *Alabama* Orders, and the impact that these Orders had on the designation of competitive ETCs at the state and federal level?

A. One of the first competitive ETC designations issued by the FCC was in the case of Western Wireless in the state of Wyoming.[3] In approving this designation the FCC stated its expectation that:

> Wyoming consumers will benefit from the provision of competitive service and new technologies in high-cost and rural areas. An important goal of the Act is to open local telecommunications markets to competition. Designation of competitive ETCs promotes competition and benefits consumers in rural and high-cost areas by increasing customer choice, innovative services, and new technologies.

As I will discuss shortly, the actual experience in Wyoming since this order was issued has not worked out exactly as the FCC had initially expected.

[3] *In the matter of Federal-State Joint Board on Universal Service, Western Wireless Petition for Designation as an Eligible Telecommunications Carrier in the State of Wyoming*, CC Docket No. 96-45, DA 00-2896, released December 26, 2000 ("Wyoming Order").

Similar to the Wyoming Order, the Order in the application of RCC Holdings for ETC status in Alabama[4] found that designating RCC as an ETC "serves the public interest by promoting competition and the provision of new technologies to consumers in high-cost and rural areas."[5] The Order dismisses concerns raised by parties regarding the impact of multiple ETC designations on the size of the fund by stating "we find that these issues reach beyond the scope of this Order, which designates a particular carrier as an ETC."[6] The Alabama and Wyoming Orders became the templates for many of the early state ETC decisions. Since the public interest standards were very low, virtually all of these designation requests were approved.

Q. How did the *Virginia Cellular* Order change the guidelines for the ETC designation process?

A. The *Virginia Cellular* Order[7] makes clear that "competition, by itself, is not sufficient to satisfy the public interest test in rural areas".[8] The FCC concluded that "the balancing of benefits and costs is a fact-specific exercise"[9], and that "the burden of proof [is] upon the ETC applicant."[10] The analysis must focus on "the benefits of *increased* competitive choice [and] the impact of *multiple* designations on the universal service fund."[11] Further, the ETC applicant has an "obligation to serve the designated service

[4] *In the Matter of Federal-State Joint Board on Universal Servicce, RCC Holdings, Inc. Petition for Designation as an Eligible Telecommunications Carrier Throughout its Licensed Service Area in the State of Alabama,* CC Docket No. 96-45, DA 02-3181, released November 27, 2002 ("Alabama Order").
[5] *Id* at paragraph 1.
[6] *Id* at paragraph 3.
[7] *In the Matter of Federal-State Joint Board on Universal Service, Virginia Cellular, LLC Petition for Designation as an Eligible Telecommunications Carrier In the Commonwealth of Virginia* CC Docket No. 96-45, FCC 03-338, released January 22, 2004. (Virginia Cellular Order)
[8] *Id* at paragraph 4.
[9] *Id*. at paragraph 28.
[10] *Id*. at paragraph 26.
[11] *Id,* at paragraph 4 (emphasis added).

area within a reasonable time frame,"[12] and the competitive ETC must "submit records and documentation on an annual basis detailing its progress towards meeting its build-out plans in the service areas it is designated as an ETC."[13] Based upon these more rigorous standards, a number of states began to reject applications where an ETC applicant did not meet the burden of establishing that its designation would be in the public interest.

Q. How did the FCC's March 17, 2005 *ETC Designation Order* expand upon the public interest criteria established in the Virginia Cellular Order?

A. In the *ETC Designation Order*, the FCC adopted mandatory minimum requirements for a telecommunications carrier to be designated as an ETC in proceedings where the FCC has jurisdiction to make this designation. The Order states that "these requirements create a more rigorous ETC designation process [and that] their application by [the FCC] *and state commissions* will improve the long term sustainability of the universal service fund."[14] The FCC describes these standards as follows:

> Specifically, in considering whether a common carrier has satisfied its burden of proof necessary to obtain ETC designation, we require that the applicant:
> 1. Provide a five-year plan demonstrating how high-cost universal service support will be used to improve its coverage, service quality or capacity in every wire center for which it seeks designation and expects to receive universal service support;
> 2. Demonstrate its ability to remain functional in emergency situations;
> 3. Demonstrate that it will satisfy consumer protection and service quality standards;
> 4. Offer local usage plans comparable to those offered by the incumbent local exchange carrier (LEC) in the areas for which it seeks designation; and
> 5. Acknowledge that it may be required to provide equal access if all other ETCs in the designated service area relinquish their designations pursuant to section 214(e)(4) of the Act.

[12] *Id*. at paragraph 28.
[13] *Id*. at paragraph 46.
[14] *Report and Order,* CC Docket No. 96-45, FCC 05-46, released March 17, 2005, at paragraph 2 (emphasis added).

Q. Does the ETC Designation Order address the applicability of these mandatory minimum requirements on state Commissions?

A. While the 1996 Act explicitly grants to this Commission the responsibility for making the public interest finding, at several places in the *ETC Desgination Order* the FCC provides specific encouragement for state commission's to adopt these same standards as minimum standards in their state ETC designation proceedings:

> We believe that application of these additional requirements by the [FCC] *and state commissions* will allow for a more predictable ETC designation process.[15]
>
> We encourage state commissions to require all ETC applicants over which they have jurisdiction to meet the same conditions and to conduct the same public interest analysis outlined in this Report and Order.[16]

Q. Has MO 5 commented on the applicability of the FCC's *ETC Desgination Order* in this proceeding?

A. Yes. On page 29 of its Application, MO 5 states "The Commission may choose to evaluate the MO 5 Application using the guidance recently announced in the FCC Guidelines Order."

Q. Why did the FCC provide the specific requirements and guidance for ETC designation that it did in its *ETC Designation Order*?

A. I believe that there are several reasons that the FCC did this. The first is to address the rapid and explosive growth in the amount of funding that is going to competitive ETCs, particularly wireless ETCs. The language quoted earlier from paragraph 2 of the *ETC Designation Order* highlights the FCC's concern over the

[15] *ETC Designation Order* at paragraph 1 (emphasis added).
[16] *Id* at paragraph 58.

"sustainability of the universal service fund." The following chart illustrates the significant growth that has occurred recently in funding going to competitive ETCs.

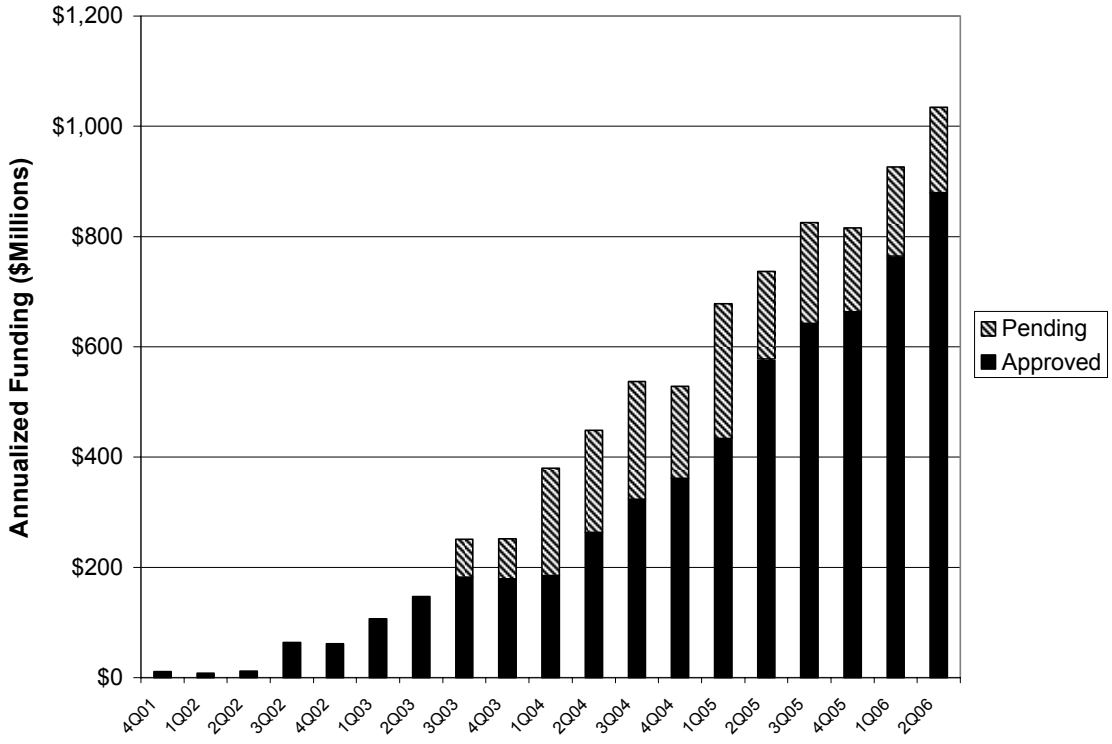

Chart I –CETC Funding

A second factor that could have influenced the adoption of more specific guidelines for the use of universal service funding is the need for greater assurance and public accountability that funds are being used for their intended purpose. The purpose of universal service funding is to assure that consumers in "rural, insular and high-cost" areas have services comparable to those available in urban areas. It is only logical, then, that universal service funds provided to wireless carriers be used to improve coverage throughout the service area and build new towers to expand signal coverage into remote areas that lack sufficient coverage, or that are not covered at all. In one of the earliest ETC decisions in the case of Western Wireless in Wyoming, that Order (cited previously)

described the wonderful services and new technology that would come to rural Wyoming customers with this ETC designation.[17] It is instructive to look back and see exactly what happened in Wyoming after that Order was issued. USAC reports indicate that Western Wireless received $6.2 million of high-cost support in 2003, and $8.2 million in 2004 in Wyoming.[18] While Western Wireless received over $14 million, it added no new towers to expand its service footprint into rural and high-cost areas of Wyoming.[19] Where did the money go? It is possible that it went to upgrade services and facilities in the "urban" areas of Wyoming. It is also possible that it was used to sweeten the balance sheet to make the company a more attractive acquisition target. The point is, we have no way to know where the money went, but it is clear that it did not go to improve signal quality in remote and rural areas of Wyoming. By requiring a prospective applicant to clearly state where and how it intends to use high cost funding as a condition of its ETC application, and requiring the applicant to demonstrate that funds will be used to improve signal quality in every wire center for which it receives funding, the Commission will be in a better position to, as Commissioner Copps stated, "ensure that ETC funding truly is being used to preserve and advance universal service."[20]

Q. On page 12 of her testimony, Ms. Zentgraf states "While there is concern

[17] Both the MO 5 Application (at page 17) and the testimony of Ms. Zentgraf (at page 19) cite the Wyoming order as supporting why MO 5's designation as an ETC would be in the public interest.
[18] USAC reports HC01 for 1Q03 through4Q04.
[19] This conclusion was reached after a thorough review of records in the FCC tower registration and antenna licensing data bases.
[20] Much of the problem related to the need for specific build-out plans stems from the requirement under the current rules that the competitive ETC receives the same per-line support as the incumbent wireline carrier, regardless of their actual costs. In my opinion, the public interest would be better served if the competitive ETC received support for its own costs of serving high-cost areas, in much the same way that wireline carriers only receive support after they have made the investment to serve high-cost areas. Since a change such as this is well beyond the scope of this proceeding, it is incumbent on this Commission to

that the current practice could threaten the long-term viability of the USF, to date the evidence suggests that wireless ETC designations have not had an adverse impact on the USF." Do you agree with this assessment?

A. No, the facts tell exactly the opposite story. Chart I shows the explosive trend in the growth of support for competitive ETCs. From the second quarter of 2003 to the second quarter of 2006, high cost universal service support to CETC's has increased from $147 million to over $1 billion. Over the same time period, high-cost universal service support to incumbent carriers has remained essentially constant at approximately $3.2 billion.[21] Over this the same two year time period, the universal service contribution factor has increased from 9.1% of interstate and international end-user revenues to 10.2%. It is growth such as this that has caused the FCC to develop more stringent standards for ETC designation.

Q. How do the mandatory minimum requirements in the FCC's *ETC Designation Order* compare with the draft ETC designation rules that have been prepared by the Commission?

A. I have reviewed the draft rule 4 CSR 240-3.570 as originally published in the Missouri Register, as well as the most recently proposed modifications to this draft rule, and find them to be generally similar to the requirements contained in the FCC's *ETC Designation Order*. In several areas the draft rule appears to go even farther than the

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assure that whatever support that MO 5 might receive if designated as an ETC is spent for its intended purposes.

[21] The actual numbers for ILEC support is $3,151 million for 2Q03, and $3,175 for 2Q06. This equates to a 0.7% growth in ILEC support over this two year period, versus a 700% growth in CETC support. The source for all data is USAC reports HC01.

FCC requirements in requesting more detail regarding the five year build-out plan[22], and providing more specific consumer protection provisions. As I stated at the beginning of my testimony, I would strongly encourage the Commission to adopt rigorous standards for ETC designation and then apply them in a uniform manner to all ETC applications. In my opinion, the Commission appears to be generally heading in the right direction, and until the Commission has finalized and adopted its new rules, it should refrain from making any specific ETC designations if it wants to avoid possible conflicts with its new ETC rules.

THE PUBLIC INTEREST ANALYSIS

Q. As the FCC's ETC designation standards have evolved, have the way in which state commissions have been making ETC designation decisions changed as well?

A. Yes. The early state-level ETC designations tended to follow the reasoning in the *Wyoming* and *Alabama* decisions that competition was the primary public interest factor, and that ETC applications should be approved. Beginning in late 2003, and then following the release of the FCC's *Virginia Cellular* Order, a number of states, along with the FCC, began looking beyond the mere technical compliance with the requirements of Section 214(e) to determine how the ETC applicant intends to use high-cost support, and how the grant of ETC status will sufficiently improve the services that the public receives to offset the public costs that it will create. For example, on December 1, 2003 (well before the issuance of the *Virginia Cellular* Order) the

[22] One modification currently being proposed to the originally published ETC rule, however, substitutes a two-year build-out plan for the five-year build-out plan. No only is this contrary to the FCC's minimum

Minnesota Public Utilities Commission issued an order denying the application of Nextel for ETC status. In that order, the Minnesota Commission states:

> The Company presented no plan for expanding its service capabilities and simply stated that receipt of the universal service funding would change (in unspecified ways) the economic model that might (no guarantee or analysis to show reasonable likelihood) make expansion (of unspecified extent) into some (unspecified) areas possible. The extent to which the economic model would change was not specified. No guarantee of expansion or analysis was provided to demonstrate the likelihood of expansion. No areas were identified for expansion. …In these circumstances and based on this record, therefore, the Commission finds that Nextel has failed to demonstrate that it is willing and able to serve "throughout the service area for which the designation is received…" as required of an ETC by 47 U.S.C. § 214(e)(1).[23]

In August of 2004, Western Wireless was denied ETC status in the state of Nevada in the rural telephone company study areas that it had requested. In its Order the Nevada Commission stated:

> [T]he primary question before the Commission is whether Western Wireless' designation as and ETC is in the public interest, regarding the rural telephone companies, and consistent with the public interest. The Commission finds that Western Wireless has not met its burden for showing that its request for designation as an ETC is in the public interest. The Commission must evaluate the facts presented in each application for designation as an ETC, weighing the costs and benefits of granting ETC status in the requested area. The FCC has indicated that the public interest analysis for designation as an ETC should be rigorous and stringent. (Virginia Cellular at ¶4; Highland Cellular at ¶21.) Western Wireless' evidence did not persuade the Commission that designating the Company as an ETC would be in the public interest.[24]

Similarly, in an Order issued August 5, 2004, this Commission applied the fact-specific tests contained in the Virginia Cellular and Highland Cellular cases and

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standards, in my opinion it does not provide this Commission with sufficient information and assurance as to a prospective ETC's infrastructure commitments.

[23] In the matter of NPCR, Inc. d/b/a Nextel Partners for Designation as an Eligible Telecommunications Carrier Under 47 U.S.C. § 214(e)(2), Docket No. PT-6200/M-03-647, Issued December 1, 2003.

[24] *Application of WWC License L.L.C., d/b/a CellularOne, for redefinition of its service area as a designated Eligible Telecommunications Carrier, Docket No. 04-3030, August 4, 2004.* at pages 12 - 13.

concluded that the designation of Mid-Missouri Cellular as an ETC was not in the public interest.[25]

Q. If the Commission were to conclude that there should only be one ETC in certain study areas, would this mean that consumers in those areas would not have competitive choices for telecomunications providers?

A. Absolutely not. As I will illustrate shortly using MO 5's current network, wireless carriers have built their networks in cities and towns and along major highways. These are areas where customer density is high, and costs are low. Customers in these areas are already subscribing to MO 5's service. Indeed, MO 5 is asking for high-cost support for these low-cost customers as soon as it gets ETC designation. The only customers really in question are those in the remote, high-cost portions of the study area where MO 5's network currently does not reach, or where existing signal coverage is poor. Many of these customers likely have MO 5 service also, for use when they are on the road, or when they are in town shopping, working or going to school. It is only when a new ETC invests high-cost funds to build facilities into the more remote and higher-cost areas, however, that consumers will begin to see benefits through larger areas to enjoy their mobile service capabilities, and the ability to use their wireless services at home. Thus, unless a prospective ETC applicant is willing to commit to formal plans to construct facilities throughout the proposed service area, the benefits of their ETC designation will be greatly diminished. Furthermore, to the extent that the ETC designation dilutes the finite pool of high-cost funds to the point where no carrier can

[25] *In the Matter of the Application of Missouri RSA NO. 7 Limited Partnership, d/b/a Mid-Missouri Cellular, for Designation as a Telecommunications Company Carrier Eligible for Federal Universal Service Support Pursuant to Section 254 of the Telecommunications Act of 1996,* Case No. TO-2003-0531.

viably serve as Carrier of Last Resort, then consumers will be harmed, and the public costs will be greatly increased.

Q. Could you summarize your recommendations on the factors the Commission should consider as it conducts its public interest analysis?

A. The Commission must ensure that scarce public funds are spent wisely and for the purposes for which they were intended. It has an obligation to ensure provider accountability. Thus, the Commission should approve additional ETCs in rural areas only when the increased public benefits that will come from supporting multiple carriers can be shown to clearly exceed the costs that are created by supporting multiple networks. The minimum criteria outlined by the FCC in its *ETC Designation Order* can and should be applied as the Commission develops its own ETC designation rules and subsequently determines if MO 5's application for ETC status is in the public interest.

COST/BENEFIT ANALYSIS

Q. What are some of the benefits that might be created by the designation of a additional ETCs?

A. Benefits that might be created could include investments in new towers and facilities to bring mobile communications services to currently unserved areas, wider service areas over which consumers could use their mobile phones, new choices or service upgrades for consumers, lower prices, higher quality and potential competitive responses from other service providers.

Q. What are some of the costs that would be created?

A. The most easily identified cost would be the cost of providing support to the new ETC. Where multiple competing wireless carriers serve the same market, there will be

significantly increased cost, as these carriers, to ensure they remain on a competitive footing, will have no choice other than to request ETC status as well.

In very sparsely populated areas there could also be increased public costs due to the loss in network efficiency caused by multiple providers serving in a less efficient manner than a single provider could serve. These higher costs could lead to significant harms to consumers if finite universal service support resources are spread so thinly that no carrier (wireline or wireless) can justify the investment to viably function as a Carrier of Last Resort. Later in my testimony I will demonstrate how providing support to multiple carriers – wireless or wireline – will increase the cost of providing universal service in the most remote and sparsely populated areas

Q. How much will high-cost support increase if MO 5 is granted ETC status in all of the study areas for which it has requested ETC designation?

A. On page 16 of her testimony, Ms. Zentgraf states that MO 5 stands to receive approximately $1.5 million per year if their request for ETC status in all of the requested study areas is granted.

Q If MO 5 is designated as an ETC in this proceeding, would $1.5 million per year be the total cost to the USF for additional support payments?

A. No. There are at least six other wireless carriers that currently provide service in the areas where MO 5 seeks ETC designation. If the Commission grants ETC status to MO 5, it is likely that other wireless carriers will also apply for and receive approval for ETC status as well. The most recent public data available from the FCC indicates that in the state of Missouri there were 3.51 million wireline loops, and 3.11 million wireless

handsets at the end of 2004.[26] This yields a wireless handset to wireline loop ratio of 89%. Publicly available data from USAC indicates that as of the third quarter of 2005, ILECs in the state of Missouri were receiving universal service support at a rate of $91.1 million per year.[27] Thus, if all wireless carriers in the state of Missouri were to receive ETC status, the overall draw on the federal USF from Missouri wireless carriers could go up by as much as $81.1 million per year ($91.1 x 0.89 = $81.1).

Q. You also mentioned that in sparsely populated rural areas supporting multiple carriers can also increase the cost of serving all customers. Could you explain why this is so?

A Proxy cost modeling work done at the FCC in the late 1990s established a strong correlation between customer density and the cost of providing basic telephone service. The following Chart II, relying on data from the Benchmark Cost Proxy Model 3.0 for all ILECs in the state of Missouri, shows the relationship of subscriber density, measured in households per square mile, to the monthly cost of providing basic telephone service.

[26] Wireless data from *Local Competition Report*, FCC, July, 2005, Table 13,Wireline data from USAC Report HC05, 4Q04.
[27] USAC Report HC01, third quarter 2004.

Households per Square Mile	All Missouri ILECs
0 to 5	$ 130.72
5 to 100	$ 54.05
100 to 200	$ 31.42
200 to 650	$ 27.26
650 to 850	$ 25.38
850 to 2550	$ 23.36
2550 to 5000	$ 22.16
5000 to 10,000	$ 20.95
> 10,000	$ 18.47

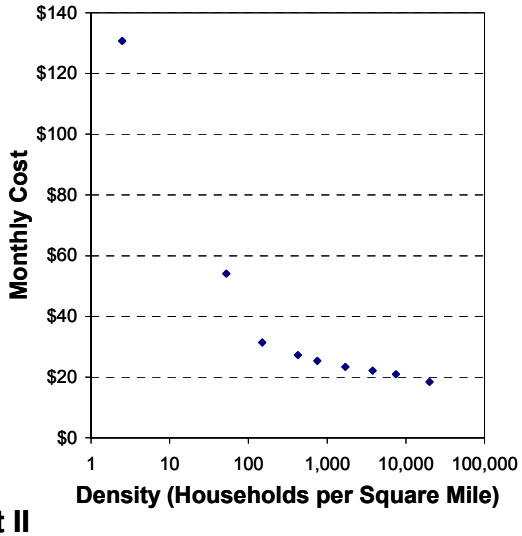

Chart II

Notice that at household densities of 100 households per square mile and greater, the per-line cost of basic telephone service is quite low. At densities of less than 100 households per square mile, costs increase dramatically and exponentially, with areas with density of 5 households per square mile or less costing well in excess of $100 per line per month.

Q. What does this have to do with MO 5's cost of providing service?

A. While the technologies of wireline and wireless networks are very different, they both experience high levels of fixed cost, or costs that do not necessarily vary with the number of customers served, which make the cost of providing service very sensitive to subscriber density. A good example of this type of fixed cost in a wireline network is a trench for the placement of distribution cable. Assume for discussion purposes that a trench costs $2 per foot to dig, place and fill. In a densely populated area where a trench might support 500 lines, the cost of this trench would be $0.004 per line per foot. In a sparsely populated area where the trench only supports 10 lines, the cost per line would be $0.20. In a very sparsely populated area with only 2 lines the per-line cost would be

$1, and for the customer at the very end of the line, the cost of the length of trench becomes $2 per line per foot. While not a perfect analogy, this shows why the cost to density curve shown above identifies costs increasing geometrically as population density decreases.

In a wireless network, a major fixed cost is the tower and associated radio equipment. A tower and associated equipment cover a given "footprint", or area where acceptable wireless coverage can be received from that tower. The per-customer cost of providing service from that tower is very sensitive to the number of customers within that footprint. In a densely populated or heavily traveled area where thousands of customers may be within that footprint, the cost per-customer is low. In sparsely populated or less traveled areas, the cost per customer becomes increasingly high, and would follow the same exponential relationship of increasing cost to decreasing density. As a result of this, wireless providers have tended to build their networks and provide conventional cellular service in towns and along major highways where subscriber density is high and per-customer costs are low. If two wireless carriers seek to serve the same sparsely populated area, the effective customer density for each carrier becomes even lower, and the cost for both carriers to expand to serve throughout such areas becomes even higher.

Q. Can you explain how can costs go up for all customers when multiple carriers serve sparsely populated areas?

A. As I described previously, both wireline and wireless networks are comprised of many fixed cost investments, and therefore the cost of providing service is highly dependent on the density of customers in a particular area. The following Chart III illustrates how when multiple providers serve the same sparsely populated area, the cost

for both providers increases. As I mentioned earlier, this relationship is equally valid if two wireless providers are serving the same sparsely populated area.

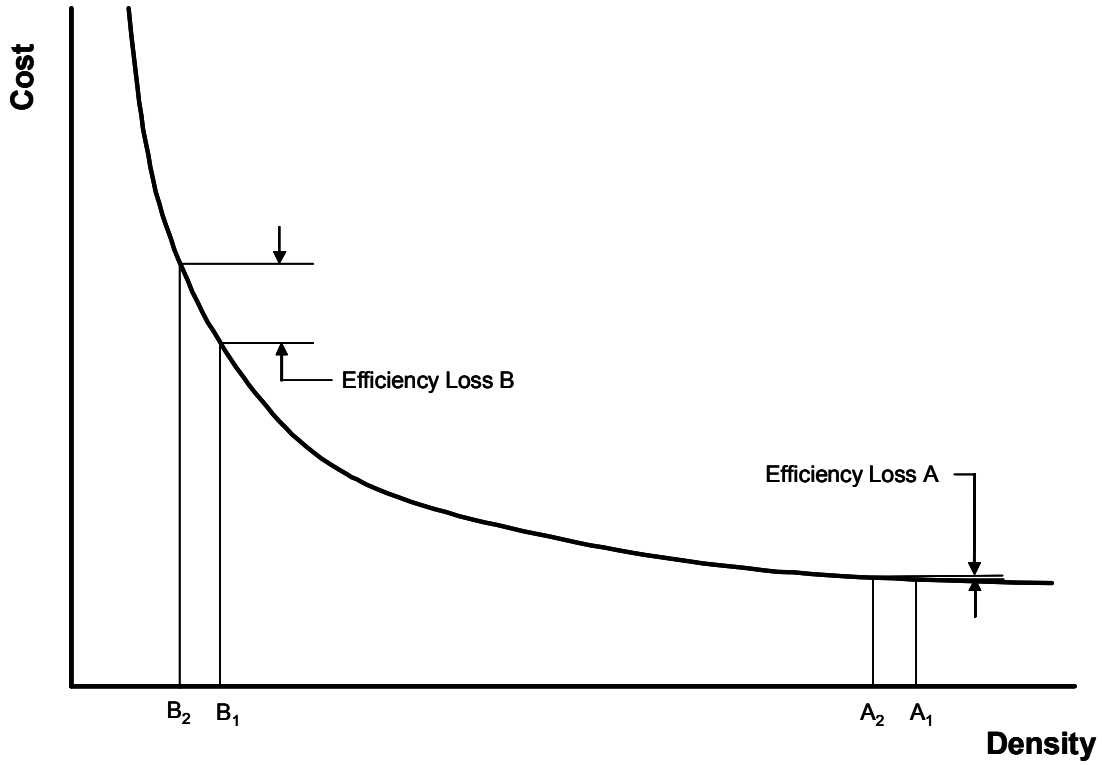

Chart III

When an additional carrier enters a service area and captures customers from the incumbent(s), the physical area of the service territory is unchanged, but the number of customers served is less. This will have the impact of reducing the average density in terms of households per square mile and increasing the cost per customer for both carriers. The impact that this reduction in density will have on the average cost of serving customers is highly dependent on the density of the serving area. This graph shows the cost impact for two hypothetical scenarios. Company A, shown on the right side of the chart, serves a densely populated area with relatively low costs. If the entry of an additional carrier results in a reduction in subscriber density from A_1 to A_2, the resulting efficiency loss is negligible. On the other hand, Company B, shown on the left

side of the chart, serves a relatively sparsely populated area. Notice that an equivalent reduction in density from B_1 to B_2 results in a significant and much larger loss of efficiency due to the nature of the density/cost relationship. Given the exponential increase in cost with decreasing density, the lower the initial density level, the higher will be the efficiency loss with the introduction of an additional carrier. Thus, as population density decreases below 100 households per square mile, the level of public benefit necessary to justify the corresponding increase in public costs becomes larger than would be the case in a more densely populated area. In the most extremely sparse areas, very significant additional public benefit would be necessary to justify the substantial increase in public costs that would be created by providing public support to multiple carriers.

Q. Has the phenomenon of increasing costs when multiple ETCs serve sparsely populated rural areas been recognized as a problem?

A. Yes. In May of 2001, the FCC released its MAG Order that eliminated the Carrier Common Line charge for rate-of-return carriers and replaced it with an explicit and portable Interstate Common Line Support (ICLS) mechanism. In his separate statement issued with this Order, FCC Chairman (then Commissioner) Kevin Martin said:

"I also note that I have some concerns with the Commission's policy – adopted long before this Order – of using universal service support as a means of creating "competition" in high cost areas. I am hesitant to subsidize multiple competitors to serve areas in which costs are prohibitively expensive for even one carrier. This policy may make it difficult for any one carrier to achieve the economies of scale necessary to serve all of the customers in a rural area, leading to inefficient and/or stranded investment and a ballooning universal service fund."[28]

Q. Does this economic relationship exist when two or more wireless ETCs are granted ETC status to serve sparsely populated rural areas.

A. Yes. If multiple wireless carriers seek to build-out their networks into the same sparsely populated areas, the effective customer density for each carrier decreases, and the costs for each carrier to serve throughout the area and meet their Carrier of Last Resort obligations increase geometrically. Under this scenario, one of two things could happen. The first, and more likely, possibility would be that neither carrier is capable of extending its network to provide high-quality service throughout the service area, and thus are unable to meet their obligations as an ETCs or to effectively serve as a Carriers of Last Resort. The second possibility is that one or more of these carriers becomes financially insolvent, resulting in stranded investment and waste of scarce public support dollars.

BENEFITS

Q. What benefits has MO 5 identified that would result from its designation as an ETC for the receipt of high-cost universal service?

[28] 2nd R&O and FNPRM in CC Docket No. 00-256, 15th R&O in CC Docket No. 96-45, and R&O in CC Docket Nos. 98-77 and 98-166, Released November 8, 2001, *Separate Statement of Commissioner Kevin*

A. Throughout its Application and testimony, MO 5 offers its assessment of the benefits that this designation will bring. Among these benefits are:

- Increased competition;
- Increased consumer choice and service quality;
- Larger local calling area;
- The benefits of mobility; and
- Competitive response from affected ILECs.

Q. What is your reaction to the purported benefits that MO 5 describes?

A. First of all, these purported benefits consist totally of generalized statements regarding the generic benefits of competition, and as I have stated previously, MO 5 is already competing in these areas today. The real question before this Commission is what *additional* competition and *increased* benefits will come from designating MO 5 as an ETC in the Spectra and CenturyTel study areas. Second, to read MO 5's statements you would think that MO 5 currently does not compete in these markets, and only if they are granted ETC designation will there be competition in rural areas in the state of Missouri. Nothing could be further from the truth. Wireless carriers, including MO 5, have built facilities throughout rural America, including rural areas in Missouri. Wireless carriers have built their networks in cities and towns and along major highways where customer concentration is high and costs are low.

Q. Can you provide an illustration of MO 5's network in the state of Missouri?

A. Schedule GHB-1 is a map of the state of Missouri that shows MO 5's proposed ETC service area, as well as the location of CenturyTel and Spectra's wire center

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J. Martin. Commissioner Martin reaffirms this statement in his separate statement concerning the Joint Board Recommended Decision.

boundaries for which MO 5 has requested ETC status. GHB-1 also is color-coded to indicate population density. Major highways within the state are also shown for reference. Schedule GHB-2, in addition to the information shown on Schedule GHB-1, shows the location of MO 5's current towers as obtained from publicly available data sources[29] Exhibit GHB-3HC also shows the location of the 17 towers that MO 5 has indicated that it plans to construct if granted ETC status in this proceeding. Since MO 5 has declared the information regarding its new tower locations as well as the operating parameters and signal coverage of its existing and new towers to be Highly Confidential, Schedule GHB-3HC, and the remaining Schedule in my testimony that deals with the signal coverage of MO 5's network is likewise Highly Confidential.

Q. How can the coverage area and signal quality of MO 5's network be determined?

A. The best way to determine network coverage is through what is called a "propagation analysis". In this type of analysis, numerous factors such as the transmission characteristics of the cellular tower and the end user's handset or receiver, the nature of the radio spectrum used, as well as the topographical contour of the area in question all have an impact on the area over which consumers can receive varying levels of performance from the wireless network.

Q. How do topographical features influence network performance?

A. Radio waves can't "see through" hills or mountains. Most of us have had the experience of talking on a mobile phone and losing the connection as we went down into

[29] The location of a wireless carrier's cellular towers can be obtained from publicly available data on the FCC's Universal Licensing System (ULS) data base available at www.fcc.gov.

a valley or went behind a hill, building or some other obstruction. Propagation studies take terrain data from the U.S. Geological Survey, as well as other factors related to the wireless network to predict areas where coverage will be good, marginal or non-existent.

Q. How do the characteristics of the cellular tower influence network performance?

A. Factors such as the height of the tower and the electromagnetic power of the radio transmitter and the characteristics of the antenna have a significant impact on the area that a tower can cover. Generally, the higher the tower and the more powerful the transmitter, the larger the radius will be that can be theoretically covered.

Q. Are there other factors that influence the level of service that a customer might experience?

A. Yes. Another important component is the receiving and transmitting equipment that the customer uses. Unlike a broadcast application such as commercial radio, a telecommunications network requires a two-way communication between the tower and the mobile equipment. Not only must the customer's receiver be able to detect and receive the signal from the tower, but it must send a signal back to the tower that the tower is capable of detecting and receiving. Thus the characteristics of the customer's equipment play a critical role in determining the coverage that a customer will experience. The same laws of physics that apply to the tower dictate that the transmitting power and antenna height of the customer's equipment will play a significant role in determining the coverage that will be experienced as well.

Q. What types of equipment do customers generally use?

A. By far, the most commonly used equipment is the cellular handset that most of us carry strapped to our belts or in our purses. These handsets generally operate at a power level of from 0.2 to 0.6 watts. The other type of equipment that is used, although less frequently than in the earlier days of cellular service, is the analog "bag phone", "car phone" or Telular-type wireless local loop units that operate at a power level of 3 watts. The higher power level of this equipment makes it heavier and bulkier, and not as mobile or convenient as the conventional cellular handset. The higher power level of such equipment does give it a significantly larger operating radius than the 0.2 to 0.6 watt handset. In more remote locations, service can also be achieved or improved by working on the "height" variable in the coverage equation. Many of us have had personal experiences with going to a higher floor, or climbing a hill to improve cellular reception. In wireless local loop applications it is often possible to mount an external antenna to the roof of the building to gain additional height and therefore coverage.

Q. Why should the Commission care about the quality of the signal coverage that customers experience and the different coverage characteristics of different types of equipment?

A. The actual wireless coverage that customers experience should be a key factor in the cost/benefit analysis that lies at the heart of the public interest evaluation process. The original high-cost fund had its genesis in the public goal of making wireline telephone service available and affordable in remote and high-cost areas where, absent support, it would not otherwise be offered. Similarly, an equally valid public goal could be to make wireless service more widely available and affordable in remote areas where it would not otherwise be available, absent support. The key factor thus becomes what

benefit will customers experience in terms of expanded ability to use their mobile service over wider areas in return for the increased universal service fund assessments that this will cost? If a wireless carrier merely offers to provide higher powered customer premise equipment and external antennas to a few customers in remote locations so that they can qualify for funding, that might not be worth the cost of providing "high-cost" support for all of that carrier's existing low-cost customer base. It is for this reason that it is critical that the Commission understand the benefits that customers will receive before it decides to spend their money.

MO 5's COVERAGE AREA

Q. Did MO 5 provide information regarding its tower locations and other relevant data?

A. Yes. In response to data requests from CenturyTel and Spectra, MO 5 provided data on the location of each of its current and proposed towers as well as the antenna height, site elevation and effective radiated power (ERP) for both groups of towers. MO 5 has classified all of this data as Highly Confidential.[30]

Q. Has MO 5 provided a propagation analysis indicating its view of the signal coverage provided by its network?

A. Yes. In its original application, MO 5 provided three maps of its service area showing signal coverage. Highly Confidential Appendix E shows "Areas where GSM Coverage would benefit from enhancement," Highly Confidential Appendix H shows the "Proposed enhanced GSM coverage area," and Highly Confidential Appendix I shows

[30] As mentioned previously, tower location data and operating characteristics are also publicly available on the FCC web site.

the "Proposed Total GSM coverage." It should be noted that while MO 5 provided a map showing signal coverage from its "enhanced" network, including the proposed new tower additions, it did not provide a coverage map of its existing network. Without this reference point it is difficult for the Commission to determine what incremental signal coverage improvement is being provided in return for the increased public finding costs.

While each of the maps that MO 5 did provide is shaded to indicate signal coverage, they are shaded in only one color, indicating a single level of signal coverage. In response to a data request from CenturyTel and Spectra, the level of signal coverage shown is **_____** As I will describe shortly, this level of signal coverage is quite low, and will not provide service comparable to that experienced in the more urban areas of the service area.

Q. Does MO 5 have the capability to analyze multiple levels of signal coverage?

A. Yes. In response to a CenturyTel data request for a map similar to Highly Confidential Appendix H that indicates coverage from existing GSM sites, MO 5 provided a propagation map that I have included as Highly Confidential Schedule GHB-4HC to my testimony. This map shows coverage at 4 different levels of signal strength ranging from strong in the more populated areas and along highways, to relatively weak in the more remote areas. This is consistent with the experience of most users of mobile service that service quality is generally very good in towns and close to a tower, but that quality deteriorates and the incidence of dropped calls increases as you move farther away. It should also be noted that the **_____

_____

_____.**

Q. Why should a wireless carrier's signal quality be an important element of the public interest analysis?

A. 47 U.S.C. Section 254(b)(3) describes the purpose of universal service funding as follows:

> ACCESS IN RURAL AND HIGH COST AREAS. – Consumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high-cost areas, should have access to telecommunications and information services, including interexchange services and advanced telecommunications and information services, that are reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas.

Where a wireless ETC accepts federal universal service funds, the quality of the signal coverage provided to rural consumers should be an essential part of the Commission's public interest analysis. The prospective ETC must stand ready to assume Carrier of Last Resort responsibilities if necessary. If a wireless carrier is to accept federal universal service funding for serving high-cost, rural areas, then it should be required to invest that money in a network that provides signal quality reasonably comparable to that experienced in urban areas. If it is not willing to make that level of commitment, then it should not be receiving universal service support.

Q. On page 14 of his testimony, Mr. Simon describes a six-step process that MO 5 proposes to use to demonstrate that MO 5 provides service throughout requested ETC service area. Do you believe that this process is consistent with Section 254(b)(3) of the Act?

A. No. The six-step process that Mr. Simon describes allows a carrier to claim that an area is "covered", even if high-powered customer premises equipment and/or a roof-mounted antenna is required for a customer to receive signal coverage. While this

provides a benefit to the individual consumer receiving this service, it is of no benefit to the vast majority of customers utilizing conventional handsets. It also is inconsistent with the intent of Section 254(b)(3), since the coverage provided is not comparable to that available in urban areas.

Q. Could you please summarize the criteria that the Commission should adopt to assure that the Congressional intent for high-cost universal service funding is achieved and that any carrier so designated would truly serve the public interest?

A. The Commission should require that a prospective ETC applicant provide coverage maps indicating coverage from its existing tower locations, as well as coverage that would result from its proposed build-out. Such maps should be sufficiently detailed to indicate the quality of the signal coverage, and the applicant should provide statistics indicating the improvement in the percentage of population and land area that can experience urban-quality service. Only with this type of data will the Commission be able to make the necessary determination of whether the increased public benefits warrant the increased public costs. MO 5 has not provided this type of data in this proceeding, and should not be granted ETC status until it has done so and proven that it passes a reasonable cost/benefit test.

THE FCC'S *ETC DESIGNATION ORDER* CRITERIA

Q. Earlier you described the public interest test that the FCC has outlined in its *ETC Desgination Order*, and suggested that these would form a solid basis for the Commission to develop its ETC designation criteria. Could you please analyze MO 5's submissions in this proceeding against the FCC's evaluation criteria?

A. The FCC's *ETC Designation Order* provided five specific criteria that must be met for a prospective applicant to be designated as an ETC. Following is an evaluation of MO 5's filing in this proceeding against these five criteria.

1. Provide a five-year plan demonstrating how high-cost universal service support will be used to improve its coverage, service quality or capacity in every wire center for which it seeks designation and expects to receive universal service support.

The FCC describes its expectations for this five year plan as follows:

> This showing must include:
> 1. How signal quality, coverage, or capacity will improve due to the receipt of high-cost support throughout the area for which the ETC seeks designation;
> 2. The projected start date and completion date for each improvement and the estimated amount of investment for each project that is funded by high-cost support.
> 3. The specific geographic areas where the improvements will be made; and
> 4. The estimated population that will be served as a result of the improvements.[31]

While MO 5 does provide a five-year plan, and describes 17 new sites that it proposes to build if it receives ETC designation, it does not provide the necessary information that will allow the Commission to determine the specific signal quality or capacity improvements that will result from this plan on a wire center-by-wire center basis. As mentioned previously, the Commission needs this type of data to perform its role to assure that increased public benefits exceed increased public costs, and that the designation will be in the public interest.

2. Demonstrate its ability to remain functional in emergency situations.

The FCC states that "an applicant must demonstrate it has a reasonable amount of back-up power to ensure functionality without an external power source, is able to reroute traffic around damaged facilities, and it capable of managing traffic spikes

resulting from emergency situations."[32] Mr. Simon describes steps that MO 5 has taken to ensure network reliability on pages 20 - 21 of his testimony. In paragraph 25 of the ETC Designation Order, the FCC states:

> Because most emergency situations are local in nature, we anticipate that state commissions that choose to adopt an emergency functionality requirement may also identify other geography-specific factors that are relevant for consideration.

The Commission will need to determine if the network reliability measures taken by MO 5 are sufficient to provide emergency functionality to Missouri consumers for a company receiving public high-cost support.

3. Demonstrate that it will satisfy consumer protection and service quality standards.

The FCC has stated that "a carrier seeking ETC designation [must] demonstrate its commitment to meeting consumer protection and service quality standards," and that "a commitment to comply with the CTIA Consumer Code for Wireless Service will satisfy this requirement."[33] MO 5 has indicated that it supports the CTIA Code. This Commission has also outlined specific consumer protection provisions in its proposed rule as published in the Missouri Register, and MO 5 has made no demonstration that it will comply with those provisions.

4. Offer local usage plans comparable to those offered by the ILEC in the areas for which it seeks designation.

The *ETC Designation Order* adopts the Joint Board's recommendation that a local usage requirement be established as a condition for receiving ETC designation. In establishing this requirement they state:

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[31] *ETC Designation Order* at paragraph 23.
[32] *Id* at paragraph 25
[33] *Id* at paragraph 28.

> Specifically, we require an ETC applicant to demonstrate that it offers a local usage plan comparable to the one offered by the incumbent LEC in the service areas for which the applicant seeks ETC designation.[34]
>
> We encourage state commissions to consider whether an ETC offers a local usage plan comparable to those offered by the incumbent in examining whether the ETC applicant provides adequate local usage to receive designation as an ETC.[35]

On page 8 of his testimony, Mr. Simon describes an "ILEC Equivalent Plan" that would offer unlimited local calling and limited mobility within the area served by the customer's home cell site at a fixed monthly price of $15 per month. What is unstated is what rates a consumer would pay if they stray beyond their "home cell site" area. Data from MO 5's web site[36] indicates that for its two basic local calling plans – "Local Connection" and "Show-me Connection" – minutes of use beyond the allowances included in the plans will be billed at 45 cents per minute. Since the ILEC equivalent plan does not appear to offer an allowance for calling beyond the home cell site, it is reasonable to assume that usage away from the home cell site would also be at the 45 cent per minute rate, which equates to $27 per hour. This rate presumably would apply both for calls made and calls received when the consumer is away from its home cell site area. Since consumers may not know the precise location of their home cell site, consumers could be in for a nasty surprise when they attempt to use the limited mobility feature of the ILEC Equivalent plan.

5. Acknowledge that it may be required to provide equal access if all other ETCs in the designated service area relinquish their designation.

In addressing the provision of equal access to long distance carriers the FCC states:

[34] *Id* at paragraph 32.

> Although we do not impose a general equal access requirement on ETC applicants at this time, ETC applicants should acknowledge that we may require them to provide equal access to long distance carriers in their designated service area in the event that no other ETC is providing equal access within the service area.[37]

MO 5 has committed to offer equal access should the incumbent relinquish ETC designation.

SUPPORT FOR MULTIPLE WIRELESS ETCS

Q. Will designating MO 5 as an ETC in the requested areas increase the competitive choices that Missouri customers currently experience?

A. No. Designating MO 5 as an ETC will not increase the competitive choices that Missouri customers currently have, and they have provided no specific facts or data to prove otherwise. MO 5 already provides wireless service in the areas where it has requested ETC status. MO 5 has neither identified nor quantified any customers who cannot currently get basic universal service that will be able to do so as a result of its ETC designation. MO 5 has not indicated that any prices will be reduced if ETC status is granted. There are already at least six other wireless carriers providing competitive wireless service in the requested areas without universal service support today. Therefore, MO 5 has not quantified any specific benefits, and it is doubtful that significant additional competitive choices will result from designation of MO 5 as a competitive ETC.

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[35] *Id* at paragraph 34.
[36] This website can be found at www.cvalley.net.
[37] *ETC Designation Order* at paragraph 35.

Q. Earlier you mentioned that US Cellular has also requested ETC status for all of the Spectra wire centers for which MO5 has requested ETC designation. How should the Commission evaluate this situation?

A. As I have already stated, the key element in assessing the public interest impact of any ETC designation is whether the designation of any additional ETC will produce increased public benefits that exceed the increased public costs. Stated differently – how many wireless ETCs and Carriers of Last Resort do consumers need, or can they afford?

Q. How could the Commission proceed with analyzing multiple requests for ETC status in the same sparsely populated rural areas?

A. In evaluating multiple requests for ETC status, the type of signal coverage data that the *ETC Designation Order* and this Commission's draft rule would require, as well as details regarding the service quality improvements that each prospective ETC applicant is willing to commit to, become even more important. The Commission must seek to get the maximum public benefit from scarce public universal service funding resources. As I have mentioned previously in this testimony, having multiple carriers (wireless or wireline) serve the same sparsely populated areas necessarily means that total costs for each carrier (as well as for society as a whole) actually will increase. One possible solution that would preserve competition within the wireless market would be to award ETC status only to the wireless carrier that offers the best cost/benefit proposition in terms of network enhancement, and have that carrier offer discounted roaming services to other carriers in the area for which it receives ETC support.

Q. On page 25 of her testimony, Ms Zentgraf references a decision by the FCC in the Nextel case. Do you agree with her conclusions regarding that decision?

A. No. In the Nextel case[38], the FCC gave blanket authorization to Nextel for ETC status in seven states. Contrary to Ms. Zentgraf's belief, Nextel did not make "specific showings, comparable to those made by MO 5 here"[39] in making its public interest determination. Earlier in this testimony I quoted a decision of the Minnesota Public Utilities Commission in which they specifically stated that Nextel presented no intention or evidence of their intent to expand to serve throughout the service area. Nextel made no such showing in the FCC case either. As I mentioned at the outset of my testimony, the FCC's positions on ETC designation and the public interest have evolved over time, and now require specific facts and data as well as concrete plans and infrastructure investment commitments.

Q. On page 16 Ms. Zentgraf states that designating MO 5 as an ETC would have a negligible impact on the universal service fund. Do you agree with this conclusion?

No. The ultimate impact of designating MO 5 as an ETC in the state of Missouri on the USF will be significant. I have already indicated that the direct impact of MO 5's designation will be approximately $1.5 million annually, and that if all other wireless carriers in the state of Missouri request and receive ETC status, the total annual impact will be over $81 million. It has been estimated that if all wireless carriers nationwide were to be granted ETC status, then the universal service fund would grow by between

[38] In the Matter of Federal-State Joint Board on Universal Service Petition(s) for Designation as an Eligible Telecommunications Carrier in Alabama, Florida, Georgia, New York, Pennsylvania, Tennessee and Virginia, CC Docket 96-45, *Order*, DA 04-2667, released August 25, 2004.
[39] Zentgraf testimony at page 26, line 5.

$2 billion and $3 billion per year.[40] No one ETC designation, by itself, is going to break the bank, however it is the collective decisions of Commissions across the nation, including the Missouri Commission, that will determine the USF assessments that all consumers, including Missouri consumers, must pay. It is for this reason that the FCC and the Joint Board have called for comprehensive and "more stringent"[41] public interest standards for ETC designations.

HARMS TO CONSUMERS

Q. If MO 5 is to be granted ETC status, what potential harms could occur to Missouri customers?

A. Harms to customers from an improper ETC designation can come in several forms. First, and most easily identified, is the cost imposed upon customers, particularly if they do not receive equal or greater benefits in return. As I mentioned previously, if in return for ETC designation the applicant expands its network to areas that were previously unserved, and expands the area over which consumers can utilize mobile communications, then perhaps this could be a reasonable use of public funds. If, on the other hand, the applicant merely offers to serve outlying customers with high-powered customer premise equipment and roof-top antennas as a means of meeting minimum funding qualifications, and if the large body of its existing customers experience no tangible improvement in their service, then such funding would not be in the public interest, and the cost of the increased funding assessments would represent a harm to

[40] See *Universal Service – Rural Infrastructure at Risk*, March, 2005 published by McLean & Brown at page 28. This paper may be obtained at www.mcleanbrown.com.
[41] *Virginia Cellular* Order at paragraph 4.

consumers. Another harm could occur if multiple ETCs are designated in areas that could not economically support multiple carriers.

Q. How would designating multiple carriers in areas in sparsely populated rural areas cause harm to consumers?

A. Earlier in my testimony I presented several charts and graphs that showed the relationship of cost to subscriber density. In very sparsely populated rural areas, the largely fixed nature of network costs (both wireline and wireless) causes costs to increase geometrically as population density decreases. This is the phenomenon identified by FCC Chairman Martin that supporting multiple carriers in an area that is prohibitively expensive for one provider could cause "stranded investment and a ballooning universal service fund".

Q. Does the prospect of multiple competitive ETCs impact the ability of these carriers to function as Carriers of Last Resort?

A. Yes. It certainly raises the question of whether multiple carriers could each economically build a network that provided service throughout the study area and be prepared to function as Carriers of Last Resort, particularly in sparsely populated, high-cost portions of Missouri. As I described earlier, wireless networks exhibit the same characteristics of increasing cost with decreasing density as wireline networks. Thus, if multiple ETCs are placed in a high-cost area with a fixed amount of support, it becomes increasingly difficult for any of them to effectively serve throughout the entire study area and function as a Carrier of Last Resort. This would carry the prospect of significant harm to consumers in the most rural parts of Missouri.

Q. How should the Commission assure that consumers in the most rural parts of Missouri are not harmed?

A. In addition to carefully assessing the potential harms that could occur to customers of the wireline incumbent currently functioning as Carrier of Last Resort, the Commission must also assure itself that the new ETC actually will build sufficient facilities in a reasonable period of time to serve throughout the entire study area. The Joint Board made very clear that ETC applicants must be able to serve throughout the study area, and if they did not do so at the time of application, that they provide formal build-out plans subject to annual review. The FCC formalized this requirement in the *ETC Designation Order*. Their reason for this recommendation is that otherwise there would be no guarantee that they would be able to function as Carrier of Last Resort if the incumbent was unable to continue to do so. Indeed, if carriers can obtain ETC status and "high-cost" funding without some form of enforceable commitment to actually expand their network into high-cost areas then the Commission may have created unintended consequences and negative incentives.

Q. Why do you say that the lack of an enforceable commitment to invest universal service fund proceeds to expand service throughout the ETC service area would create negative incentives?

A. If a carrier can gain access to high-cost funds for serving its current predominantly low-cost customer base without making any enforceable commitment to serve the entire area, then there is a significant risk that the remote facilities will never be built, and the most rural customers will remain unserved by the wireless ETC. The reason is simple, once the carrier has the funding in hand, it faces a very different set of

business incentives regarding investments in remote areas. Construction of these facilities will generate substantial cost, yet yield relatively little incremental revenue. In essence, the carrier is back where it started, with no incentive to make investments that make no business sense. Unless the Commission either requires the prospective ETC applicant to serve throughout the area prior to granting ETC status, or requires specific build-out plans and firm and enforceable commitments for such investment as a pre-condition to granting ETC status, then it is highly likely that the carrier will not build facilities to serve the remote customers, and that scarce high-cost funds will provide a windfall to carries serving predominantly low-cost markets. The losers in this scenario would be rural customers who could face the prospect of having no carrier willing or able to make the investments necessary to function as Carrier of Last Resort. It would also be difficult, if not impossible, for carries to invest to bring rural customers access to advanced services, including broadband services.

CONCLUSIONS

Q. Please summarize your testimony.

A.. The Commission has important obligations under the 1996 Act to approve additional ETCs only when such designation would be in the public interest. The public interest is only served when the incremental public benefits of designating an additional ETC exceed the increased public cost of supporting an additional carrier. The FCC has provided criteria and tools in its *ETC Designation Order* to assist in making this determination. This Commission is in the process of developing ETC designation rules and procedures to assure that the public interest is served, and that recipients of universal service funds have public accountability for the use of such funds. Since it is important

that these rules be uniformly applied, and multiple wireless carriers have applications pending for most of the wire centers in this case, the Commission should finalize its proposed ETC rule before any specific ETC designations are granted. While MO5 has provided some of the facts and data necessary for the Commission to analyze its Application, it has not provided sufficient information to allow the Commission to properly evaluate the benefits and costs of its designation, and unless and until it does so, the Commission cannot approve its application.

Q. Does this conclude your testimony at this time?

A. Yes.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Application of Missouri RSA No. 5 Partnership for Designation as a Telecommunications Company Carrier Eligible for Federal Universal Service Support Pursuant to § 254 of the Telecommunications Act of 1996	))))))	Case No. TO-2006-0172

AFFIDAVIT OF GLENN BROWN

State of Arizona)
) ss.
County of Yavapai)

Glenn Brown, being of lawful age, on his oath states: that he has participated in the preparation of the foregoing Rebuttal Testimony in question and answer form, consisting of 44 pages to be presented in the above case; that the answers in the foregoing Rebuttal Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of his knowledge, information and belief.

Glenn Brown

Subscribed and sworn to before me this 24th day of February, 2006.

NOTARY PUBLIC
STATE OF ARIZONA
Yavapai County
GINA GONZALES
My Commission Expires 09/10/06

Notary Public

(seal)

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