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Federal Communications Commission  
Office of Secretary

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554

In the Matter of )

**Facilitating the Provision of Spectrum-  
Based Services to Rural Areas and  
Promoting Opportunities for Rural  
Telephone Companies to Provide Spectrum  
Based Services** )

*Notice of Inquiry (FCC 02-235), released  
December 20, 2002.* )

WT Docket No. 02-381

To: The Commission

**COMMENTS OF SOUTH DAKOTA TELECOMMUNICATIONS ASSOCIATION**

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## SUMMARY

The Commission should foster rural access to spectrum by licensing at least a portion of future spectrum allocations on the basis of the Metropolitan Statistical Area (MSA)-Rural Service Area (RSA) assignment model. Adopting an RSA-size licensing model will help the FCC to achieve its goal of spectral efficiency because it will ensure that wireless facilities actually will be constructed and operated in rural areas. By definition, an RSA is an area made up of rural territory, without any significant urban or suburban area within its boundaries. When larger license sizes are used, the licensee can generally avoid service to rural areas by satisfying its buildout requirement with coverage to only the major population centers. To further enhance rural spectrum access, the Commission should:

- A. Use the RSA concept as the basis for its definition of “rural areas”;
- B. Move forward with its proposal to create rural telephone bid credits, since small business bid credits have been ineffective in facilitating rural telco participation in auctions;
- C. Recognize that although nationwide carriers can achieve greater economies of scale, they lack the incentives to serve rural areas, making it vital that rural carriers be given the opportunity to bid on small. rural licenses;
- D. Revise the partitioning and disaggregation rules *to* better facilitate such transactions, by providing large licensees with greater incentives to deal with rural carriers (including a larger reduction of a buildout requirement if a licensee partitions to a rural carrier; and/or a modified version of the cellular unserved area rule);
- E. Adopt reasonable performance requirements that create incentives for the licensee to serve rural areas, and recognize that use of RSA-sized licenses will make any performance requirements more effective,
- F. Adopt a spectrum leasing option as a tool for certain spectrum transactions, while recognizing that the band manager concept (mandatory leasing) will not be effective in rural areas, since high rural construction costs militate against investing in “borrowed spectrum”;
- G. Adopt higher permissible power levels for rural licensees, since higher power will allow lower construction costs;
- H. Facilitate unlicensed operations in rural areas, while protecting the rights of incumbent licensees operating on the same spectrum;
- I. Reexamine its policy of liberally granting ETC status to wireless operations in rural telco service areas, because of the lack of rural benefits and adverse impact on the future of USF.

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South Dakota Telecommunications Association (SDTA), by its attorney, hereby submits these comments concerning the Commission’s Notice of Inquiry (“NOI”) in the above-captioned proceeding. **As** discussed below, the single most important factor in making spectrum available in rural areas is the use of smaller license areas for at least a portion of the spectrum to be made available in each future auction. Other measures to enhance rural spectrum access are discussed herein. In making its comments below, SDTA assumes that the Commission will issue a detailed Notice of Proposed Rulemaking, with specific language for proposed rule changes, prior to adopting any final measures based on the NOI.

**I. STATEMENT OF INTEREST**

SDTA is an association of 30 independent, cooperative and municipal incumbent local exchange carriers (ILECs) serving rural areas in South Dakota. These rural telephone companies are striving to bring advanced telecommunications services to their rural communities. Most have participated in spectrum auctions, with mixed success. **All** are expending significant

resources trying to determine the best way to make use of wireless technologies for the benefit of the rural communities they serve.

**II. THE COMMISSION SHOULD TAKE DECISIVE ACTION TO FOSTER SPECTRUM ACCESS IN RURAL AREAS.**

SDTA applauds the Commission for its initiative in focusing on the issue of whether wireless services are available in rural areas. Creating meaningful access to spectrum in rural areas is critical. Industry and consumer trends indicate that wireless will play a much larger role in the future in carrying both voice traffic and data.<sup>1</sup> As consumers come to expect greater mobility, it will be necessary for the traditional wireline telephone carriers to incorporate wireless into their service offering. In rural America, this mobility has greater significance, since everyday life often requires traveling over great distances. Moreover, accidents, vehicle breakdowns and medical emergencies have potentially more dire consequences in rural areas, if help is not summoned immediately. Effective and affordable wireless communications can greatly mitigate the reduced availability of emergency services in such areas. In addition, fixed and mobile wireless offers the potential to bring broadband data/internet access to rural communities more quickly and less expensively than traditional wireline technologies. SDTA's members have been on the cutting edge in deploying fiber optic rings throughout the State of South Dakota, as a way to empower its citizens. However, it is still necessary to accomplish the "last mile" deployment to the subscriber. In remote areas, this last mile is often in fact several miles, making wireless technology an attractive or even necessary solution.

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<sup>1</sup> *Spectrum Policy Task Force Report*, ET Docket No. 02-135 (released November 2002) at 12, discussing explosive demand for spectrum-based services and devices.

In recognition of these circumstances, Congress has instructed the Commission to take action **As** the NOI correctly observes, Section 309(j)(3) of the Communications Act of 1934, as amended, directs the Commission to design competitive bidding systems so as to promote certain public interest objectives, including “promoting economic opportunity and competition and ensuring that new and innovative technologies are readily accessible to the American people by avoiding excessive concentration of licenses and disseminating licenses among a wide variety of applicants, including small businesses, rural telephone companies, and businesses owned by minority groups and women ” 47 U.S.C. § 309(j)(3)(B).

When Congress gave the Commission the authority to conduct spectrum auctions in the Omnibus Budget Reconciliation Act of 1993, many legislators were concerned that competitive bidding would result in a much greater concentration of wireless licenses and facilities in the hands of large and “deep-pocketed” entities, and in the more populous and financially lucrative urban areas. *H.K. Report 103-111*, 103d Congress, 1<sup>st</sup> Session, at pp. 254-55 **As** a result, Congress granted competitive bidding authority to the Commission only on the condition that the auction methodologies to be implemented would include safeguards to protect the public interest in the use of spectrum, and to advance the objectives of Section 309(j)

Congress expressly required the Commission to adopt and implement specific spectrum auction regulations that would:

- “consistent with the public interest, convenience and necessity, the purposes of this Act, and the characteristics of the proposed service, prescribe area designations and bandwidth assignments that promote (i) an equitable distribution of licenses and services among geographic areas, (ii) economic opportunity for a wide variety of applicants, including small businesses, rural telephone companies, and businesses owned by members of minority groups and women, and (iii) investment in and rapid development of new technologies and services,” 47 U.S.C. § 309(j)(4)(C); and

- “ensure that small businesses, rural telephone companies, and businesses owned by members of minority groups and women are given the opportunity to participate in the provision of spectrum-based services, and for such purposes, consider the use of tax certificates, bidding preferences, and other procedures.”<sup>47</sup>  
U.S.C. § 309(j)(4)(D)

These statutory provisions require the Commission to monitor and adjust its spectrum auction procedures to ensure that wireless facilities are being constructed and operated in rural areas, and that rural telephone companies and other small businesses are being afforded fair opportunities to acquire and develop an equitable share of the auctioned spectrum

Quality wireless services (especially digital wireless services) have not become widely available in major portions of rural America. With the exception of roaming corridors along rural stretches of certain interstate highways, wireless has been primarily an urban and suburban service. To a large extent, this is due to the large geographical licensing areas (e.g., EAGs, Metropolitan Trading Areas (MTAs), etc.) that the Commission assigned in previous auctions. These large licensing areas have been dominated by one or more urban areas, and generally have had population, demographic, and economic characteristics beyond the scale that rural telephone companies could reasonably expect to successfully bid on and serve.

SDTA addresses below the specific inquiries posed by the Commission in this proceeding, in the order in which they appear in the NOI.

#### **A. Definition of “Rural Areas”**

The NOI (at para. 15) requests input on how the term “rural areas” should be defined, for purposes of implementing the mandates of Section 309(j) of the Act. SDTA believes that the Commission has already begun to explore a rural spectrum allocation path that will effectively implement the Act, without creating an unduly complicated definition of the term “rural.” In particular, the Commission should license at least a portion of virtually all future spectrum

allocations on the basis of the Metropolitan Statistical Area (MSA)-Rural Service Area (RSA) assignment model. The Commission has already taken a positive first step by assigning MSA/RSA licenses to the 12 MHz C-block in the Lower 700 MHz Band (710-716 MHz/740-746 MHz).<sup>2</sup> As reflected in the Auction No. 44 results, rural carriers were very active in this spectrum sale, and most were successful bidders.

Adopting an RSA-sized licensing model will help the Commission avoid an overly broad application of rural benefits, because it will ensure that wireless facilities actually will be constructed and operated in rural areas. By definition, an RSA is an area made up of rural territory, without any significant urban or suburban area within its boundaries. This fact would allow the Commission to avoid the definitional quandary discussed in the NOI, since any construction within the RSA would be service to a rural area. The Commission would not have to focus unduly on whether the applicant meets the definition of “rural telephone company”

When larger license sizes are used, the licensee can generally avoid service to rural areas by satisfying its buildout requirement with coverage to only the major population centers in the license territory. Use of MSA and RSA licenses creates a natural marketplace incentive for larger carriers to focus on the urban and suburban areas that are at the core of their business plan, while to some degree shying away from the rural areas that they have no immediate plan to cover.

RSA license areas will also ensure that these licenses will be acquired by the entities that place the highest value upon serving rural areas. Rural telephone companies have a long and proven record of high-quality service that has been responsive to the needs of rural customers. If

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*Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59), GN Docket No. 01-74, released January 18, 2002.*

license sizes are small enough for rural telephone companies to acquire them with their limited resources, wireless services will be more readily deployed in rural America, consistent with the rural mandates of the Communications Act. At the same time, the Commission will be helping a group of bona fide and verifiable small businesses to participate in telecommunications, consistent with its statutory obligations. For this reason, SDTA believes that RSA-sized licenses should be used for at least one band of spectrum in virtually every auction, rather than using a sliding definition of “rural” from auction to auction. See *NOI at para. 15*.

### **B. Bidding Credits**

The Commission should move forward with the proposal discussed in the NOI to create rural telephone bid credits.<sup>3</sup> The NOI correctly observes that most rural telephone companies qualify as “small businesses” or “entrepreneurs” for purposes of existing bid credits. However, the Commission’s “entrepreneur” and “small business” bid credit programs that were designed to assist bona fide small businesses in entering the wireless business have not proven to be an effective tool for rural carriers. Due in part to the assignment of large licensing areas, past entrepreneur and small business auctions have been dominated by start-ups designed on paper to meet the letter of the Commission’s eligibility requirements and attribution rules. But these entities were able to access resources far in excess of those available to rural carriers and typical small businesses.

In the most recent Broadband PCS auction (Auction No. 35), for example, entities claiming less than \$125 million in attributable annual gross revenues and less than \$500 million in attributable total assets bid billions of dollars to win the lion’s share of the restricted entrepreneur licenses. As the NOI observes (at para. 6), 79 percent of all qualified bidders have

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<sup>3</sup> *NOI*, paras 16-17, at 11

received a small business bid credit. This outcome has left rural carriers with little or no ability to distinguish themselves from other bidders, and the small business credit has in essence been neutralized in many prior auctions. A rural telephone bid credit would help to mitigate this unfortunate dynamic.

To avoid the risk of unqualified entities receiving this benefit, the rural telephone bid credit should be awarded to any entity that meets the statutory definition of “rural telephone company”<sup>4</sup> and is bidding on a license that includes or is adjacent to its certificated service area. If a group of rural telephone companies is jointly bidding on a license, the bid credit would be available if the license includes or is adjacent to the certificated service area of any member of the bidding group. The rural telephone bid credit should be available *in addition to* any small business bid credits for which the applicant (or consortium) is eligible, and the value of such a credit should be at least 25 percent. In auctions that do not include RSA-sized licenses the value of a rural telephone bid credit should be at least 35 percent.

The Commission has previously come to the conclusion that rural telcos do not appear to have barriers to capital formation similar to those faced by other designated entities. *See NOI at para. 17.* However, the auction experience since the Commission made this finding in 1994 has proven the opposite to be true. “Small businesses” like Salmon PCS and Alaska Native Wireless have come to the table with hundreds of millions or *billions* of dollars that they rather easily raised by granting equity interests to some of the largest telecommunications carriers on the planet. In contrast, rural telephone companies are limited in their ability to raise large amounts of money. This is especially true of rural telephone cooperatives, which are generally restricted by their cooperative by-laws and/or state law from raising money through the issuance of large

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<sup>4</sup> 47 U.S.C. § 153 (37)

equity interests. In a cooperative structure, each subscriber is an owner, and holds the same (miniscule) undivided ownership interest as every other subscriber. *See Ex Parte Comments of National Telecommunications Cooperative Association et al*, WT Docket No. 97-82, filed November 26, 2002.

The NOI also notes that rural telcos may have access to "below market rate lending" through the Department of Agriculture's Rural Utilities Service ("RUS"), including the broadband deployment provisions of the Farm Security and Rural Investment Act of 2002. *See NOI at para. 17*. However, RUS generally requires rural carriers to provide a careful business plan of limited scope. In the experience of SDTA and its members, RUS has not been anxious to lend huge amounts of money for what the marketplace views as speculative wireless ventures, especially in the amounts that would have been necessary to bid successfully against the likes of Salmon PCS and Alaska Native.

SDTA and its members are certainly excited about the possible benefits of the Farm Security and Rural Investment Act of 2002. However, the program of broadband deployment loans to be administered by RUS under this legislation do not constitute a "cure all" for rural telco access to capital. In particular, the legislation's definition of "broadband" would pose a problem for most of the "advanced" (*i.e.*, 2.5G) wireless technologies that are available today. The rules provide that RUS will publish the criteria for "broadband" in the Federal Register at the beginning of each fiscal year, and they are starting with the Commission's current Section 706 standard for "advanced telecommunications capability" (*i.e.*, 200 kilobits per second, or kb/s, in both directions). However, one of the most advanced wireless technologies available today, CDMA 1xRTT, falls short of this definition because it only has the capability to transmit

at bit speeds of up to 153 kb/s<sup>5</sup>

The legislation also contains a “one-per-market” rule, pursuant to Section 1738.19(h) of the RUS rural broadband loan rules [7 C.F.R. §1738.19(h)]. Under this restriction, RUS will not approve loans to more than one applicant to provide broadband service within the same eligible rural community. This restriction seems to conflict with the Commission’s pro-competition policies. Moreover, it can prove problematic in instances where different types of geographic service areas are used for licensing (e.g., RSAs for cellular and Lower 700 MHz Band vs. Major Trading Areas [MTAs] and Basic Trading Areas [BTAs] for PCS vs. BTAs for LMDS and MMDS vs. Basic Economic Areas [BEAs] for 39 GHz). In other words, some other carrier may have applied for a loan through the RUS Broadband Access program to help deploy LMDS in one portion of a BTA market, and this might prevent a lower 700 MHz band licensee from obtaining an RUS loan to help it to serve a different community that happens to be within the same BTA as the LMDS licensee

In addition, it appears that rural carriers cannot use these RUS loans in conjunction with leased spectrum. The Commission’s Spectrum Policy Task Force has advocated spectrum leasing as a way to help rural telcos to gain access to spectrum they would not otherwise be able to obtain at auction *Spectrum Policy Task Force Report*, ET Docket No 02-135 (released November 2002) at pp. 55-57. Under Section 1738.19(b) of its rules [7 C.F.R. §1738.19(b)], RUS will not make a broadband deployment loan to finance facilities leased under the terms of an “operating lease.” RUS staff has informally indicated that a spectrum lease would be considered an operating lease

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<sup>5</sup> See Statement of David L. Sicradzki, Counsel for U.S. Cellular Corporation. “Broadband Access and Deployment in Rural Areas,” before the U.S. Department of Agriculture RUS Program on Rural Broadband Access, June 27, 2002. Available online at [http://www.usda.gov/rus/telecom/publicmeeting/public\\_meeting.htm](http://www.usda.gov/rus/telecom/publicmeeting/public_meeting.htm).

Likewise, the RUS broadband loans cannot be used to defray the cost of customer premises equipment (CPE). A significant barrier to deploying rural wireless networks is the cost of CPE, and it is often necessary for carriers to consider subsidizing this cost in order to spur subscriber interest. Indeed, the lack of affordable subscriber equipment has been a key reason why LMDS has not been successfully deployed on a large scale, especially in rural areas. See *Wireless Broadband Networks Handbook*, Chapter 7 (LMDS) p. 2. Section 1738.19(e)(1) of the RUS Rules [7 C.F.R. §1738.19(e)(1)] indicates that the RUS loan cannot be used to help finance the cost of customer terminal equipment or associated inside wiring. The expense of sending a technician to the customer's home (i.e., the "truck roll") is another significant barrier to the deployment of fixed wireless networks in rural America. Section 1738.19(e)(3) of the RUS rules [7 C.F.R. §1738.19(e)(3)] indicates that proceeds of the RUS loan cannot be used to help pay operating expenses.

Moreover, it appears that rural telcos may have difficulty using RUS broadband loan money to acquire spectrum at auction. The RUS staff responsible for reviewing completed broadband loan applications has indicated that loan applicants must have all required regulatory approvals in place *before* their loan application will be considered for funding. This requirement may pose an additional hurdle for rural telcos seeking to compete in a spectrum auction.

Therefore, while rural telcos have certain avenues available to them for financing, these avenues are of limited use for wireless projects, and pale in comparison to the equity fund raising mechanism that has developed for other "small businesses". A rural telephone bid credit is still necessary to help address this problem.

### C. Geographic Service Areas

As described above, many of the licensing areas used in prior auctions have been too expensive for rural telephone companies and consortia to acquire, and too costly and unwieldy for them to construct and operate thereafter. As a result, most of the important third generation wireless spectrum has been acquired at auction or thereafter by large national and regional wireless carriers with the “deep pockets” necessary to bid and pay high prices. These large carriers then have focused their construction and service efforts in the most populous and lucrative urban and suburban portions of their licensing areas. In fact, these carriers normally have been able to satisfy their full build-out requirements without reaching the rural portions of the licensing areas. *SDTA considers the unavailability of small license areas in auctions to be the single greatest obstacle to rural spectrum access*

The Commission and Congress recognized this problem when MSA/RSA licensing areas were adopted for the Lower 700 MHz Band C-block auction.<sup>6</sup> Many rural telephone companies have attempted to obtain spectrum in the past, with mixed results, but were successful when seeking RSA licenses in the Lower 700 MHz auction. **SDTA** urges the Commission to continue to assign RSA licensing areas to one or more spectrum blocks in all future auctions.

While some rural telcos were able to obtain BTA-sized licenses, many failed in their attempt to obtain their BTAs of interest. By definition, every BTA contains a city or town that is at the center of commerce for the designated area. This population center makes the BTA an attractive bidding target for larger applicants, and often makes it possible for the auction winner to satisfy its construction requirement by serving only the population center in the BTA.

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<sup>6</sup> *Auction Reform Act of 2002*, Pub. L. 107-95. See also *Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59)*, GN Docket No. 01-74, Report and Order (released Jan. 18, 2002).

Therefore, the MSA/RSA license scheme is much more effective in ensuring service to rural areas.<sup>7</sup>

The NOI asks (at para. 19) whether large license areas are better because they may enable nationwide carriers to compete with smaller carriers in rural areas, using their greater economies of scale, and facilitate new entrants. At the outset, **SDTA** notes that in every important auction that has featured smaller (BTA or RSA) licenses, the Commission also auctioned other frequency blocks of the same spectrum, using larger license areas. Thus, PCS licenses were auctioned using both MTA and BTA licenses; 39 GHz licenses were auctioned on both an EA and EAG basis; and while one 12 MHz-block of Lower 700 MHz spectrum has been auctioned using MSA/RSA-sized licenses, the remaining Lower 700 MHz A/B/E-blocks, as well as the Upper 700 MHz Band (TV Channels 60-69) will be auctioned as much larger **EAC** licenses.<sup>8</sup> Thus, even when the Commission has made smaller licenses available, the nationwide carriers have had a more than equal opportunity to obtain a larger license that included rural areas. The proposal to make at least one RSA-sized license available in each future auction would not change this fact.<sup>9</sup>

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<sup>7</sup> The NOI (at para. 19) asks if combinatorial or “package” bidding would facilitate service to rural areas. Such configurations **would only hinder rural service**, by allowing larger bidders to defeat a rural carrier’s ability to bid on the license for its community. The larger bidder could in essence remove smaller licenses from the auction by making them part of a package bid.

<sup>8</sup> *Auction Reform Act of 2002*, Pub. L. 107-195. See also *Auction of Licenses in the 747-762 MHz and 777-792 MHz Bands (Auction No. 31) is Rescheduled*, Public Notice (DA 02-1829), released July 26, 2002.

<sup>9</sup> In any event, if a nationwide carrier wishes to serve rural areas, it will generally be able to dominate the RSA-license auction if it desires to do so. And while there may be some arguable inefficiency in requiring the nationwide carrier to bid on several small areas instead of one larger area, the Commission’s refinements of the computerized bidding system has made bidding on multiple small areas a minor inconvenience. With the “click box” bidding format, the nationwide carrier need not even strategize over the amount to bid next. Therefore, “efficiency” considerations are largely inapplicable, and have been mooted by the availability of large licenses in most auctioned services.

More importantly, the notion that rural Americans would be better off if spectrum is spoon-fed to nationwide carriers in the name of efficiency is a non-starter. The whole reason that hundreds of rural telephone companies exist in America today is that the residents of the communities they serve would still be living in the Stone Age if they relied on the larger carriers to bring them telecommunications service. Larger carriers are profit driven. As a result, they cannot justify extending service to many (if not most) rural areas. When faced with this fact, many rural communities realized that the only way they would ever see telephone service would be to form their own telephone cooperative. This dynamic has not changed for the better over the years. In fact, with the economic downturn that the telecommunications industry has experienced over the past three years, many large carriers are curtailing their wireless buildout plans.<sup>10</sup> The Commission's records reflect that large carriers like GTE and Qwest have been systematically selling off their rural exchanges. Eight years after the award of the MTA-sized **PCS** licenses (which collectively gave several nationwide carriers the right to cover every rural community in America), the vast majority of rural areas are still awaiting their first PCS signal. In the State of South Dakota, the only PCS coverage is in the City of Sioux Falls and the City of Watertown, and the interstate highway that runs between these cities. This service is provided not by a nationwide carrier, but by SDTA-member Brookings Municipal Utilities.

In contrast, rural telephone companies have been formed with a priority of serving their rural communities first and foremost, even if larger carriers would not view such service as adequately profitable. The hundreds of existing rural cooperatives are owned by the citizens they serve, and generally operate on a not-for-profit basis. It is true that these small carriers cannot achieve the volume equipment discounts and other economies of scale that nationwide

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<sup>10</sup> See, e.g., Ryan Naraine, *AT&T 3G Rollout Delayed, Scaled Back*, December 26, 2002, [www.internetnews.net](http://www.internetnews.net).

carriers achieve. However, a less efficient service is better than no service at all, which is the prospect faced by many rural communities if they had to wait for a nationwide carrier to extend coverage. Rural telcos are attempting to achieve efficiencies approaching those of the nationwide carriers, by forming consortia, or by affiliating with a larger licensee. **As** an example, Brookings Municipal Utilities has formed an affiliation with Sprint PCS to facilitate nationwide roaming and other benefits for its South Dakota customers.

Therefore, the future of rural wireless communications depends on the participation of rural telephone carriers, which have a proven track record of serving their communities. In recognition of this fact, Congress mandated that the Commission facilitate rural telco participation in advanced telecommunications services, pursuant to Section 309(j) of the Act.

#### **D. Partitioning and Disaggregation.**

Despite the Commission's good intentions, its partitioning and disaggregation rules have proven to be largely unsuccessful in assisting rural telephone companies and other small businesses to enter the wireless business. The problem is that the large national and regional carriers that control the licenses for most of the spectrum are not willing or able to devote the time and resources necessary to negotiate and implement arrangements on the scale desired by rural telephone companies. Put simply, most national and regional carriers are not willing to negotiate partitioning and disaggregation arrangements for areas that have less than a million "pops" (potential market population). Commissioner Copps recognized this problem in announcing the NOI in this proceeding. "While partitioning and disaggregation theoretically could accomplish this goal, there is no proof that they do so," the Commissioner said.

“Therefore, we should not rely on these tools to meet our statutory obligation until we gather far more information.”<sup>11</sup>

The Commission’s Spectrum Policy **Task** Force has recommended that the Commission “should expand the ability of spectrum users to partition their geographic service areas, or space, so that portions of their service areas that would otherwise lay fallow could potentially be put to use.” See *Spectrum Policy Task Force Report, supra* at p. 19. **SDTA** agrees with this recommendation

The Commission should revise the partitioning and disaggregation rules to better facilitate such transactions by providing large licensees with greater incentives to deal with rural carriers. Such incentives can include a larger reduction of a **buildout** requirement if a licensee partitions to a rural carrier, and/or a modified version of the cellular unserved area rule. These mechanisms would be an important improvement to the current situation; but they will not be effective as the only tool for rural entities to obtain spectrum, and smaller license areas in future auctions are still necessary. **As** Commissioner Copps correctly observed, “I will continue to push for RSAs to promote rural service, and will not rely on partitioning and disaggregation for this purpose.””

#### **E. Performance Requirements**

The use of performance requirements to ensure service to rural areas presents several thorny problems. If large license areas are sold at auction, most licensees can **satisfy** their performance requirements by serving only urban and suburban areas within the license territory

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<sup>11</sup> Statement of Commissioner **Michael J. Copps, In the Matter of Amendments to Parts 1, 2, 27, and 90 of the Commission’s Rules to License Services in the 216-220 MHz, 1390-1395 MHz, 1427-1429 MHz, 1429-1432 MHz, 1432-1435 MHz, 1670-1675 MHz and 2385-2390 MHz Government Transfer Bands (Report and Order), WT Docker No. 02-08**, statement released May 16, 2002.

In contrast, if the Commission strips a licensee of any unserved areas too early in the license period, it has arguably deprived the licensee of rights for which it paid valuable consideration. **As** discussed above, a possible solution is to adopt a modified version of the cellular “fill in” rule, in order to give rural interests an opportunity to serve portions of a larger license that remain unserved after a reasonable period of time has passed. However, it is important *to* give the incumbent licensee the opportunity to serve such areas before they are stripped away

This issue further underscores the importance of using the MSA/RSA licensing scheme in the future. If MSA/RSA licenses are awarded, larger licensees generally do not end up with rural areas that they will decline to serve. And rural carriers that obtain RSA licenses will by definition be serving rural areas when they construct their licensed system.

#### **F. Band Manager Licensing**

The NOT inquires (at para. **26**) as to whether a band manager licensing approach would make it easier for rural telcos to obtain access to spectrum, and facilitate service to rural areas. **SDTA** believes that this approach would not be workable for most rural wireless services. Rural wireless projects generally involve high construction costs (because of the vast spaces and rugged terrain that must be covered), and reduced revenue expectations (because of the **low** population density). Most rural telcos will be reluctant to undertake these risks if the entire project hinges on a mere lease right, rather than ownership of an FCC license. **And** as discussed above, the spectrum lease concept is not supported by certain RUS loans. Therefore, while **SDTA** supports the adoption of a *voluntary* spectrum lease concept as a limited tool to assist rural carriers obtain spectrum, it does not support the *mandatory* lease requirement that is the basis of the band manager concept

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<sup>12</sup> *Id.*

### **G. Technical and Operational Rules.**

SDTA supports the concept of allowing increased power levels for rural telecommunications systems. A major consideration in any rural system design is cost. A stumbling block has always been the exorbitant expense of deploying dozens of costly low power transmitters to cover stretches of roadways connecting small rural towns. And it is even more costly to deploy transmitters covering the scattered ranches and farms beyond the highways, where the population density is even less.

SDTA recognizes that there must be safeguards to ensure that high power operations in rural areas do not interfere with urban or suburban operations. However, given the remoteness of most rural areas from major markets, it should be feasible to create such safeguards. A key to this task will be the adoption of clear-cut interference definitions and protections.

### **H. The Commission Should Create Additional Spectrum for Unlicensed Operations, But Must Protect Incumbents From Interference and Undue Economic Impact in the Licensed Bands.**

SDTA supports the concept of identifying additional spectrum for unlicensed radio operations, such as “Wi-Fi” (wireless fidelity). Low power unlicensed technologies are revolutionizing telecommunications, by allowing the fast and inexpensive deployment of wireless broadband access. SDTA is aware that some rural carriers (like Hickory Tech in neighboring Minnesota) are already successfully providing unlicensed wireless services in rural areas, and have been able to extend the reach of their xDSL service to remote subscribers as a result.

In addition, the Commission should explore allowing unlicensed operations to operate with higher power levels in rural areas, in order to gain a more efficient use of the spectrum. However, if the Commission considers allowing operation of unlicensed devices on spectrum

that is already licensed to other entities,<sup>13</sup> it is important to ensure that there are no adverse consequences for the incumbent licensees. In many cases, these incumbents paid substantial sums for their licenses at auction, and are in the process of expending even greater resources on equipment, engineering, site acquisition, and other construction costs. It would be inequitable and adverse to the public interest to compromise their operations in any way.

In this regard, it is often difficult to identify a source of interference, especially when the offender is not licensed. Consumers purchasing an unlicensed device at RadioShack or similar retail outlets are unlikely to read the “fine print” about operating on a non-interfering basis, and likely will not have the know-how or incentive to observe the restriction, even if they become aware of it. The Commission can take official notice that, even where the identity of the interference source is known, it often takes weeks or months to remedy the problem, even when the Commission becomes involved. Moreover, SDTA shares the Spectrum Policy Task Force’s concern that unlicensed users may claim “squatter’s rights”. *See Spectrum Policy Task Force Report, supra* at p. 58. Therefore, it is important that the Commission study this proposal carefully, and establish the permissible interference levels below which unlicensed devices could safely operate on licensed spectrum. The Commission should then set the ceiling far enough below this maximum interference level that incumbent licensees can be assured of no interference. In some instances, allowing unlicensed “underlay” operations may not be appropriate.

The Task Force also proposes that “opportunistic” unlicensed radios be allowed to operate on licensed spectrum at power levels *above* the interference “temperature” limit to be established by the Commission (Report at p. 56). SDTA believes that such opportunistic

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<sup>13</sup> This proposal is under consideration in connection with the Commission’s Spectrum Policy Task Force

operations should only be allowed pursuant to a spectrum lease or other negotiation with the incumbent licensee. It is clear that such operations *will* create the potential for interference. **As** discussed above, even if there are clear cut incumbent protection rights on the books, enforcement can be difficult. Therefore, the incumbent licensee should be in a position to decide whether to risk such situation, and should be compensated for taking the risk. Higher powered unlicensed operations should not be imposed on incumbents by virtue of government-granted spectrum “easements”.

In this regard, the Commission must recognize not only the potential for interference from unlicensed operations, but also the potential economic impact on incumbents. This is especially true in rural areas. It is now clear that licensed providers of third-generation (**3G**) wireless services must incorporate Wi-Fi-type unlicensed access into their service offering, in order to compete.<sup>14</sup> Therefore, it may be counterproductive to create the possibility that unlicensed users can “set up shop” on a new licensee’s spectrum, at the same time when the licensee is trying to establish its nascent business.

#### **I. Eligible Telecommunications Carriers**

**SDTA** believes that the excessive and unrestrained designation of wireless carriers as Competitive Eligible Telecommunications Carriers in rural telephone company service areas has done virtually nothing to enhance the availability of affordable and reasonably comparable telecommunications services in Rural America. Rather, its principal impact has been to threaten the viability and sustainability of the entire Universal Service Fund (USF) program. The amount of portable USF support provided to wireless CETCs has skyrocketed from nothing in 1998 to

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Report proceeding. See *Spectrum Policy Task Force Report, supra* at pp.56-59.

\$440 thousand in 1999 to \$213 million in 2000 to \$1127 million in 2001 to \$6868 million in 2002 to a projected \$10185 million in 2003.<sup>15</sup> Not only is portable support to wireless **CETCs** the fastest growing segment of the USF, but it may increase by as much as \$2 billion or more during the next few years if the Commission and state commissions do nothing to restrict wireless carriers from seeking the free federal dollars available as portable USF support for customers having or obtaining "billing addresses" in rural telephone company service areas.

Section 214(e)(2) of the Communications Act requires state commissions (and this Commission where state commissions lack jurisdiction over wireless applicants for CETC status) to make a public interest finding before designating **CETCs** in areas served by rural telephone companies. **All** too often, this Commission and most state commissions have abdicated this responsibility by granting virtually all requests for CETC status on the ground that "competition" will be "enhanced," without considering the costs and benefits of such designations with respect to rural telecommunications services, service quality, infrastructure investment and rates.

Unfortunately, the major result of these liberal wireless CETC designations has been to give wireless CETCs truckloads of federal dollars for their existing customers that report "billing addresses" in rural telephone company service areas, without any comparable increase in wireless investment or service in the rural areas. SDTA and other rural telephone company representatives have asked both the Commission and the Universal Service Administrative Company (**"USAC"**) to investigate situations where it appears that wireless CETCs and/or their customers may be "gaming" the system by obtaining "billing addresses" in rural telephone

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<sup>14</sup> See Andrew M. Seybold, *Will 2003 Be The Year of the Hotspot?*, Forbes/Andrew Seybold's Wireless Outlook, January 1, 2003; Jim Krane, *IBM, AT&T and Intel Form New Company to Provide High-Speed Wireless Internet Access*, Associated Press, December 5, 2002.

<sup>15</sup> Organization for the Promotion and Advancement of Small Telecommunications Companies, Universal Service In Rural America: A Congressional Mandate At Risk (January 2003) at Table 3.

company service areas (where portable USF support is available) for customers who use the affected wireless phones predominately in other areas. In South Dakota, there have been persistent rumors that many people (both tribal members and non-members) residing in Rapid City and other areas outside the Pine Ridge Reservation have been encouraged to report "billing addresses" on the Reservation in order to obtain wireless service subsidized by the portable USF support available on the Reservation. On December 12, 2002, SDTA asked USAC to investigate entries in its Federal Universal Service Support Mechanisms Fund Size Projection for the First Quarter 2003, dated November 1, 2002, indicating that Western Wireless had sought portable USF support for 30,108 "working loops" in South Dakota during the First Quarter of 2003 (i.e., \$227,197 in portable High Cost Loop Monthly Support during the quarter, or an annualized amount of \$2,726,364). SDTA believes that the Western Wireless claim of 30,108 loops is extremely high in light of the fact that the total 2000 population of the Pine Ridge Reservation (the only portion of South Dakota for which Western Wireless was entitled to receive USF for the First Quarter 2003) was only 14,068 (and contained only 3,922 housing units). U.S. Census Bureau, Census 2000 Summary File 1, Table GCT-PHI. To date, SDTA is not aware whether the matter is being investigated actively.

In sum, SDTA believes that the current system of providing portable USF support to wireless CETCs has resulted in much more "gaming" of the "billing addresses" of existing wireless customers than new wireless investment in rural areas. Unfortunately, the major impact has been to increase the size of the USF, and to threaten the continuing availability of USF support for rural areas and residents that will not have affordable and reasonably comparable telecommunications service without it

**III. CONCLUSION**

It is respectfully requested that the Commission take the above concerns into consideration in fashioning any rule proposal on the basis of the NOI in this proceeding

Respectfully Submitted,

**South Dakota Telecommunications Association**

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