

FOR MAIL DELIVERY

Before the
Federal Communications Commission
Washington, D.C. 20554

SEP 28 1 2 2004

- 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
2000 Biennial Regulatory Review Spectrum Aggregation Limits For Commercial Mobile Radio Services
Increasing Flexibility To Promote Access to and the Efficient and Intensive Use of Spectrum and the Widespread Deployment of Wireless Services, and To Facilitate Capital Formation

REPORT AND ORDER
AND FURTHER NOTICE OF PROPOSED RULE MAKING

Adopted: July 8, 2004

Released: September 27, 2004

Comment Date: 30 Days from Publication in the Federal Register

Reply Comment Date: 60 Days after Publication in the Federal Register

By the Commission: Chairman Powell issuing a statement; Commissioners Copps and Adelstein approving in part, dissenting in part and issuing separate statements.

TABLE OF CONTENTS

Table with 2 columns: Heading and Paragraph #. Includes sections like I. INTRODUCTION AND EXECUTIVE SUMMARY, II. BACKGROUND, III. REPORT AND ORDER, etc.

2. Increasing Power Limits for Certain Services .....	85
3. Infrastructure Sharing .....	105
4. Rural Radiotelephone Service/Basic Exchange Telecommunications Radio Service .....	125
IV. FURTHER NOTICE OF PROPOSED RULE MAKING.....	130
A. Introduction .....	130
B. Background .....	135
C. Discussion .....	146
1. Existing Market-Based Models .....	146
2. "Keep What You Use" Re-licensing Measures .....	151
3. Renewal Term Substantial Service Requirements.....	157
4. Other Alternatives.....	159
V. PROCEDURAL MATTERS .....	161
A. Final Regulatory Flexibility Analysis .....	161
B. Final Paperwork Reduction Act of 1995 Analysis.....	162
C. Initial Regulatory Flexibility Analysis.....	166
D. Initial Paperwork Reduction Act of 1995 Analysis .....	167
E. <i>Ex Parte</i> Rules – Permit-But-Disclose Proceeding.....	168
F. Comment Dates .....	169
VI. ORDERING CLAUSES .....	177

## APPENDICES:

Appendix A – Rule Changes

Appendix B – Final Regulatory Flexibility Analysis

Appendix C – Initial Regulatory Flexibility Analysis

Appendix D – List of Commenting Parties

**I. INTRODUCTION AND EXECUTIVE SUMMARY**

1. Over the past decade, most Americans have enjoyed dynamic growth in the variety and quality of wireless service offerings available to them, as well as increased choice among facilities-based telecommunications service providers.<sup>1</sup> The Commission is committed to ensuring that this success is enjoyed by all Americans in all areas of the country “so far as possible.”<sup>2</sup> This *Report and Order* adopts

<sup>1</sup> In its *Eighth Competition Report*, released last year, the Commission found that “[c]ontinued downward price trends, the continued expansion of mobile networks into new and existing markets, high rates of investment, and churn rates of about 30 percent, when considered together with the other metrics, demonstrate a high level of competition for mobile telephone consumers.” See Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, *Eighth Report*, 18 FCC Rcd 14783, 14812 ¶ 57 (2003) (*Eighth Competition Report*). The Commission also noted that 95 percent of the total U.S. population live in counties with access to three or more different mobile telephony providers, and 83 percent of the population live in counties with five or more competing mobile telephony providers. See *id.* at 14793-94, 14823 ¶¶ 18, 84.

<sup>2</sup> See 47 U.S.C. § 151 (stating that the Commission’s primary mission is the promotion of “communication by wire and radio so as to make available, so far as possible, to all the people of the United States, without discrimination on the basis of race, color, religion, national origin, or sex, a rapid, efficient, Nation-wide, and world-wide wire and radio communication service”); see also Mission Statement of the FCC Strategic Plan, available at <<http://www.fcc.gov/omd/strategicplan/>>.

several measures intended to increase the ability of wireless service providers to use licensed spectrum resources flexibly and efficiently to offer a variety of services in a cost-effective manner. By our actions today, we take steps to promote access to spectrum and facilitate capital formation for entities seeking to serve rural areas or improve service in rural areas.<sup>3</sup> We expect these decisions will facilitate the deployment of new and advanced wireless services, including broadband services, and thereby foster much-needed economic development. The actions we adopt in the *Report and Order* are derived from those proposed in the *Notice of Proposed Rule Making* in this proceeding.<sup>4</sup>

2. In this *Report and Order*, we modify certain regulations and policies in order to facilitate the deployment of wireless services in rural areas. Specifically, we take the following actions:

- As an initial matter, we examine the various definitions that are used to describe “rural areas” and establish the presumption that, on a going-forward basis, and unless otherwise specified in the context of specific policies or regulations governing wireless communications services, counties with a population density of 100 persons per square mile or less constitute “rural areas” for purposes of our wireless spectrum policies.
- Second, we take a close look at some of our policies affecting access to spectrum and the provision of service in rural areas. In particular, we consider our policies governing the licensing of spectrum, both with respect to initial licensing through the competitive bidding process as well as subsequent re-licensing after an authorization is returned to the Commission. We affirm that we will continue to establish licensing areas on a service-by-service (or band-by-band) basis as appropriate, based upon the flexibility that such an approach provides and our past experience in determining the initial size of service areas. We also reaffirm that when developing rules for licensing individual services, we will consider using smaller service areas in some spectrum blocks in order to encourage deployment in rural areas for the service in question.
- Third, we take steps to facilitate increased access to capital for rural licensees. We eliminate the remaining components of the cellular cross-interest rule that currently apply only in rural service areas and transition to case-by-case review for cellular transactions, while closely examining those that present a significant likelihood of substantial competitive harm in a market. We also revise our policies governing security interests in wireless licenses and permit licensees, at their option, to grant such interests to the Department of Agriculture’s Rural Utilities Service (RUS), subject to the Commission’s prior approval of any transfer of control.
- Fourth, we take several actions to increase licensee flexibility and permit more cost-effective coverage of rural areas. We amend our regulations to increase permissible power levels for base stations in certain wireless services that are located in rural areas or that provide coverage to

---

<sup>3</sup> This *Report and Order* takes action affecting the provision of commercial and private terrestrial wireless services. While the policies and regulations discussed herein are targeted to promote wireless services in rural areas, we note that certain of our actions will likely have broader application to non-rural areas as well.

<sup>4</sup> Facilitating the Provision of Spectrum-Based Services to Rural Areas and Promoting Opportunities for Rural Telephone Companies to Provide Spectrum-Based Services, WT Docket No. 02-381, 2000 Biennial Regulatory Review Spectrum Aggregation Limits for Commercial Mobile Radio Services, WT Docket No. 01-14, Increasing Flexibility to Promote Access to and the Efficient and Intensive Use of Spectrum and the Widespread Deployment of Wireless Services, and to Facilitate Capital Formation, WT Docket No. 03-202, *Notice of Proposed Rulemaking*, 18 FCC Rcd 20802 (2003) (*Rural NPRM*).

otherwise unserved areas. By this action, we anticipate that coverage of such areas will be more economical, as licensees may provide increased coverage of rural areas using fewer base stations and less associated infrastructure. We also amend our regulations to permit certain geographic-area licensees to provide substantial service as a means of complying with their construction requirements, thus countering existing disincentives to build out less densely populated areas.<sup>5</sup> Finally, we clarify our policies governing infrastructure sharing and discuss the various types of infrastructure arrangements that parties generally may enter into without the need for Commission review.

3. In the *Further Notice*, we seek to expand upon the record received in response to the *Rural NPRM* with respect to additional measures that the Commission can take in order to promote access to spectrum in rural areas. Specifically, we seek additional comment on adopting an unserved-area or “keep what you use” re-licensing process for current and future wireless services. Although evidence suggests that, on the whole, our current policies are working to provide wireless services in rural areas, the *Further Notice* asks whether there are additional measures, such as adopting a “keep what you use” approach to reclaim and re-license “unused” spectrum, that may complement existing market-based mechanisms. Among other inquiries, the *Further Notice* seeks comment on whether such measures are likely to spur the delivery of wireless services to rural areas. The *Further Notice* also seeks to build upon the *Rural NPRM* record by asking whether additional performance requirements might be appropriate for license terms subsequent to initial renewal.

## II. BACKGROUND

4. One of the Commission’s primary statutory obligations, as well as one of its principal public policy objectives, is to facilitate the widespread deployment of facilities-based communications services to all Americans, including those doing business in, residing in, or visiting rural areas. In December 2002, the Commission released a *Notice of Inquiry* that sought comment on the effectiveness of its existing regulatory tools in promoting service to rural areas and asked how we could modify our policies to further encourage the provision of wireless services in rural areas.<sup>6</sup> In a follow-up *Notice of Proposed Rule Making*, released in October 2003, the Commission sought to build upon the record developed in response to the *Rural NOI* and sought comment regarding a variety of proposals to eliminate unnecessary regulatory barriers and encourage the deployment of spectrum-based services in rural areas.<sup>7</sup> The *Rural NPRM* focused on measures that would increase flexibility, reduce regulatory costs of providing service to rural areas, and promote access to both spectrum and capital resources for entities seeking to provide wireless services in rural areas. Among other issues, the *Rural NPRM* sought comment on the following policies and proposals: (1) determining an appropriate definition for “rural area” for purposes of implementing Commission policies; (2) promoting access to “unused” spectrum; (3) extending a “substantial service” construction option to all geographic-area licensees; (4) determining whether geographic-area licensees should satisfy additional construction requirements after their initial

---

<sup>5</sup> We note that we do not modify the performance requirements for MDS/ITFS and 70/80/90 GHz licensees, as discussed *supra* Section III.D.1.

<sup>6</sup> Facilitating the Provision of Spectrum-Based Service to Rural Areas and Promoting Opportunities for Rural Telephone Companies to Provide Spectrum-Based Services, WT Docket No. 03-281, *Notice of Inquiry*, 17 FCC Rcd 25554 (2002) (*Rural NOI*).

<sup>7</sup> See generally *Rural NPRM*, 18 FCC Rcd at 20808.

license term; (5) increasing power limits in rural areas for licensed services; (6) evaluating the appropriate initial size of licensing areas for geographic-area licenses; (7) fostering our partnership with RUS and determining whether additional measures should be taken to complement the RUS loan programs; (8) considering whether to modify long-held restrictive policies on security interests in licenses by permitting licensees to offer RUS security interests in their licenses; (9) considering modification or elimination of the cellular cross-interest rule in Rural Service Areas (RSAs); (10) clarifying our policies with respect to infrastructure sharing; and (11) updating and amending our rules governing the Rural Radiotelephone Service (RRS) and Basic Exchange Telephone Radio Systems (BETRS).

5. In response to the *Rural NPRM*, we received 30 comments and 20 reply comments.<sup>8</sup> Of these comments, many indicated that our market-oriented policies have been working to promote competitive service in rural areas.<sup>9</sup> Further, several commenters noted that the Commission should continue to allow these market-oriented policies to work and avoid mandating additional coverage that might result in uneconomic and unsustainable deployment.<sup>10</sup> For example, Nextel Communications urged the Commission to avoid micromanaging the market “by mandating a range of ‘spectrum access’ options that look more like ‘forced access.’”<sup>11</sup> Commenters specifically referenced the Commission’s recent actions to remove regulatory barriers to spectrum leasing and noted that secondary markets should be given an opportunity to work before intervening in the marketplace to force access to spectrum.<sup>12</sup> We note that although we received numerous comments indicating that the rural marketplace is competitive, at least with respect to Commercial Mobile Radio Services (CMRS), we also received comments to the contrary.<sup>13</sup>

6. As discussed below, we agree with the majority of commenters that the Commission’s market-oriented policies largely have been successful in promoting facilities-based competition in the rural marketplace, especially with respect to CMRS.<sup>14</sup> These market-oriented policies, acting in concert with more historical licensing policies, such as the cellular unserved area process,<sup>15</sup> have resulted in the widespread provision of wireless services, including in rural areas. As the Commission noted in the *Eighth Competition Report*, 95 percent of the total U.S. population live in counties with access to three or

---

<sup>8</sup> In addition, 18 parties filed *ex-parte* and late-filed comments as of July 7, 2004.

<sup>9</sup> See, e.g., AT&T Wireless Comments at 2, 6, Cingular Comments at 3-5, 9, 11, Dobson Comments at 2-5, AT&T Wireless Reply Comments at 3-4, Nextel Communications Reply Comments at 2, Western Wireless Reply Comments at 2-3.

<sup>10</sup> Cingular Comments at 3-4; NTCA Comments at 4, Sprint Reply Comments at 7.

<sup>11</sup> Nextel Communications Reply Comments at 10.

<sup>12</sup> Cingular Comments at 2, 4-5, 9, Dobson Comments at 2-3, 9-10; Nextel Partners Reply Comments at 7, Southern LINC Reply Comments at 10, T-Mobile Reply Comments at 3, Western Wireless Reply Comments at 12.

<sup>13</sup> See OPASTCO/RTG Reply Comments at 4.

<sup>14</sup> See *supra* notes 1, 9.

<sup>15</sup> The unserved area licensing process is discussed in more detail *infra* Section III.B.2.

more different mobile telephony providers.<sup>16</sup> Moreover, we are optimistic that recent Commission initiatives will encourage the further deployment of new and advanced wireless services in rural areas, including broadband services. For example, our *Secondary Markets Report and Order* adopted rules and policies to facilitate broad access to spectrum resources by enabling a wide array of facilities-based providers of broadband and other communications services to enter into spectrum leasing arrangements with Wireless Radio Service licensees.<sup>17</sup> Other ongoing initiatives seek to increase licensee flexibility and promote spectrum access through the development of advanced technologies such as cognitive radios.<sup>18</sup> These initiatives complement existing programs and regulations that, in our estimation, already are working to promote wireless service in rural areas. These existing measures include small business bidding credits<sup>19</sup> and partitioning and disaggregation.<sup>20</sup> As the Commission noted in the *Rural NPRM*, available data indicates that wireless service providers have taken advantage of these existing regulatory mechanisms.<sup>21</sup> As of June 2004, the Commission has completed 39 auctions for terrestrial wireless licenses. 77 percent of the winning bidders in these auctions claimed eligibility status as a “small business” and were the winning bidder for 52 percent of the licenses sold.<sup>22</sup> Furthermore, within the 39 completed auctions, 12 percent of winning bidders self-certified as being rural telephone companies

---

<sup>16</sup> See *Eighth Competition Report*, 18 FCC Rcd at 14793-94 ¶ 18.

<sup>17</sup> Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets, WT Docket No. 00-230, *Report and Order and Further Notice of Proposed Rulemaking*, 18 FCC Rcd 20604 (2003) (*Secondary Markets Report and Order and Secondary Markets Further Notice*); Erratum, 18 FCC Rcd 24817 (2003).

<sup>18</sup> See Facilitating Opportunities for Flexible, Efficient, and Reliable Spectrum Use Employing Cognitive Radio Technologies, ET Docket No. 03-108, *Notice of Proposed Rulemaking and Order*, FCC 03-322 (2003) (*Cognitive Radio NPRM*).

<sup>19</sup> See Implementation of Section 309(j) of the Communications Act – Competitive Bidding, PP Docket No. 93-253, *Second Report and Order*, 9 FCC Rcd 2348, 2350 ¶ 6 (1994) (*Competitive Bidding Second Report and Order*); see also Extending Wireless Telecommunications Services to Tribal Lands, WT Docket No. 99-266, *Report and Order and Further Notice of Proposed Rulemaking*, 15 FCC Rcd 11794 (2000).

<sup>20</sup> Partitioning and disaggregation is permitted in the 218-219 MHz Service (47 C.F.R. § 95.823); 220 MHz Service (47 C.F.R. § 90.1019); 800 MHz (47 C.F.R. § 90.911) and 900 MHz Services (47 C.F.R. § 90.813); Specialized Mobile Radio (SMR) Service, 24 GHz Service (47 C.F.R. § 101.535); 39 GHz Service (47 C.F.R. § 101.56); Local Multipoint Distribution Service (LMDS) (47 C.F.R. § 101.1111); Location and Monitoring Service (LMS) (47 C.F.R. § 90.365); Multiple Address Systems (MAS) (47 C.F.R. § 101.1323); Multipoint Distribution Service (MDS) (47 C.F.R. § 21.931); Maritime Services (47 C.F.R. § 80.60); Paging and Radiotelephone Service (47 C.F.R. § 22.513); Cellular Radiotelephone Service (47 C.F.R. § 22.948); broadband Personal Communications Services (PCS) (47 C.F.R. § 24.714); narrowband PCS (47 C.F.R. § 24.104); and all Part 27 services (47 C.F.R. §§ 27.15, 27.605).

<sup>21</sup> *Rural NPRM*, 18 FCC Rcd at 20805 ¶ 3.

<sup>22</sup> For purposes of this analysis, “small businesses” includes all winning bidders that claimed eligibility status as a small or very small business for the purposes of qualifying for bidding credits. The data for this analysis was obtained from publicly available information on the Commission’s Auctions website. See <<http://wireless.fcc.gov/auctions>>.

(rural telcos), as that term is defined by the Communications Act.<sup>23</sup> With respect to partitioning and disaggregation, the Commission's analysis of available data indicates that 13.5 percent of all assignees have voluntarily identified themselves as rural telcos.<sup>24</sup> In its comments, AT&T Wireless noted that it has "entered into more than a dozen partitioning or disaggregation transactions in 2003 alone, most with small entities," and that the Commission's partitioning and disaggregation rules "are working, and working well, in providing opportunities for rural carriers and speeding service to rural areas."<sup>25</sup> We also note that there are explicit funding programs available to support the provision of wireless services in rural areas, including Universal Service Fund support for service in high cost areas and RUS funds for the deployment of broadband services.

7. Not only has the Commission taken steps to increase licensee flexibility and promote spectrum access, we are encouraged to learn from the record in this proceeding that licensees are taking proactive measures to promote wireless deployment in rural areas. For example, Nextel Partners indicates that, in cooperation with Nextel, it provides "customers in high cost rural areas and smaller markets the same national network and the same fully integrated four-in-one bundle of services available from Nextel in urban areas."<sup>26</sup> Nextel Partners states that it "was established specifically for the business purpose of deploying state-of-the-art national wireless service in the smaller markets, including rural areas, and the company has grown from covering about 6,000,000 [persons] at the end of 1999 to covering more than 37,000,000 [persons] in 31 states with more than 1.05 million subscriber lines."<sup>27</sup> AT&T Wireless states that "it is aggressively extending its GSM/GPRS/EDGE footprint into rural markets through new construction, joint ventures, and roaming agreements with other carriers, and it has entered into numerous agreements to partition rural markets to smaller entities."<sup>28</sup> Dobson's comments also indicate that it is aggressively deploying wireless services in rural areas, stating that, among other efforts, it "will have invested approximately \$24 million in Alaska in 2003 and 2004 to improve wireless service statewide," and that, since the release of the *Rural NOI*, it has "entered into GSM/GPRS roaming agreements with two additional nationwide carriers," such that it "is able to offer its rural and suburban customers nationwide service and will also be able to provide advanced wireless services to customers throughout the United States and perhaps the world someday."<sup>29</sup> Dobson states that it "recognizes the growth opportunities afforded in rural areas, and has developed its business strategy to focus on these areas."<sup>30</sup> Likewise, other carriers note that they have taken proactive steps to provide wireless services to

<sup>23</sup> See 47 U.S.C. § 153(37) (defining "rural telephone company"). We note that the list of entities self-certifying as rural telcos and the list of entities that claimed eligibility as "small businesses" are not mutually exclusive.

<sup>24</sup> See *Rural NOI*, 17 FCC Rcd at 25559 ¶ 8.

<sup>25</sup> AT&T Wireless Reply Comments at 7. Not all commenters, however, agreed that our partitioning and disaggregation procedures have been successful in promoting the deployment of wireless services in rural areas. See OPA/STCO/RTG Comments at 10-11; Blooston Comments at 11-12. We address these issues in the *Further Notice*, see *infra* Section IV.C.1 ¶¶ 147-152.

<sup>26</sup> Nextel Partners Comments at 2.

<sup>27</sup> Nextel Partners Reply Comments at 4.

<sup>28</sup> AT&T Wireless Reply Comments at 4.

<sup>29</sup> Dobson Comments at 6-7.

<sup>30</sup> *Id.* at 7.

rural areas, such as through joint ventures<sup>31</sup> and infrastructure-sharing arrangements.<sup>32</sup> We commend these voluntary initiatives and urge carriers and equipment providers to continue their proactive efforts to provide services to rural areas.

8. In light of the record developed in response to the *Rural NPRM*, we conclude that our market-oriented policies, in tandem with substantial capital investment by licensees, generally have led to the growth of valuable, productivity-enhancing wireless services to a vast majority of Americans, including many who reside, work, or travel in rural areas. Nevertheless, we also conclude that there are additional steps that we can take in order to promote greater deployment of wireless services in rural areas, such as eliminating disincentives to serve or invest in rural areas, and helping to reduce the costs of market entry, network deployment and continuing operations.

### III. REPORT AND ORDER

#### A. Definition of "Rural"

9. *Background.* In the *Rural NPRM*, the Commission requested comment on an appropriate definition of a "rural area" for use in conjunction with each of the policies addressed in this proceeding.<sup>33</sup> The Commission sought comment on whether a uniform definition of a "rural area" would be appropriate, or whether the definition of a "rural area" should differ depending upon the particular regulatory initiative at issue.<sup>34</sup> The Commission discussed various definitions that are currently used by the Commission or by other federal agencies as proxies for "rural," and sought comment on whether one or more of these definitions would be appropriate.<sup>35</sup> Specifically, the Commission sought comment on the following potential definitions: (1) counties with a population density of 100 persons or fewer per square mile;<sup>36</sup> (2) RSAs;<sup>37</sup> (3) non-nodal counties within an Economic Area (EA) as defined by the

<sup>31</sup> See AT&T Wireless Comments at 4-5 (describing its "RoadRunner" project with Cingular, which is "designed to provide state-of-the-art GSM/GPRS/EDGE service to their customers and roamers along more than 4000 miles of select major highways in rural parts of the country").

<sup>32</sup> See Ericsson Comments at 2 (noting that Ericsson has entered into agreements with three separate rural market operators "to migrate their TDMA wireless networks to GSM through a shared infrastructure arrangement" and that these "agreements will allow these operators to deploy a full-featured GSM network with less capital and operational expenses than traditional buildouts . . .").

<sup>33</sup> See *Rural NPRM*, 18 FCC at 20809-11 ¶¶ 10-12.

<sup>34</sup> See *id.* at ¶ 10.

<sup>35</sup> See *id.* at ¶ 12.

<sup>36</sup> See *Eighth Competition Report* at 14837 ¶ 113; see also Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act – Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services, *Seventh Report*, 17 FCC Rcd 12985, 13022 (2002) (*Seventh Competition Report*). This definition was first suggested by a participant at the Commission's CMRS Competition Report Public Forum held in February 2002. See Commercial Mobile Radio Services (CMRS) Competition Report Public Forum <<http://wireless.fcc.gov/cmrs-crforum.html>> for access to participants' presentations and forum transcript. The transcript of the forum can be found at Public Hearing for 7th Annual CMRS Competition Report: Transcript of the Day's Event <<http://wireless.fcc.gov/services/cmrs/presentations/020228.pdf>> (Transcript).

<sup>37</sup> See *Eighth Competition Report* at 14837 ¶ 114; *Seventh Competition Report* at 13023.

Department of Commerce's Bureau of Economic Analysis;<sup>38</sup> (4) the definition for "rural" used by RUS for its broadband loan program;<sup>39</sup> (5) the definition for "rural area" used by the Commission in connection with universal service support for schools, libraries, and rural health care providers;<sup>40</sup> (6) the definition of "rural" based on census tracts as outlined by the Economic Research Service of the USDA;<sup>41</sup> (7) the Census Bureau definition of "rural" counties;<sup>42</sup> and (8) any census tract that is not within 10 miles of any incorporated or census-designated place containing more than 2,500 people, and is not within a county or county equivalent that has an overall population density of more than 500 persons per square mile of land. To the extent that commenters believed that none of the eight definitions provided in the *NPRM* are appropriate, the Commission asked commenters to identify specific, quantifiable factors that the Commission should consider when determining whether an area is a "rural area."<sup>43</sup>

10. *Discussion.* We conclude that it is appropriate to establish a baseline definition of "rural area" for purposes of our regulatory policies. Rather than discussing "rural areas" in abstract terms, we believe that a baseline definition will provide clarity in situations where the Commission does not otherwise specifically designate an alternative definition. As noted in the *Rural NPRM*, we believe that some clarification of the term is necessary in order to ensure that our policies are appropriately tailored to promote service to consumers in rural areas and ensure uniform understanding of how our regulatory proposals will be implemented and evaluated. In addition, by adopting a baseline definition of "rural area," we can facilitate the evaluation of our rural-oriented policies. By providing continuity with

---

<sup>38</sup> Each EA consists of one or more counties that are "Economic Nodes" and the surrounding counties that are economically related to it. An EA may have more than one economic node. The counties that are economic nodes are metropolitan areas or similar areas that serve as the EA's center(s) of economic activity. As a proxy for urban and rural geographic areas, we looked at counties that make up economic nodes, *i.e.*, nodal counties, versus those counties that do not make up economic nodes, *i.e.*, non-nodal counties. See *Eighth Competition Report* at 14836 ¶ 112; see also *Seventh Competition Report* at 13022.

<sup>39</sup> See 7 C.F.R. § 1738.2. A rural area, as characterized in RUS loan programs, is any incorporated or unincorporated place in the United States, its territories and insular possessions (including any area within the Federated States of Micronesia, the Republic of the Marshall Islands, and the Republic of Palau) that: (1) Has no more than 20,000 inhabitants based on the most recent available population statistics of the Bureau of the Census and (2) Is not located in an area designated as a standard metropolitan statistical area.

<sup>40</sup> See 47 C.F.R. § 54.5. As applied to the Universal Service Program, a "rural area" is a nonmetropolitan county or county equivalent, as defined in the Office of Management and Budget's (OMB) Revised Standards for Defining Metropolitan Areas in the 1990s and identifiable from the most recent Metropolitan Statistical Area (MSA) list released by OMB, or any contiguous non-urban Census Tract or Block Numbered Area within an MSA-listed metropolitan county identified in the most recent Goldsmith Modification published by the Office of Rural Health Policy of the U.S. Department of Health and Human Services.

<sup>41</sup> See <<http://www.ers.usda.gov/briefing/rural/data/desc.htm>>. This definition was developed to assist with analyzing U.S. settlement systems. See <<http://www.ers.usda.gov/briefing/rurality/RuralUrbanCommutingAreas>>.

<sup>42</sup> The glossary on the Census website (<<http://factfinder.census.gov/servlet/BasicFactsServlet>>) defines "rural" as "Territory, population and housing units not classified as urban. 'Rural' classification cuts across other hierarchies and can be in metropolitan or non-metropolitan areas." The definition of "urban" is all populations in "Urbanized Areas," as defined by the Census, and populations of more than 2,500 people outside of urbanized areas.

<sup>43</sup> *Rural NPRM* at 20811 ¶ 12.

respect to the meaning of a “rural area,” we can form a basis for comparison of the effects of our “rural area” policies over time.

11. We establish a baseline definition of “rural area” as those counties (or equivalent) with a population density of 100 persons per square mile or less, based upon the most recently available Census data. The Commission first used this definition as a proxy definition in its annual CMRS Competition Report for purposes of analyzing the average number of mobile telephony competitors in rural versus non-rural counties. Our decision to adopt this specific definition over other possible definitions is based on several factors. In order to apply a specific definition to Commission policies, it is important that we not make the definition difficult to administer, or so narrowly tailored to only include what many refer to as the most rural areas. We believe this definition achieves an appropriate balance. As noted in the *Rural NPRM*, definitions based on county boundaries are easy to administer and understand, population data based on county boundaries are widely available to the public,<sup>44</sup> and county boundaries rarely change.<sup>45</sup> Moreover, the total population of the counties that fall within this definition of “rural area” closely tracks the Census Bureau’s overall population for non-urban areas; accordingly, although we do not adopt the same definition for “rural area” as the Census Bureau, we believe that we are targeting the same general population. This definition encompasses 2,331 U.S. counties with a total population of approximately 60 million people. These figures, based on the 2000 Census, correspond to approximately 72 percent of all U.S. counties and 21 percent of the total U.S. population.<sup>46</sup> Many commenters support our decision to adopt a definition of a rural area, and several commenters specifically support our decision to adopt a definition based on county boundaries.<sup>47</sup> RCA and Blooston both indicate that for purposes of imposing and administering operational requirements that counties with a population density of 100 persons per square mile or less would be an appropriate definition of a rural area.<sup>48</sup>

12. We recognize, however, that the application of a single, comprehensive definition for “rural area” may not be appropriate for all purposes. Indeed, the Commission stated in the *Rural NPRM* that there may be potential drawbacks of adopting a definition based solely on county boundaries,<sup>49</sup> and a

---

<sup>44</sup> For example, this information is available to the public on the Internet. See: <<http://quickfacts.census.gov/qfd/>>; <<http://www.census.gov/prod/cen2000/index.html>>.

<sup>45</sup> *Rural NPRM*, 18 FCC Rcd at 20811 ¶ 12. The Census Bureau states that, “because states, counties, and statistically equivalent entities are an integral part of many Census Bureau data presentations, they occupy a prominent position in the hierarchy of the basic geographic entities. Therefore, a major responsibility of the Census Bureau is to maintain accurate maps and records of the boundaries and names of these entities, and to identify their populations and other data items correctly.” The Census Bureau also notes that, “the boundaries of the primary governmental divisions of the United States, States, counties, and their statistical equivalents, generally are static and change only rarely.” See “States, Counties, and Statistically Equivalent Entities,” <<http://www.census.gov/geo/www/GARM/Ch4GARM.pdf>>, visited June 14, 2004.

<sup>46</sup> See <<http://wireless.fcc.gov/resources/ruralarea>> (providing a list of counties/county equivalents, including among other things, total population and population density for each area that meets this default definition of a “rural area”).

<sup>47</sup> See Blooston Reply Comments at 2; CTIA Comments at 4; RCA Comments at 5.

<sup>48</sup> See Blooston Reply Comments at 2; RCA Comments at 5.

<sup>49</sup> *Rural NPRM*, 18 FCC Rcd at 20811 ¶ 12.

few commenters similarly expressed concerns that a single definition will not suit all situations.<sup>50</sup> As noted in the *Rural NPRM*, there are several well-established definitions for “rural” utilized by federal agencies, and the Commission itself has employed different proxy definitions of “rural” in various proceedings.<sup>51</sup> We realize that definitions of a “rural area” previously adopted were tailored to specific policies, and that the 100 persons per square mile or less definition may not be a suitable alternative in all cases. We believe, therefore, that applying a comprehensive definition of “rural” to all policies as advocated by Southern LINC is not warranted and may instead have unintended results.<sup>52</sup> Rather than establish the 100 persons per square mile or less designation as a uniform definition to be applied in all cases, we instead believe that it is more appropriate to treat this definition as a presumption that will apply for current or future Commission wireless radio service rules, policies and analyses for which the term “rural area” has not been expressly defined. By doing so, we maintain continuity with respect to existing definitions of “rural” that have been tailored to apply to specific policies, while also providing a practical guideline.

### **B. Facilitating Access to Spectrum**

13. Entities seeking to serve rural areas can be prevented from doing so by lack of access to spectrum that has not yet been made available by the Commission or that is held by others in such areas. We do not believe spectrum is overly congested in rural areas, as demand for spectrum in rural areas will in many cases be less than demand in suburban or urban areas.<sup>53</sup> However, we regularly hear from rural carriers that they are unable to gain access to spectrum in rural markets, notwithstanding their interest and the presence of unused spectrum in the market.<sup>54</sup> We therefore review our policies that affect access to spectrum – including initial licensing determinations, subsequent regulatory oversight of the secondary market, and our re-licensing policies – to ensure that our policies facilitate access to spectrum in rural areas.

---

<sup>50</sup> See ITA Comments at 5; Itron Comments at 5-6. In its comments, Itron notes anomalies that may arise as a result of adopting a county-based definition for “rural area.” Itron states that population in counties may be unevenly distributed, such that a more populated center may nevertheless be classified as part of a rural county. Itron also states that counties are unevenly sized, such that a county on the East coast is generally a smaller geographic area than in the remainder of the country. See Itron Comments at 5-6. Itron also indicates that the use of a county-based definition could present implementation problems for utility companies that use Automatic Meter Reading (AMR) devices that operate on unlicensed frequencies. Itron states that AMR systems encompass wide areas that include both rural and urban areas, and that it could lose operating efficiencies if utilities must operate multiple AMR systems to accommodate higher-power unlicensed devices in rural counties and lower-power unlicensed devices in urban counties. *Id.* at 6.

<sup>51</sup> *Rural NPRM*, 18 FCC Rcd at 20809 ¶ 10. For example, the Commission, as noted, uses a specific definition of a rural area in connection with administering universal service support programs for schools, libraries, and rural health care providers. See 47 C.F.R. § 54.5.

<sup>52</sup> See Southern Linc Reply Comments at 2 – 4.

<sup>53</sup> CTIA Comments at 7 (a shortage of available spectrum has not been shown to be a significant obstacle to the deployment of wireless service to rural areas); Nextel Communications Reply at 2 (no evident access to spectrum problems in rural markets).

<sup>54</sup> See, e.g., Blooston Comments at 9 (does not seem to be an absence of knowledge about what spectrum is unused in rural areas, so much as there are obstacles to obtaining and using this spectrum).

14. In the following paragraphs, we focus on facilitating opportunities for entities seeking to serve rural areas to acquire spectrum both through initial licensing and through secondary market transactions. We believe that the approach we take in this proceeding will promote service in rural areas, consistent with market-based policies that have encouraged wireless carriers to increase capital spending on equipment and other infrastructure.<sup>55</sup> One of our key objectives is to ensure that carriers that seek to serve rural areas are not prevented from doing so either because they lack of access to adequate spectrum or because those that already have such spectrum lack adequate economic or regulatory incentives to share it. Moreover, we want to do what we can to ensure that spectrum rights flow to those who are willing and able to put the spectrum to use in rural markets. We recognize that this approach is not a panacea. Even where spectrum access is not a barrier to entry, there will be certain rural areas that are very difficult to serve because of high equipment costs, low population density, or other economic factors. Instead of attempting at this time to dramatically manipulate market-based spectrum policies that have yielded tremendous benefits in prices and services for the overwhelming majority of American consumers, we believe the better approach is to gain more experience with secondary markets and to seek additional comment in our *Further Notice* on measures to promote the provision of service in these high-cost and underserved areas by either existing carriers or new entrants.<sup>56</sup>

15. In the sections that follow, we explain how our initial definitions of spectrum licenses, along with our commitment to make substantial amounts of spectrum and licenses available,<sup>57</sup> should facilitate access to spectrum in rural areas. To facilitate such access, we will determine the size of geographic service areas on a service-by-service basis and create opportunities for small service areas as appropriate. In addition, we will continue our commitment to flexible secondary market policies that facilitate post-auction access to spectrum. We also seek comment in our *Further Notice* on additional steps that we might take to promote spectrum access. Our goal is to ensure that the highest valued use of spectrum is not affected significantly by regulatory methodologies that may artificially constrain the choice of the technology used and services provided.

### 1. Size of Geographic Service Areas

16. *Background.* For many wireless services, the Commission has adopted geographic-area

---

<sup>55</sup> See *Eighth Competition Report*, 18 FCC Rcd at 14818-19 ¶ 70 (while noting an apparent decline in wireless industry capital spending between 2002 and 2003, citing one report that, since 1996, capital spending on wireless networks has grown at nearly three times the rate of growth of spending on wireline and a second report that in 2002 such carriers spent more on capital expenditures than in any year with the exception of 2001).

<sup>56</sup> We also note that providing incentives for existing carriers and new entrants to serve areas that they would not otherwise serve (or sooner than they would) is one objective of the Commission's Universal Service Fund proceeding. See, e.g., Federal State Joint Board on Universal Service, CC Docket No. 96-45, *Report and Order*, 12 FCC Rcd 8776, 8880 (1997) (encouraging state commissions to designate service areas that require incumbent local exchange carriers to serve areas that they have not traditionally served). In addition, we address competition in rural markets in our annual report on the state of CMRS competition (see, e.g., *Eighth Competition Report*, 18 FCC Rcd at 14834-38 ¶¶ 107-121).

<sup>57</sup> See, e.g., Automated Maritime Telecommunications System Spectrum Auction Schedule for September 15, 2004, *Public Notice*, DA 04-1513 (May 26, 2004); Broadband PCS Spectrum Auction Scheduled for January 12, 2005, *Public Notice*, DA 04-1639 (June 18, 2004).

licensing.<sup>58</sup> In contrast to site-based licensing, geographic-area licensing provides licensees with flexibility to respond to demand within a geographic market without the need for additional licensing or authorization by the Commission.<sup>59</sup> When determining the size of geographic service areas, the Commission, after seeking comment, considers a number of factors including the nature of the service or services to be provided and the likely users. The Commission has designated various sizes of geographic service areas in order to encourage participation in spectrum auctions and to facilitate deployment of wireless services.<sup>60</sup>

17. The Act directs the Commission to design competitive bidding systems to promote “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 by disseminating licenses among a wide variety of applicants, including small businesses, rural telephone companies, and businesses owned by minority groups and women.”<sup>61</sup> Thus, the determination of geographic area sizes becomes an integral part of a system designed to disseminate licenses for a broad array of uses.

18. In the *Rural NPRM*, the Commission requested comments on the appropriate size of geographic markets in rural areas. The Commission recognized that the initial size of geographic service areas plays an important role in providing the requisite access to spectrum that would stimulate competition and result in greater wireless services in rural areas.<sup>62</sup> The Commission stated that it intends to continue establishing geographic areas on a service-by-service basis, and sought comments on this

---

<sup>58</sup> See, e.g., Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands, *Report and Order*, 18 FCC Rcd 25162, 25175-77 ¶¶ 35-40 (2003) *reconsideration pending (AWS Report and Order)*; Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59), *Report and Order*, 17 FCC Rcd 1022, 1058-62 ¶¶ 89-96, *reconsideration Memorandum Opinion and Order*, 17 FCC Rcd 11613 (2002) (*Lower 700 MHz Report and Order*).

<sup>59</sup> See *Lower 700 MHz Report and Order*, 17 FCC Rcd at 1058-59 ¶ 89 & n. 256.

<sup>60</sup> The smallest geographic service areas licensed by the Commission are RSAs and Metropolitan Statistical Areas (MSAs), of which there are 734 licenses comprising the U. S. and its territories. MSAs and RSAs are collectively known as “Cellular Market Areas” (CMAs). Spectrum also has been licensed based on Economic Area Groupings (EAGs), which consist of six licensing areas for the entire country. Some terrestrial wireless services, such as narrowband PCS and 1670-1675 MHz, have geographic service areas that have nationwide coverage. Narrowband PCS is also licensed on a regional basis. See 47 C.F.R. § 24.102. Other geographic service areas fall along a range of intermediate sizes between RSAs and nationwide service areas, e.g., Major Trading Areas (MTAs), Basic Trading Areas (BTAs), EAs, and Major Economic Areas (MEAs). See Summary of Completed Auctions, available at <<http://wireless.fcc.gov/auctions/summary.html#completed>> (denoting geographic service areas for each auction that has been conducted pursuant to 47 U.S.C. § 309(j)). We note that Rand McNally & Company owns the copyright to the MTA and BTA listings. See Rand McNally, 1992 Commercial Atlas and Marketing Guide at 36-39 (123d ed. 1992).

<sup>61</sup> 47 U.S.C. § 309(j)(3)(B). The Commission is to 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. *Id.* § 309(j)(4)(C).

<sup>62</sup> See *Rural NPRM*, 18 FCC Rcd at 20833-37 ¶ 63-71 (noting efficiency of spectrum use, competition among providers, and advancing rural wireless services).

approach.<sup>63</sup> The Commission also emphasized the importance of selecting appropriate sized geographic service areas for reducing transaction costs that providers may incur if it becomes necessary to aggregate or disaggregate spectrum, or negotiate in secondary markets, in order to meet spectrum needs.<sup>64</sup>

19. *Discussion.* Based on our experience in past proceedings and the record established in this one, we conclude that maintaining the flexibility to establish geographic areas on a service-by-service basis and promoting the use of a variety of service areas, including small areas such as MSAs/RSAs, are in the public interest. By adopting this framework, we seek to promote service in rural areas, encourage the efficient utilization of spectrum, and to make spectrum and licenses available to a wide array of licensees, including rural providers. Furthermore, we believe that this approach provides flexibility, while providing an opportunity for spectrum to be made available over small areas such as MSAs/RSAs depending on the record and other considerations relevant to the specific spectrum, thereby increasing the likelihood of service to rural markets.

20. Comments in the record support this approach. For instance, some parties commented that the Commission should maintain the flexibility to license on a service-by-service basis to address the particular needs of those services.<sup>65</sup> Comments generally indicated support for the use of various license area sizes to help provide access, including small areas such as MSAs/RSAs<sup>66</sup> and county-sized areas,<sup>67</sup> as well as a mixture of different sizes.<sup>68</sup> T-Mobile comments that the Commission should be careful about providing for smaller geographic market areas.<sup>69</sup> Some comments reflect disagreement with respect to the success of current partitioning and disaggregation rules relative to the deployment of wireless services in rural areas.<sup>70</sup>

---

<sup>63</sup> *Id.* at 20836 ¶ 68.

<sup>64</sup> *Id.* at 20833-34 ¶¶ 63-64.

<sup>65</sup> Nextel Partners Reply Comments at 14; *see* AT&T Wireless Reply Comments at 6-7 (commenting that a one-size-fits-all approach undermines ability to ensure efficient spectrum use).

<sup>66</sup> *See* OPASTCO/RTG Comments at 7, OPASTCO/RTG Reply Comments at 8, Blooston Comments at 20, Blooston Reply Comments at 11, and USCC Comments at 4; *see also* RCA Comments at 11 (commenting that all licenses offered in auctions should be MSA/RSA-sized).

<sup>67</sup> Southern LINC Comments at 10; *see* UTStarcom Comments at 11.

<sup>68</sup> Blooston Reply Comments at 10-11, CTIA Comments at 11.

<sup>69</sup> *See* T-Mobile Reply Comments at 5-6 (commenting that service plans consumers want can only be delivered efficiently by carriers with national license footprints).

<sup>70</sup> *Compare* AT&T Wireless Comments at 4-5 (commenting that the ability to partition and disaggregate spectrum has allowed it to conduct transactions with other entities to expedite deployment of service in rural areas) *with* Blooston Comments at 11-12 (commenting that partitioning and disaggregation rules have been largely unsuccessful in assisting rural telephone companies and small businesses to enter the wireless business) *and* OPASTCO/RTG Comments at 10-11 (commenting that due to the small number of licenses that have been partitioned and/or disaggregated, the Commission's reliance on partitioning and disaggregation to stimulate the growth of rural markets is misplaced). "Partitioning" is the assignment of geographic portions of a license along geopolitical or other boundaries. "Disaggregation" is the assignment of discrete portions of "blocks" of spectrum licensed to a geographic licensee or qualifying entity. Disaggregation allows for multiple transmitters in the same  
(continued....)

21. The approach we adopt today will afford us with the flexibility necessary to tailor the size of licensed areas to balance the needs of the different prospective users of the spectrum together with other factors, including the unique characteristics of that spectrum. We believe that this approach will provide incentives for the provision of advanced applications and service offerings in rural areas.

22. *Service-by-Service Determination in Future Proceedings.* Consistent with our tentative finding in the *Rural NPRM*, we intend to continue a service-by-service approach in defining the initial scope of licenses in the future. We find that this approach is the best method to provide carriers adequate access to spectrum, including spectrum in rural areas, and is consistent with the methodologies used in prior proceedings.<sup>71</sup>

23. A service-by-service approach is consistent with our statutory mandate as well.<sup>72</sup> For services subject to auction, the Commission is required to promote various objectives in designing a system of competitive bidding, including the development and rapid deployment of new technologies, products, and services for the benefit of the public, "including those residing in rural areas," and "the efficient and intensive use of spectrum."<sup>73</sup> The flexibility afforded by a service-by-service approach permits us to balance our various obligations. For example, promoting efficient and intensive use of the spectrum may require the use of large spectrum blocks or service areas to achieve economies of scale, which in turn may conflict with promoting opportunities for small businesses and rural service providers that may require smaller spectrum blocks. Moreover, parties within the same geographic areas may have competing interests. In this regard, the flexibility afforded by a service-by-service approach allows the Commission to consider the extent to which multiple licenses and different sizes of geographic areas should be made available to promote competition within the market.<sup>74</sup> This approach also permits the

---

(Continued from previous page)

geographic area operated by different companies on adjacent frequencies. See *AWS Report and Order*, 18 FCC Rcd at 25193 n. 203.

<sup>71</sup> See, e.g., *AWS Report and Order*, 18 FCC Rcd at 25175-77 ¶¶ 35-40 (licensing bands using a range of geographic licensing areas in order to maintain maximum flexibility); *Lower 700 MHz Report and Order*, 17 FCC Rcd at 1058-62 ¶¶ 89-96 (adopting a combination of large regional areas and small geographic areas based on record).

<sup>72</sup> In addition, a number of commenters indicate a preference for a service-by-service approach. See USCC Comments at 2-4 (commenting that approach would balance the competing needs of providers); CTIA Comments at 11 (commenting that design of service areas will vary depending on characteristics of specific block); AT&T Wireless Comments at 9 (commenting that approach is necessary to ensure that the technical and other requirements specific to the various services can be met); Nextel Partners Reply Comments at 14 (agreeing with AT&T Wireless). Comments also suggest that the Commission take affirmative steps to assure that there will be the opportunity for spectrum to be available for service to rural areas. See NTCA Comments at 6-8 (asking that presumption be created that spectrum will be licensed according to small geographic areas); OPASTCO/RTG Comments at 7, Reply Comments at 8 and Blooston Comments at 20-22 (commenting that at least one spectrum block in each newly allocated wireless service be reserved for licensing in MSAs/RSAs).

<sup>73</sup> 47 U.S.C. §§ 309(j)(3)(A),(D).

<sup>74</sup> For example, the Commission has assessed the use or uses to which spectrum is likely to be put and determined the geographic scope of licenses that, based on the record in the specific proceeding, would best facilitate rapid deployment of services. See, e.g., Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission's Rules, WT Docket No. 99-168, *First Report and Order*, 15 FCC Rcd 476, 500 ¶ 57

(continued....)

Commission to consider the use of large service areas if necessary to provide for quicker build-out of facilities and deployment of new and innovative wireless services. In some instances, the adoption of larger areas may be more effective than the use of smaller areas where spectrum use is to be transitioned to new services. In these circumstances, the availability of licenses based on larger service areas may result in a quicker and more successful transition throughout the nation and thus enable the development and deployment of such new services.

24. Another important element of a service-specific methodology is that it takes into account any technical considerations associated with particular spectrum. For example, questions of whether and when new technologies would use the spectrum, and how much spectrum would be required for any such new technologies, may be considered in determining the appropriate geographic areas for a particular service.<sup>75</sup> In addition, a service-by-service approach would allow the Commission to determine whether propagation characteristics in a particular band would make it more or less conducive to business models that are built on serving customers over a particular size of service area.<sup>76</sup> This approach would help us to promote investment in and the rapid development of new technologies and services.<sup>77</sup>

25. We also find that a service-specific approach allows us to consider the appropriate size of each future service area in the context of geographic partitioning and spectrum disaggregation rules. Geographic partitioning and spectrum disaggregation are available to promote efficient spectrum use and economic opportunity by a wide range of applicants, including rural telephone companies.<sup>78</sup> A service-by-service approach permits the Commission to structure service areas in light of potential costs relating to aggregation, partitioning and disaggregation for the particular spectrum.<sup>79</sup> The Commission can

---

(Continued from previous page)

(2000). In the *AWS Report and Order*, the Commission observed that including EAs and Regional Economic Area Grouping (REAGs) in the band plan would provide licensees with the ability to form specific service territories, or provide an existing service provider an opportunity to acquire a licensing area in order to supplement existing spectrum holdings. *AWS Report and Order*, 18 FCC Rcd at 25176 ¶ 37. With respect to smaller service areas, the Commission observed that the inclusion of MSAs and RSAs in that licensing scheme would permit rural telephone companies and small service providers that have localized business plans to have various options, including the potential to combine several MSAs/RSAs if necessary. *See id.* at 25176-77 ¶ 39. In the *Lower 700 MHz Report and Order*, the Commission assigned some licenses over MSAs and RSAs, and found that the smaller areas may correspond to the needs of customers of small and rural providers. *Lower 700 MHz Report and Order*, 17 FCC Rcd at 1061-62 ¶ 96. *See also* 47 C.F.R. § 27.6(c) (identifying service areas for the 698-746 MHz band).

<sup>75</sup> *See* 47 U.S.C. § 309(j)(4)(C). The Commission has sought to make spectrum available for a variety of new technologies and providers. *See, e.g.*, Principles for Reallocation of Spectrum to Encourage the Development of Telecommunications Technologies for the New Millennium, *Policy Statement*, 14 FCC Rcd 19868, 19879-80 ¶ 25 (1999) (*Spectrum Policy Statement*); *Lower 700 MHz Report and Order*, 17 FCC Rcd at 1061-62 ¶ 96; and Modification of Parts 2 and 15 of the Commission's Rules for unlicensed devices and equipment approval, ET Docket No. 03-201, *Report and Order*, FCC 04-165 (rel. July 12, 2004).

<sup>76</sup> *See, e.g.*, *Lower 700 MHz Band Report and Order*, 17 FCC Rcd at 1061 n. 273.

<sup>77</sup> *See* 47 U.S.C. § 309(j)(4)(C).

<sup>78</sup> *See AWS Report and Order*, 18 FCC Rcd at 25193 ¶ 80.

consider whether potentially high transaction costs can be avoided by allowing the initial service areas to be sized in order to meet the needs of the service providers that want to use that spectrum.<sup>80</sup>

26. The continued use of service-specific determinations of appropriate geographic area sizes corresponds with the opportunity for parties to take advantage of our secondary markets leasing rules.<sup>81</sup> Even if the market size or sizes that we adopt in a particular proceeding are not necessarily the optimal size to meet the objectives of all potential users, small carriers are still afforded the opportunity to access appropriately sized market areas through spectrum leasing. In the *Secondary Markets Report and Order*, the Commission stated that facilitating the development of secondary markets enhances and complements several of the Commission's major policy initiatives and public interest objectives, including enabling the development of additional and innovative services in rural areas.<sup>82</sup>

27. AT&T Wireless comments that the establishment of a secondary market in spectrum will "promote the availability of wireless service in rural areas."<sup>83</sup> CTIA states that the operation of the secondary markets rules, together with the ability of parties to partition and disaggregate service areas, will "allow the market to determine the most efficient license size, and permit carriers to react to new technologies and service offerings."<sup>84</sup> We find that the continuing development of the benefits associated with the secondary markets policies and rules complements a service-specific approach to determining the appropriate size or sizes of geographic service areas.

28. We also note that a service-specific approach permits the Wireless Telecommunications Bureau (Bureau) to consider whether any particular auction methodology should be employed in light of the decisions that are made regarding the scope of licenses for that spectrum. For example, certain comments address the potential for use of package bidding.<sup>85</sup> In order to maintain maximum flexibility

---

(Continued from previous page)

<sup>79</sup> Geographic partitioning and spectrum disaggregation can result in transaction costs. See NTCA Comments at 7-8 (commenting that transactional and other costs are associated with partitioning and disaggregation). Transaction costs can include engineering, legal, and management expenses associated with aggregation, disaggregation, or partitioning of spectrum.

<sup>80</sup> With respect to particular spectrum, the Commission has found that the use of a single, large geographic license size could lead to disaggregation and partitioning costs after the auction, whereas the availability of only small geographic licenses at auction could result in aggregation costs either during or after the auction. *AWS Report and Order*, 18 FCC Rcd at 25176 ¶ 36.

<sup>81</sup> See *infra* Section III.B.2..

<sup>82</sup> See generally *Secondary Markets Report and Order*, 18 FCC Rcd at 20607 ¶ 2. The Commission observed that a substantial amount of spectrum is underutilized in rural areas, and stated that "[f]acilitating the ability of rural telephone companies and other entities to gain access to spectrum usage rights so that they can provide new and advanced services to rural consumers should help our efforts to promote the further development and delivery of spectrum-based services to rural communities." *Id.* at 20626 ¶ 45 (footnote omitted).

<sup>83</sup> AT&T Wireless Comments at 2.

<sup>84</sup> CTIA Comments at 11 n. 24.

<sup>85</sup> See *id.* at 11 (balanced approach to determining size of service areas may lead to aggregation of spectrum during auction process through use of package bidding), Southern LINC Comments at 11 (Commission should permit (continued....))

with respect to removing barriers to spectrum, however, no particular form of auction design will be endorsed at this time, including the use of package bidding. Rather, consistent with our statutory obligations and with our actions in the past, the Bureau will seek comment on auction-related procedural issues, including auction design, prior to the start of the auctions for the individual spectrum.<sup>86</sup> This will provide an opportunity to weigh the benefits and disadvantages of any particular bidding design prior to the start of the auction, and will permit the auction procedures to be structured, if necessary, to center on matters that may be of particular concern to the likely participants in the auction and to the spectrum use, including the number of licenses to be auctioned, the number of spectrum blocks, and the size of the geographic service areas.

29. A number of commenters support the availability of smaller geographic service areas to help ensure that services are made available in rural areas.<sup>87</sup> One commenter asserts that all licenses should be based on MSAs/RSAs;<sup>88</sup> many others seek a licensing approach that would provide for some MSA/RSA sized units,<sup>89</sup> while others recommend the use of even smaller areas such as those that would be based on counties.<sup>90</sup> T-Mobile urges a cautious approach to setting license size, noting the transaction costs and network integration issue that faced cellular and PCS carriers in attempting to establish national footprints. Its experience suggests that consumers, including those in rural areas, want national service and pricing plans which "can only be delivered efficiently by carriers with national license footprints."<sup>91</sup> Some comments contend that a mixture of service area sizes should be adopted.<sup>92</sup>

30. In conclusion, we decline to adopt any particular size of geographic service area for future licensing at this time. Rather, as we state above, we believe that the existence of such a wide range of comments and views make it all the more appropriate for us to consider issues relating to spectrum access and the scope of licenses for particular spectrum in the context of proceedings to establish rules for the use of that spectrum. We believe that this methodology offers the opportunity for parties that would actually want to be involved with the use of that spectrum to target specific issues

---

(Continued from previous page)

aggregation of geographic area licenses using package bidding). Package bidding allows bidders to submit all-or-nothing bids on combinations of geographic areas or spectrum blocks in addition to bids on individual licenses or authorizations. See *Rural NPRM*, 18 FCC Rcd at 20837 ¶ 70.

<sup>86</sup> See, e.g., *AWS Report and Order*, 18 FCC Rcd at 25173-74 ¶ 29.

<sup>87</sup> See NTCA Comments at 6-8, UTStarcom Comments at 11-13, Blooston Comments at 20-22, Blooston Reply Comments at 10-11, OPASTCO/RTG Comments at 7, OPASTCO/RTG Reply Comments at 7-8, CTIA Comments at 11, RCA Comments at 11.

<sup>88</sup> RCA Comments at 11.

<sup>89</sup> See Blooston Comments at 20-22, Blooston Reply Comments at 10-11, OPASTCO/RTG Comments at 7, OPASTCO/RTG Reply Comments at 7-8, CTIA Comments at 11.

<sup>90</sup> See Southern LINC comments at 10 (favoring use of county-sized areas), UTStarcom Comments at 11-12 (use geographic areas that are smaller than previously employed, e.g., county-sized).

<sup>91</sup> T-Mobile Reply Comments at 5-6.

<sup>92</sup> CTIA Comments at 11, Blooston Comments at 21, OPASTCO/RTG Reply Comments at 7-8.

relating to adoption of the band plan that will help to remove barriers to entry and increase access to the spectrum.

31. *Multiple Licensing; Opportunities for Providers in Small and Rural Areas.* In our service-by-service evaluations, in certain circumstances we have determined that it is appropriate to license different market sizes. For example, for AWS in the 1.7 GHz and 2.1 GHz bands, the Commission licensed the bands using a range of geographic licensing areas in order to maintain maximum flexibility.<sup>93</sup> That band plan spreads licenses over various blocks of spectrum and uses EAs, REAGs, and a block with 734 licenses based on RSAs/MSAs. The Commission noted the competing needs of parties that sought large and small areas, as well as a combination of large and small geographic licensing areas, and found that there was sufficient spectrum to meet the competing need for both large and small areas.<sup>94</sup> The Commission determined that using a varied selection of areas will foster service to rural areas and promote the policy goal of disseminating licenses among a wide variety of applicants.<sup>95</sup> The Commission stated further that these smaller service areas “provide entry opportunities for smaller carriers, new entrants, and rural telephone companies.”<sup>96</sup> Assignment of a variety of licenses will also provide flexibility in service offerings, for example, where the use of MSAs and RSAs in conjunction with other sized license areas may allow licensees to focus on consumers that require localized use without the need for roaming service.<sup>97</sup> Further, some comments on the *Rural NPRM* state that providing a combination of license sizes, together with the availability of secondary markets and partitioning and disaggregation rules, will permit parties to react to new technologies and service offerings.<sup>98</sup> In future proceedings, where we determine the size of service areas on a service-by-service basis, we will consider licensing the spectrum over a range of various sized geographic areas, including smaller service areas such as MSAs/RSAs, where consistent with the record in that proceeding and with other factors that may be relevant to the spectrum.

## 2. Re-licensing vs. Market-Based Mechanisms

32. *Background.* In an effort to increase access to assigned spectrum, the Commission sought comment on when, and under what circumstances, it should apply re-licensing provisions to prospective spectrum designations.<sup>99</sup> The Commission did not propose to change the licensing provisions for current wireless services, but rather chose to evaluate whether it should use re-licensing as a means to increase access to spectrum, and thus service, especially in rural areas and whether, in the event of such re-licensing, there are particular construction standards, such as “complete forfeiture” or “keep what you

---

<sup>93</sup> See *AWS Report and Order*, 18 FCC Rcd at 25175-77 ¶¶ 35-39.

<sup>94</sup> *Id.* at 25175 ¶ 35.

<sup>95</sup> *Id.*

<sup>96</sup> *Id.* at 25177 ¶ 39.

<sup>97</sup> *Lower 700 MHz Report and Order*, 17 FCC Rcd at 1061-62 ¶ 96.

<sup>98</sup> See CTIA Comments at 11 & n. 24.

<sup>99</sup> *Rural NPRM*, 18 FCC Rcd at 20811-17 ¶¶ 13-30.

use” that are most effective in promoting access and service in rural areas.<sup>100</sup>

33. The Commission explained that one reason it adopted its *Secondary Markets Report and Order* was to enhance economic opportunities and access for the provision of communications services in rural areas.<sup>101</sup> In that proceeding, the Commission took important first steps to facilitate significantly broader access to valuable spectrum resources. These flexible policies extended the Commission’s reliance on the marketplace to expand the scope of available wireless services and devices, with the intent of promoting efficient and dynamic use of spectrum resource for the benefit of consumers throughout the country, including those in rural areas. The Commission also sought further comment on various ways in which it could enhance opportunities for spectrum access, efficiency, and innovation by removing unnecessary regulatory barriers and implementing more market-oriented policies that would facilitate moving spectrum to its highest valued uses.<sup>102</sup>

34. Following the policies adopted in the secondary markets proceeding, the Commission sought comment in the *Rural NPRM* on different mechanisms that could potentially be used to reclaim spectrum and increase access by others, including the cellular “keep what you use” approach and the PCS “complete forfeiture” approach. Currently, the process for reclaiming unused licensed spectrum differs across services.<sup>103</sup> Under the cellular “keep what you use” approach, initial licensees must construct facilities five years from license grant and begin providing service within a predefined geographic service area, after which licensees relinquish their spectrum usage rights to all “unserved areas.” For the majority of other geographically licensed services, including PCS, licensees are afforded exclusive rights and a renewal expectancy for the entire authorized area once performance requirements are met, regardless of whether service is provided over the entire authorized area. Failure to meet applicable benchmarks results in forfeiture of the entire license, including the rights to operate any facilities already constructed under the authorization.<sup>104</sup>

35. The Commission explained that once spectrum has been reclaimed there are different approaches to re-licensing that spectrum for use by others. Under the cellular “keep what you use”

---

<sup>100</sup> *Id.* at 20816-17 ¶¶ 24-26.

<sup>101</sup> *Id.* at 20811-12 ¶ 14.

<sup>102</sup> *Secondary Markets Report and Order*, 18 FCC Rcd at 20687-719 ¶¶ 213-323. *See also*, Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets, WT Docket No. 00-230, *Second Report and Order, Order on Reconsideration, and Second Further Notice of Proposed Rulemaking*, FCC 04-167 (rel. Sept. 2, 2004) (*Secondary Markets Second Report and Order, Secondary Markets Order on Reconsideration, and Secondary Markets Second Further Notice*, respectively).

<sup>103</sup> For instance, site-based private land mobile radio licensees generally are given one year to construct particular sites. A licensee with an unconstructed site after one year loses its authorization to operate at that site, and other parties subsequently may request a license to operate in that unused spectrum. *See Rural NPRM*, 18 FCC Rcd at 20812 ¶ 15.

<sup>104</sup> For example, PCS licensees must meet five- and ten-year benchmarks that mandate coverage of a certain percentage of the population of their licensed areas, or where applicable, make a showing of substantial service. Failure to meet these benchmarks results in automatic cancellation or non-renewal of the entire license. Moreover, for many services, if the licensee loses its authorization for failing to meet the coverage requirements, it is often ineligible to reapply for that authorization. *See id.* at 20812-13 ¶ 16.

approach, the unconstructed portions of a market become available for site-based licensing to other parties via the cellular “unserved area” licensing process. In the alternative, the Commission explained that it could create expanded “overlay” rights to unused spectrum, whereby usage rights are auctioned to new licensees.<sup>105</sup> Comment was also sought on alternative mechanisms such as government defined easements to promote access to spectrum in rural areas.<sup>106</sup>

36. To assess how these potential re-licensing mechanisms would work in the context of the Commission’s market-oriented policies based on flexible use of spectrum and substantial service performance requirements, the Commission inquired generally as to what constitutes use of spectrum by a licensee.<sup>107</sup> In this context, it sought comment on whether and how to provide a clear definition of “use” for all parties to support policies for access to “unused” spectrum. If a definition of “use” was to be adopted, the Commission explained that licensees that construct facilities or lease their spectrum must understand how use is construed in terms of construction requirements, re-licensing, and other policies that may affect them so that they will know what rights they will retain in the event they do not use their spectrum.

37. *Discussion.* We decline to adopt specific re-licensing rules for future spectrum allocations at this time. We believe our recently-adopted secondary market-based mechanisms should be afforded a greater opportunity to provide access to spectrum in a more efficient manner. After considering the record established in this proceeding,<sup>108</sup> we agree generally with the majority of commenters who support additional time for the development of secondary market mechanisms to move “unused” spectrum from licensees to other entities who place a higher value on use of the spectrum.<sup>109</sup> Because our secondary markets policies are relatively new and the benefits from their implementation have yet to be fully realized, we decline to adopt re-licensing rules for future spectrum allocations at this time.

38. This approach will allow us to examine alternative approaches while we assess the efficacy of our secondary markets initiatives and underlying policies in rural areas. We believe that the

---

<sup>105</sup> To address issues related to the incumbent licensees in these bands, the Commission explained that it could adopt various policies, including mandatory relocation of incumbents to other bands, grandfathering incumbents in the existing band, or providing incentives for band-clearing. It noted that overlays with relocation of incumbents were used in broadband PCS, while grandfathering of incumbents was used in services such as paging and SMR. *Id.* at 20813 ¶ 17.

<sup>106</sup> *Id.* at 20817 ¶ 30.

<sup>107</sup> *Id.* at 20814-16 ¶¶ 19-23.

<sup>108</sup> See, e.g., Nextel Communications Comments at 15, Southern LINC Reply Comments at 12; see also AT&T Comments at 8; CTIA Comments at 8; Cingular Comments at 7-8; Dobson Comments at 10, 15; Nextel Communications Reply Comments at 13; Sprint Reply Comments at 25; T-Mobile Reply Comments at 4; Western Wireless Reply Comments at 12.

<sup>109</sup> Despite concerns that leasing may not facilitate access in rural areas, see OPASTCO/RTG Reply Comments at 5, our licensing databases indicate that we are beginning to see leasing activity in the secondary market and we believe that secondary market arrangements should be afforded an opportunity to develop before concluding that these policies are insufficient or comparable to the “Commission’s failed partitioning and disaggregation rules.” *Id.*

flexibility that results from a simplified set of licensing rules gives licensees freedom to determine the choice of technologies and services the market demands and ultimately leads to more efficient spectrum use. Over the last decade, a large percentage of spectrum has been allocated under policies that emphasize flexible use. As in the past, numerous commenters in this proceeding cite the benefits of applying such policies to spectrum allocations where licensing rules rely on market-based mechanisms.<sup>110</sup> These flexible allocation policies underlie our goal of creating an efficient secondary market that can move spectrum to its highest valued end use. Our steps to facilitate spectrum leasing in the secondary market, along with many other measures to encourage more efficient use of spectrum, should facilitate greater access to spectrum by better ensuring that licensees face significant opportunity costs when deciding either to use spectrum for themselves or to lease it to others.

39. In addition, we will continue to examine various alternatives for creating incentives to increase the number and/or level of wireless providers and services in rural areas. In particular, we recognize that, after the initial license term, it may be appropriate in some instances to revert to re-licensing along the lines of some of the proposals received so that another carrier has an opportunity to provide wireless services to such areas. In addition, we are exploring approaches that may be more transparent and better aligned with market-based mechanisms than proposals whose implementation might constrain the flexible use policies underlying our secondary market-based initiatives.<sup>111</sup> We will continue to consider the potential use of re-licensing standards (e.g., “keep what you use”) in our *Further Notice*, as well as in the context of future service-specific rulemakings.<sup>112</sup>

40. In the *Rural NPRM*, as part of the Commission’s consideration of re-licensing versus market-based mechanisms for increasing licensed access to “exclusive use” spectrum, the Commission also sought comment on whether it should consider at this time a more general application of alternative mechanisms for new licensed services, such as government-defined spectrum easements.<sup>113</sup> Given our

---

<sup>110</sup> Nextel Communications Reply at 10 (Commission should trust the markets and not micromanage by mandating “forced access”). Market forces help ensure that licensees use their spectrum efficiently and allocate their financial resources wisely. Several commenters caution that replacing market-based policies with regulatory burdens may subject carriers to performance requirements that are not fiscally sound or economically sustainable. See AT&T Comments at 7, CTIA Comments at 6, Cingular Comments at 4, Southern LINC Comments at 9, Nextel Partners Comments at 17-19, Southern LINC Reply at 6-7.

<sup>111</sup> Because the economics of providing service can be significantly different in rural areas as compared to urban areas, our market-based policy acknowledges that market characteristics, especially demographics, will affect the optimal provision of service in rural areas. For example, in the *Rural NPRM*, the Commission stated that it sought to facilitate provision of service in rural areas while also accounting for “market realities.” *Rural NPRM*, 18 FCC Rcd at 20807 ¶ 7. It also stated that its “policy to let market forces determine the number of firms operating in a given geographic area, subject to limits on spectrum availability and aggregation . . . allows firms to operate at a competitive and efficient scale of operation.” *Id.* at 20807 ¶ 6.

<sup>112</sup> As an alternative to “keep what you use,” some commenters support the future use of the PCS “complete forfeiture” model. See, e.g., CTIA Comments at 9, Southern LINC Reply Comments at 12.

<sup>113</sup> See *Rural NPRM*, 18 FCC Rcd at 20817 ¶ 30. As used in the *Spectrum Policy Task Force (SPTF) Report*, and for purposes of this proceeding, the term “easements” refers to government-defined access rights to licensed spectrum that would not require the easement user to obtain the prior consent of the licensee so long as the user complied with the easement conditions, e.g., non-interference with the licensee’s use of the spectrum. *Id.* at 20817 n. 67 (citing Spectrum Policy Task Force Report, ET Docket No. 02-135 at 55, 58 (rel. Nov. 2002) (*SPTF Report*)).

current efforts to facilitate the development of secondary markets in spectrum usage rights in such spectrum,<sup>114</sup> we believe that we should continue to take steps to facilitate spectrum leasing in secondary markets, and that we should evaluate other access mechanisms in the context of specific service rulemakings. Less than a year has elapsed since our spectrum leasing rules went into effect – a short period of time for an efficient secondary market to develop and for its impact to be seen. As such, any broad evaluation and comparison of secondary markets with the other access mechanisms described in the *Rural NPRM* for new licenses is premature. We note that commenting parties opposed the general imposition of mandatory spectrum easements, many contending that secondary markets have not yet had time to develop.<sup>115</sup> We will, however, continue to evaluate the possible future use of easements in the *Further Notice*.

41. Because we are not adopting any re-licensing policies at this time, we need not define “use” of spectrum.<sup>116</sup> As explained above, we generally believe that by maintaining our flexible, relatively undefined use policy for geographic-area licensees as applicable, we can increase efficient access to and use of spectrum under our secondary markets initiatives that will permit spectrum (and access) to flow to those particular uses that consumers most demand. We note, however, that the definition of “use” will be revisited, should we conclude that re-licensing policies should be adopted as a result of our *Further Notice*.<sup>117</sup> We make clear, however, that spectrum in rural areas that is leased by a licensee, and for which the lessee meets the performance requirements that are applicable to the licensee,

---

<sup>114</sup> In its *Secondary Markets Report and Order*, the Commission took various first steps toward facilitating development of secondary markets in spectrum usage rights. See *Secondary Markets Report and Order*, 18 FCC Rcd at 20607-08 ¶¶ 1-3. Recently, the Commission adopted additional reforms to its rules and procedures to facilitate secondary market transactions. See *Secondary Markets Second Report and Order* at ¶¶ 1-115. In addition, we note that the *SPTF Report* recommended that the Commission consider alternative mechanisms, such as government-defined easements, after there has been sufficient time to consider the effectiveness of this approach. See *SPTF Report* at 67.

<sup>115</sup> See, e.g., AT&T Comments at 8, CTIA Comments at 8, Cingular Comments at 7-8, Dobson Comments at 10, 15, Nextel Communications Reply Comments at 13, Sprint Reply Comments at 25, T-Mobile Reply Comments at 4, Western Wireless Reply Comments at 12. At least one commenter, however, noted that permissive easements would be appropriate. See Nextel Communications Reply Comments at 5 (stating that a flexible spectrum policy would permit, but not require, licensees to allow operation of unlicensed devices on their networks).

<sup>116</sup> As a result, it follows that we also are not establishing any specific usage baselines for individual services above which licensees must reach in order to minimally comply with our substantial service policies. See *Rural NPRM* at ¶ 22; see also Southern LINC Comments at 5, RCA Comments at 6, Blooston Reply Comments at 3. As we explain below, see *infra* Section III.D.1., however, we are amending our rules to permit certain geographic-area licensees to provide substantial service as a means of complying with their existing construction requirements, along with appropriate rural “safe harbors” to increase certainty and alleviate concerns that the substantial service requirement is overly vague. See also *Rural NPRM*, 18 FCC Rcd at 20813-14 ¶ 18 n.58 (retaining “current bench marks for geographic-area licensees but . . . [adding] a substantial service option to provide such licensees with greater flexibility in meeting their construction requirements”). Accordingly, we disagree with commenters supporting strict reporting guidelines and will continue to rely on current rules that in many cases permit licensees to determine the showings necessary to report their construction. See e.g., OPASTCO/RTG Comments at 6. To the extent that our rules defining protected service areas vary by service, see *Rural NPRM*, 18 FCC Rcd at 20815-16 ¶ 23, we intend to consider harmonizing these regulations across services in a future rulemaking.

<sup>117</sup> See *infra* Section IV.C.2.

will be construed as “used” for the purposes of performance criteria and construction requirements.<sup>118</sup> Further, as we note in our discussion regarding infrastructure sharing arrangements, to the extent that licensees are sharing spectrum usage rights with third parties under spectrum leasing arrangements, such arrangements will be subject to the policies, rules, and procedures set forth in the *Secondary Markets* proceeding.<sup>119</sup> Thus, to the extent that parties enter into spectrum leasing arrangements pursuant to the *Secondary Markets Report and Order*, the applicable policies, rules, and procedures relating to performance, build-out, and discontinuance of service will apply.<sup>120</sup> Finally, consistent with the majority of comments,<sup>121</sup> we also find it premature to establish a data base of available “white space” in rural areas or increase the use of spectrum “audits.”<sup>122</sup>

### C. Facilitating Access to Capital

42. In order to construct facilities and provide Americans living or traveling in rural areas with important, innovative and advanced services – including such services as broadband, E911, and medical telemetry – wireless licensees must have adequate access to capital resources. We recognize that capital formation issues may be particularly relevant for would-be rural service providers, who may have fewer consumers among whom to spread the costs of providing service. Although we have existing measures to provide funding for deployment in rural areas, such as the Universal Service Fund, we

---

<sup>118</sup> This is consistent with the Commission’s decision in its secondary markets proceeding. See *Secondary Markets Report and Order*, 18 FCC Rcd at 20655, ¶¶ 114-115. We note that merely leasing spectrum, where the lessee does not fully meet the licensee’s performance requirements, would not be considered “use” under this decision. See, e.g., RCA Comments at 6. We find the record to be insufficient to declare a policy of regulatory flexibility for system construction extension requests arising from the failure of an unrelated lessee to live up to its contractual obligation. See Blooston Reply Comments at 4.

<sup>119</sup> See *infra* Section III.D.3.

<sup>120</sup> See *Secondary Markets Report and Order*, 18 FCC Rcd at 20655 ¶¶ 114-5. RCA and NTCH request that the Commission treat spectrum that is involved in infrastructure sharing arrangements as “in use” for purposes of performance requirements and not subject such spectrum to forfeiture or re-licensing. See RCA Comments at 14, NTCH Comments at 5-7. NTCH’s proposal contemplates situations including the pooling of frequencies for multiple users to use a large spectrum block, citing Amendment of Parts 1, 21, 73 74 and 101 of the Commission’s Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and other Advanced Services in the 2150-2162 MHz Bands ITFS/MDS proceeding, Docket No. 03-66. See NTCH Comments at 6. As we state above, licensees and third parties may rely on the policies, rules, and procedures in the *Secondary Markets* proceeding to the extent that licensees are sharing spectrum usage rights with third parties under spectrum leasing arrangements. We further note that other procedures may be available to licensees and other parties that enter into arrangements that directly include the use of licensed spectrum, including the filing of applications pursuant to Section 310(d) seeking full or partial assignments of licenses. See *infra* Section III.D.3.

<sup>121</sup> See Blooston Comments at 8-9, CTIA Comments at 7-9 (claiming that the Commission’s limited audit resources would be better utilized finding available spectrum in congested areas, rather than in rural areas where spectrum is generally available), Cingular Comments at 5 n.15, Dobson Comments at 14, 17, Nextel Communications Reply Comments at 9, 10 n. 18 (asserting that audits coupled with a take-back program, if appropriate anywhere, would appear to be better suited for use in non-rural markets), Western Wireless Reply Comments at 12. In contrast, ITA supports additional construction and operational status audits, and the development of a “white space” database. See ITA Reply Comments at 7-8.

<sup>122</sup> See *supra* note 116 (noting our intent to harmonize regulations across services in a future rulemaking).