that the underlying principles would continue to support an allocation to Fixed and Mobile services. Such an allocation thus will enable the greatest variety of services to be developed and used by the public.

49. Many commenters contend that the Commission may not allocate spectrum to both Fixed and Mobile services and use competitive bidding to assign licenses in that allocation because such action would violate the provisions of Section 309(j) of the Communications Act.[111] We disagree with commenters who suggest that the Commission has allocated spectrum to Fixed and Mobile services based on the impermissible purpose of raising funds for the United States Treasury through auctions.[112] We also disagree with commenters' arguments that our proposal to use competitive bidding in the NPRM alters spectrum allocation criteria and procedures established by the other provisions of the Communications Act.[113] Further, as explained supra, the Commission is afforded broad discretion in allocating spectrum in the public interest from Section 303 and other provisions of the Act. In this proceeding, we have decided to adopt an allocation to the Fixed and Mobile services. As we previously discussed, there is precedent for the Commission to employ an allocation to more than one service and provide a licensee great latitude as to how that spectrum is used, even before the Commission had auction authority.[114] Since both the statute and precedent provide adequate support to allocate frequency bands to both Fixed and Mobile services, we are able to conclude that we have not "alter[ed] spectrum allocation criteria and procedures established by the other provisions of [the] Act . . . ." The Commission's adoption of an allocation to the Fixed and Mobile Services is unrelated to our proposal to auction this allocation.

50. While we are proposing below to use auctions as an assignment mechanism based on our preliminary conclusion, based on the record, that services will likely meet the necessary criteria, we have also requested comment as to other services that might be provided under a Fixed and Mobile allocation.[115] If we determine that it is not reasonably likely that the principal use of this spectrum would meet the criteria for assigning licenses through auctions, or that it would better serve the public interest to provide some or all of this spectrum for non-subscriber-based Fixed and Mobile, including private services, it will be necessary to use an alternate assignment method.

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[111] See Comments of APCO at 2-3, AAR at 7, FIT at 3, TIA at 3-6, UTC at 7-8, Motorola at 15-17, and Winforum at 8.

[112] Comments of API at 13, APCO at 6, TIA at 4, UTC at 7, WinForum at 7, Compaq at 13, MSTV at 11, and Motorola at 15-17. 47 U.S.C. § 309(j)(7)(A).

[113] 47 U.S.C. § 309(j)(6)(A).

[114] See para. 45 supra. discussing allocation of spectrum for GPMS and for PCS.

[115] See para. 66, infra.

51. Traditional license assignment methods used to award licenses in mutually exclusive situations included random lotteries and comparative hearings. The Commission's authority to use random selection was generally limited by the Budget Act to situations where the Commission has determined that the principal use of the spectrum does not involve providing service to subscribers.[116] Therefore, if the Commission determines that the principal use of the spectrum is reasonably likely to involve service to subscribers, the Commission may assign licenses in mutually exclusive situations by using competitive bidding or comparative hearings. If the Commission determines that the principal use of the spectrum is not reasonably likely to involve service to subscribers, then we may assign licenses in mutually exclusive situations using previously established methods of random selection or comparative hearing.[117]

52. Some commenters claim that our proposal is inconsistent with our stated objective of providing competition in the provision of new services because different licensees could provide different services and would not, therefore, be in direct competition.[118] Other commenters argue against our proposal, claiming that customers must be ensured of a variety of services, and that the only way to ensure such variety is for the Commission to prescribe what services will be provided in each frequency band.[119] We believe that our proposal for a Fixed and Mobile allocation would provide for a variety of services and would result in competition. Given the wide variety of voice, data, and video services that have been or are now being developed, we believe that licensees will offer various services most demanded by consumers depending on the demographics of a specific area, technical restrictions on use of a specific band, and on existing services currently provided in an area. Licensees under such an allocation plan can be far more responsive to changing consumer demands than can the Commission. Offering licensees the opportunity to offer a wider variety of services, and to modify the types of services offered in response to changing customer demands, results in competition to provide the services most demanded by customers at prices that are deemed reasonable by the marketplace. This results in a much broader form of competition than just direct price competition for a strictly prescribed set of services.

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[116] 47 U.S.C. § 309(i)(1).

[117] The Commission will also need to determine the criteria for mutually exclusive applications. For instance, licenses may be mutually exclusive if accepted during a previously established "window" of time. Alternatively, we could accept applications on a first-come, first-served basis and only applications received on the same day would be considered mutually exclusive. In the case of many private services, we have established frequency coordination requirements to assist in the assignment process. See 47 C.F.R. § 90.175.

[118] In-Flight comments at 8-10.

[119] Comments of ITA at 5-6.

53. Regarding specific uses proposed by commenters, we are not persuaded by arguments that we have not sufficiently provided for accommodation of fixed microwave systems that will be displaced by PCS. This topic was the focus of much consideration in our proceeding identifying spectrum for emerging technologies and commenters have provided no substantive support to demonstrate that sufficient spectrum for relocation has not been identified. Further, reaccommodation of these fixed microwave systems requires paired channels. At this time, there is no other spectrum available that we could pair with 4660-4685 MHz. Several parties seek use of this spectrum for Broadcast Auxiliary services. While these commenters state that this spectrum is needed to support advanced television and to relieve congestion in the 1990-2110 MHz band, it also is possible that these entities could implement more spectrum efficient operations in the spectrum currently available for Broadcast Auxiliary. Moreover, we note that Broadcast Auxiliary services are permissible under a Fixed and Mobile allocation[120] and are not, therefore precluded from obtaining licenses under the allocation we have adopted for this band. Commenters have also suggested that this band be used to accommodate MSS feeder links. The issue of identifying and evaluating the viability of frequency bands for use by MSS feeder links is under consideration in our proceeding preparing for WRC-95, IC Docket No. 94-31.[121] We also note that the 25 megahertz of spectrum under consideration would not be sufficient, by itself, to satisfy the feeder link spectrum requirements for any of the MSS systems currently being proposed by potential MSS providers. Accordingly, we decline to adopt a specific allocation for this spectrum.

54. A number of entities support a Fixed and Mobile allocation for this band, expressing their desire to use the spectrum for such consumer oriented applications as interactive video, voice, and data.[122] Adoption of a Fixed and Mobile allocation for this band will allow licensees to provide a wide variety of applications based on public demand in any particular geographic area. While we anticipate that, under this Fixed and Mobile allocation, most applications provided will be commercial in nature, this allocation does not preclude use of the band for non-subscriber services and we will continue to develop the record in this proceeding to determine whether or not it is likely that the principal use of this spectrum will be for services that meet the statutory criteria for auctions. Considering the potential for providing a variety of applications in this band, we conclude that the allocation we are adopting in this Order will provide the greatest benefit to the public through the introduction of new applications and the enhancement of existing services.

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[120] See Table of Frequency Allocations, 47 C.F.R. § 2.106. A specific example is the entry for 1990-2110 MHz which is allocated for Fixed and Mobile use and is currently used for provision of Broadcast Auxiliary services, particularly for electronic news gathering.

[121] Preparation for International Union World Radiocommunication Conferences, Second Notice of Inquiry, IC Docket No. 94-31, FCC No. 95-36, released January 31, 1995.

[122] See comments of Leaco, WCA, Wireless Holdings, and American Telecasting.

NOTICE OF PROPOSED RULE MAKING

2390-2400 MHz

55. Because we already have rules in place governing unlicensed PCS it is not necessary for us to seek additional comment on service rules.[123] There are, however, several issues with respect to use of this band that we do seek comment on. We note that the existing service rules effectively preclude operations that would combine 2390-2400 MHz with the adjacent 2400-2483.5 MHz band for use as a single, large Part 15 band. We request specific comment on whether some allowance should be made to accommodate operations that combine use of these bands. Commenters pursing combined use of these bands should provide recommendations on appropriate technical standards.

56. The National Research Council (NRC) and Cornell University have requested that aeronautical use of 2390-2400 MHz be specifically prohibited in order to protect space research operations that are conducted at 2380 MHz. In addition, NRC requests that terrestrial use of 2390-2400 MHz be prohibited within 100 miles of the National Astronomy and Ionospheric Center (NAIC) at Arecibo, Puerto Rico. We are sensitive to the need to protect important space research operations at 2380 MHz. We agree with regard to aeronautical use, and therefore we propose to specifically prohibit aeronautical use of unlicensed PCS devices operating at 2390-2400 MHz. However, the potentially nomadic nature of unlicensed PCS devices makes it difficult to effectively prevent use of these devices within a given distance of a particular site. We also believe that the relatively low power of these devices should provide sufficient protection to space research operations in all but the most unusual circumstances. Accordingly, we are not proposing to restrict use of unlicensed PCS devices in the vicinity of the NAIC. We request comment on whether our proposal provides reasonable protection to space research operations and, if not, what steps should be taken to provide greater protection.

57. Finally, as we stated above, we believe that unlicensed PCS and Amateur service use of 2390-2400 MHz will generally be compatible and that it is unnecessary to propose any formal standards for sharing between these services in this band.[124] We request comment on whether this is appropriate or whether there is a need to restrict certain uses by either the Amateur service or unlicensed PCS devices that might be particularly disruptive, or whether we should seek to implement for coordination of Amateur/PCS use. Commenters addressing this issue should be specific as to what uses might be particularly disruptive and as to how shared use of the band could be enhanced.

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[123] See para. 23, supra.

[124] See para. 17, supra.

2402-2417 MHz

58. Both the Amateur service and Part 15 devices operating at 2402-2417 MHz continue to be governed in accordance with current applicable technical and operational rules.[125] However, we seek comment on whether any changes should be made to our rules to facilitate use of this band by the Amateur service and Part 15 devices. Several commenters suggest increasing the status of Part 15 devices and one commenter, UTC, proposes that a Part 16 be created.

59. We note that NRC requests that, in order to protect space research operations, aeronautical use of 2402-2417 MHz be prohibited and that terrestrial use of devices at 2402-2417 MHz be prohibited within 30 miles of the NAIC.[126] Also, NRC expresses concern that harmonic emissions from 2412-2418 MHz may interfere with radio astronomy use of the 4825-4835 MHz band.[127] While we are currently maintaining the existing use of this band, we request comment on whether any of these restrictions should be implemented. Commenters addressing this issue should provide full support for their positions, including what effect such restrictions will have on the ability of Part 15 devices and the Amateur service to use this band.

4660-4685 MHz

A. Service Rules

1. General Wireless Communications Service

60. We propose to create a new service for licensing of the 4660-4685 MHz band. This new service, which would be included in a new Part of the Commission's Rules, would allow a licensee to provide any Fixed or Mobile service, consistent with the allocation for this band and our proposed rules described below. We propose to name this new service the General Wireless Communications Service (GWCS). We believe that this proposal will provide licensees a sufficient opportunity to meet the spectrum needs of consumers. For example, licensees could use this spectrum for dispatch service, point-to-point microwave, aeronautical audio/visual service, wireless local loop services, and terrestrial fixed and mobile auxiliary broadcast operations. As we have noted, Broadcast services, Radiolocation services,

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[125] UTC comments at 15, Motorola comments at 10-14, Metricom comments at 13-14.

[126] NRC comments at 7.

[127] NRC comments at footnote 10.

and Satellite services (including the Mobile Satellite Service) would not be included in the General Wireless Communications Services category.[128] We seek comment on this proposal.

61. We note that in addition to the Fixed and Mobile allocation we have adopted in the First Report and Order, 4660-4685 MHz is allocated on co-primary basis for non-government fixed-satellite service (FSS) space-to-Earth links with use limited to international inter-continental systems and subject to a case-by-case electromagnetic analysis in accordance with US footnote 245 of the Table of Frequency Allocations. In the NOI in this proceeding we requested comment on the necessity of maintaining the US245 restrictions on FSS use of this band, considering that it would no longer be available for Federal Government use.[129] We received no comments addressing this issue. To facilitate the shared use of this band, we propose to maintain the restrictions set forth in US footnote 245 on use of 4660-4685 MHz. We request comment on this proposal. Commenters that support eliminating the restriction should fully describe how FSS service use would be compatible with Fixed and Mobile GWCS services .

2. Designation of Specific Services

62. Although we are proposing to establish a new service classification for the intended purpose of enhancing the ability of service providers to meet a variety of user needs, we also acknowledge the possibility of better accommodating these needs by prescribing rules that provide for utilization of the 4660-4685 MHz frequency band only by specific services. We seek comment on such an alternative approach.

63. Interested parties who oppose our proposed establishment of a GWCS category should suggest various ways in which use of the 4660-4685 band could be limited to specific services. For example, we seek comment on (1) what services should be treated as eligible, in connection with our assignment of channels in the band; (2) whether we should divide channels in the band in a manner which assigns Fixed services exclusively to certain channels and Mobile services exclusively to remaining channels in the band; (3) whether we should establish priorities for Fixed service or Mobile service use of some or all of the channels established in the band; and (4) whether we should assign some or all channels established in the band for exclusive use by private Fixed or Mobile Services. Proponents of this alternative approach for designating services in the 4660-4685 MHz frequency band should provide facts and arguments supporting their view that such an approach will better serve the Commission's objectives and the public interest than would the establishment of a General Wireless Communications Service that would permit use for these and additional applications.

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[128] See para. 46, supra.

[129] NOI, 9 FCC Rcd at 2177, n. 23.

B. Use of Spectrum

64. As discussed above, we believe that our proposed General Wireless Communication Service will benefit the public by providing licensees the opportunity to use the spectrum as they find appropriate. We tentatively conclude that it is likely that these uses will principally involve the provision of subscriber-based services, thus enabling us to propose competitive bidding as the assignment method for this spectrum.[130] Section 309(j)(2)(A) of the Communications Act provides that competitive bidding may be used by the Commission to assign spectrum if the "principal use" of the spectrum involves, or is reasonably likely to involve, the transmission or reception of communications signals to subscribers for compensation.[131] In the Competitive Bidding Second Report and Order, we established a general framework for evaluating whether particular service classifications can be considered to be used principally for the provision of subscriber-based services, and we seek comment regarding whether that general framework should be used with regard to the assignment of spectrum in the 4660-4685 MHz band.[132]

65. In the Competitive Bidding Second Report and Order, we concluded that we will determine principal use by comparing the amount of non-subscription use made by the licensees in a service as a class with the amount of subscriber-based use "on the basis of information throughput, time, or spectrum."[133] We found that the competitive bidding assignment method is permissible if "at least a majority of the use of a Commission regulated service or class of service [is] for service to subscribers for compensation."[134] In arriving at this approach, we rejected the notion that we must examine individual applications to determine each licensee's intended use of the spectrum.

66. Given the record before us, we believe that it is reasonable to conclude that the principal use of this spectrum under our proposed General Wireless Communications Service

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[130] See paras. 68-69, infra.

[131] See 47 U.S.C. § 309(j)(2)(A). See also Implementation of Section 309(j) of the Communications Act -- Competitive Bidding, Second Report and Order, PP Docket No. 93-253, 9 FCC Rcd 2348, 2353 para. 30, (1994) (Competitive Bidding Second Report and Order), recon., Second Memorandum Opinion and Order, 9 FCC Rcd 7245 (1994) (Competitive Bidding Reconsideration Order).

[132] See Competitive Bidding Second Report and Order, 9 FCC Rcd at 2353-54, paras. 30-36.

[133] Id. at 2354, para. 32. Given the fact that "there is no way to anticipate . . . all of the possible uses of the electromagnetic spectrum", we explicitly retained the ability to use any of these measurement criteria in evaluating particular service classifications. Id. at n.21.

[134] Id. at 2354, para. 32.

will involve or is reasonably likely to involve the receipt by the licensee of compensation from subscribers in return for enabling those subscribers to receive or transmit communications signals. As we have described, a number of commenters state that they seek use of this spectrum for such subscriber based services, including for interactive wireless cable and other wireless data, voice, and interactive services.[135] A number of commenters, however, propose uses of this spectrum, such as for private or broadcast auxiliary services, that would not be subscriber-based. Accordingly, while we believe that it is reasonably likely that the principal use of this spectrum under our proposed General Wireless Communications Service will be for subscriber based services, we request further comment on this tentative conclusion. Commenters addressing this issue should fully describe the service that they contemplate for the spectrum, whether the service would be Fixed or Mobile, and whether it would be private (for a licensee's internal use), commercial (subscriber-based), or non-common carriage but subscriber-based.

67. To help us make an accurate determination regarding the extent to which this spectrum will be used for subscriber-based services, we request that commenters describe their spectrum needs and provide an indication of the degree of competition expected within a particular geographic service area. Commenters should also describe as accurately as possible the types of geographic areas in which they anticipate operating in (e.g., rural, urban, top 50 markets), since the likelihood of subscriber use may vary among geographic areas.

C. Assignment Methods

1. Competitive Bidding

68. Sections 309(j)(1) and 309(j)(2) of the Communications Act[136] permits auctions where mutually exclusive applications for initial licenses or construction permits are accepted for filing by the Commission and where the principal use of the spectrum will involve or is reasonably likely to involve the receipt by the licensee of compensation from subscribers in return for enabling those subscribers to receive or transmit communications signals.[137] As we stated in the preceding section, we believe that the principal use of this spectrum will meet

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[135] See para. 40, supra. In addition it is unclear at this time whether AAVS, which In-Flight, in its January 24, 1995, Ex Parte filing, states can be provided at 4660-4685 MHz, would be considered a subscriber based service. In its Ex Parte filing, In-Flight merely states that "it is likely that AAVS will be largely advertiser supported." In-Flight Ex Parte filing at footnote 2. This appears to suggest that there will be at least some subscriber support for this service.

[136] 47 U.S.C. §§ 309(j)(1), 309(j)(2).

[137] For a discussion of our preliminary assumptions regarding the principal use of this spectrum, see paras. 64-67, supra.

these requirements.[138] In addition, Section 309(j)(2)(B) requires the Commission, before it may adopt the use of auctions to award licenses, to determine that use of competitive bidding will promote the objectives described in Sections 1 and 309(j)(3) of the Communications Act. We tentatively conclude that the use of competitive bidding to assign licenses in the 4660-4685 MHz band will promote these objectives. We believe that auctioning licenses in this band will lead to more speedy initiation of services than would use of comparative hearings, and that auctions will place licenses in the hands of those who value the spectrum most highly. Thus, competitive bidding will promote the availability, to all the people of the United States, of a rapid, efficient, nationwide, and worldwide telecommunications system with adequate facilities at reasonable charges, satisfying the objectives of Section 1 of the Communications Act.

69. Section 309(j)(3) of the Communications Act sets forth Congress's four objectives for competitive bidding, as follows:[139]

> (A) the development and rapid deployment of new technologies, products, and services for the benefit of the public, including those residing in rural areas, without administrative or judicial delays;
>
> (B) promoting economic opportunity and competition and ensuring that new and innovative technologies are readily accessible to the American people by avoiding excessive concentration of licenses and by disseminating licenses among a wide variety of applicants, including small businesses, rural telephone companies, and businesses owned by members of minority groups and women;
>
> (C) recovery for the public of a portion of the value of the public spectrum made available for commercial use and avoidance of unjust enrichment through the methods employed to award uses of that resource; and
>
> (D) efficient and intensive use of the electromagnetic spectrum.

We tentatively conclude that using a system of competitive bidding for assignments in the 4660-4685 MHz band will promote these four objectives. First, our experience with the auction program being used to award licenses to provide both narrowband and broadband PCS leads us to believe that auctions will, more quickly than other licensing schemes, lead to the development and rapid deployment of new technologies, products and services, thus satisfying the objective expressed in Section 309(j)(3)(A). Second, we believe that, with the benefit of the comments solicited below with respect to the treatment of "designated entities," we will be able to adopt competitive bidding rules that will advance the objectives of Section

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[138] See para. 66, supra.

[139] See 47 C.F.R § 309(j)(3).

309(j)(3)(B) relating to the promotion of economic opportunity and the dissemination of licenses among a wide variety of applicants. Third, use of auctions to assign 4660-4685 MHz band licenses will clearly advance the goals of Section 309(j)(3)(C) by enabling us to recover for the public a portion of the value of the public spectrum and avoid problems of unjust enrichment.[140] Finally, as we stated in the Competitive Bidding Second Report and Order, auctions tend "to reinforce the desire of licensees to make efficient and intensive use of . . . spectrum. Auctions make explicit what others are willing to pay to use the spectrum, and the licensees' need to recoup the out-of-pocket expenditure for a license should provide additional motivation to get the most value out of the spectrum."[141] As noted above, we anticipate that any system of competitive bidding we adopt would be designed to lead to the assignment of licenses to those parties who value the licenses most highly and who thus can be expected to make efficient and intensive use of the spectrum, as contemplated by Section 309(j)(3)(D). In light of the foregoing, we tentatively conclude that competitive bidding should be used to award licenses in the 4660-3685 MHz band in the new General Wireless Communications Service if mutually exclusive applications are filed. We request comment regarding this tentative conclusion.

2. Other Assignment Methods

70. Although we are proposing the use of a system of competitive bidding to assign licenses for the General Wireless Communications Service in the 4660-4685 MHz band, we also seek comment regarding whether we should utilize a different assignment method.[142]

a. Spectrum Principally Used for Subscriber-Based Services

71. If the principal use of spectrum in the band is reasonably likely to involve subscriber-based services, then we have the discretion to use a system of competitive bidding to assign licenses in the band if we determine that auctions will promote the objectives delineated in the Communications Act.[143] If we determine, in a case in which the principal use of spectrum in the band is reasonably likely to involve subscriber-based services, that those objectives would not be promoted by the use of a system of competitive bidding, then our only alternative is to use comparative hearings as a means of assigning all licenses in the band.

72. Thus, parties favoring the use of comparative hearings as the method for licensing subscriber-based services should address these issues in their comments. First, commenters

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[140] See also para. 98, infra (proposed regulatory safeguards to prevent unjust enrichment).

[141] Competitive Bidding Second Report and Order, 9 FCC Rcd 2358, para. 58.

[142] See, e.g., 47 C.F.R. §§ 1.972, 1.973, 22.131(c)(1).

[143] See 47 U.S.C. §§ 151, 309(j)(3).

should address the soundness of our tentative conclusion that use of competitive bidding in this instance will promote the objectives established in the Communications Act. Commenters should present arguments, for example, illustrating the manner in which the use of competitive bidding would fail to promote the development and rapid deployment of new technologies and services, would fail to enhance economic opportunity and competition, or would be deficient in promoting efficient and intensive use of the public spectrum. In addition, commenters may present arguments regarding comparative hearings as a mechanism for ensuring the rapid deployment of new technologies and services[144] and for recovering "for the public . . . a portion of the value of the public spectrum resource made available for commercial use . . . ."[145] If such comments lead us to conclude that our tentative conclusions regarding the extent to which competitive bidding promotes the objectives of the Act are not sound, then we will prescribe comparative hearings as the method for assigning licenses in the 4660-4685 MHz band. However, our tentative decision to use a system of competitive bidding to assign licenses in the 4660-4685 MHz band reflects our view that comparative hearings would not be an effective method for this purpose, in part because our "experience with comparative hearings has shown they usually are prolonged."[146] Further, "[a]s a general matter . . . we are reluctant to substitute our judgment for the wisdom of the marketplace by dictating outcomes based on assessment of the relative merits of applicants' service proposals."[147] We seek comment on these tentative views.

b. Spectrum Not Principally Used for Subscriber-Based Services

73. The Communications Act provides that the Commission has the discretion to use a system of random selection to grant licenses involving a use of the spectrum in cases of mutually exclusive applications if the Commission has determined that the principal use of the spectrum will not involve subscriber-based services.[148] Alternatively, the Commission could employ comparative hearings to grant licenses in such cases.

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[144] See 47 U.S.C. § 309(j)(3)(A).

[145] See 47 U.S.C. § 309(j)(3)(C).

[146] Amendment of the Commission's Rules to Establish Rules and Policies Pertaining to a Mobile Satellite Service in the 1610-1626.5/2483.5-2500 MHz Frequency Bands, Notice of Proposed Rulemaking, CC Docket No. 92-166, 9 FCC Rcd 1094, 1114, para. 40 (1994) (MSS Notice).

[147] Amendment of the Commission's Rules to Establish Rules and Policies Pertaining to a Mobile Satellite Service in the 1610-1626.5/2483.5-2500 MHz Frequency Bands, Report and Order, CC Docket No. 92-166, FCC 94-261, at para. 66, released Oct. 14, 1994 (MSS Report and Order).

[148] See 47 U.S.C. § 309(i).

74. As indicated in our previous discussion, we have reached the tentative view that, based on the record thus far established in this proceeding, it is reasonable to conclude that the principal use of spectrum in the proposed General Wireless Communications Service will involve or is reasonably likely to involve the receipt by licensees of compensation from subscribers in return for enabling those subscribers to receive or transmit communications signals. If, however, the pleadings in response to this Notice demonstrate that there is not a reasonable basis for expecting that the principal use of the spectrum will be for subscriber-based services, then we must determine whether to employ lotteries or comparative hearings as the assignment method for licenses in the band.

75. We tentatively conclude that, if we determine that the principal use of the proposed General Wireless Communications Service or other service in the 4660-4685 MHz band will not be for subscriber-based services, then the public interest will be better served through the use of a random selection method to assign licenses in the band. It is our tentative view that a lottery system would be preferable to comparative hearings because it would expedite the grant of licenses and would be capable of resulting in the provision of adequate service to users.[149] If a system of random selection is used to award licenses in the 4660-4685 frequency band, we propose to implement this system in essentially the same manner as the framework we are proposing in this Notice for a system of competitive bidding.[150] That is, the rules we propose for channelization and aggregation of frequency blocks, for license areas, and for applicant eligibility in the case of a system of random selection are the same as in the case of auctions. We seek comment on this proposed general

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[149] See MSS Notice, 9 FCC Rcd at 1118, para. 46. In assessing the relative merits of lotteries and comparative hearings for granting licenses for public mobile services and certain other services, we have found that a system of random selection is preferable:

> Although this Commission is always chary of imposing new regulations on the communications industry, we believe in this case that the benefits of the lottery regulations far outweigh their costs. Lotteries will help speed provision of service to the public by eliminating the costly and time consuming comparative hearings while still maintaining some relative advantage for minorities and others underrepresented in the ownership of mass media facilities. The Commission holds great hope for lotteries . . . .

Amendment of the Commission's Rules to Allow the Selection from Among Certain Competing Applications Using Random Selection or Lotteries Instead of Comparative Hearings, Second Report and Order, 93 FCC 2d 952, 997, para. 131 (1983), recon. denied, 49 Fed. Reg. 49466 (Dec. 20, 1984).

[150] See paras. 77-83, infra.

framework. We also seek comment on specific procedural rules we might establish for lotteries.[151]

3. Mutual Exclusivity

76. One important aspect of any assignment method is determining whether applications are mutually exclusive. The Communications Act states that "[n]othing in [Section 309(j)], or in the use of competitive bidding, shall . . . be construed to relieve the Commission of the obligation in the public interest to continue to use engineering solutions, negotiation, threshold qualifications, service regulations, and other means in order to avoid mutual exclusivity in application and licensing proceedings . . . ."[152] We propose to use a 30-day filing window or other application cut-off method to allow for competing initial applications.[153] Because the 4660-4685 MHz band is currently unlicensed and the Commission has proposed to use defined service areas for each license, we need not be concerned at this time about situations where an application to modify a station authorization is mutually exclusive with an initial license application. We seek comment on this proposal, particularly whether some other type of filing group would be more appropriate for determining whether initial applications are mutually exclusive. For example, with private services, in particular, the Commission has often attempted to reduce the possibility of mutual exclusivity between initial applicants by adopting "first come, first served" procedures[154] and utilizing frequency coordinators.[155]

D. Channelization; Aggregation

77. We propose that the 4660-4685 MHz band be licensed in five blocks, each of which would be 5 megahertz wide. Many of the subscriber based uses discussed by commenters for this band, such as interactive video, voice, and data, as well as non-subscriber based uses such as auxiliary broadcast or private services, require relatively wide bandwidth. In order to provide licensees as much opportunity as possible to obtain the amount of spectrum they need to offer their particular service, we propose to permit licensees to obtain multiple 5 megahertz blocks. Based on available information about the likely services to be provided in this band, we tentatively conclude that no licensee would need more than 15 megahertz in a single market area. Therefore, we propose to limit a single entity from obtaining more than three of these blocks in a single geographic licensing area. We request

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[151] See, e.g., 47 C.F.R. §§ 1.821-1.825, 1.972, 1.1601-1.1603.

[152] 47 U.S.C. § 309(j)(6)(E).

[153] See, e.g., 47 C.F.R. § 22.131.

[154] See, e.g., 47 C.F.R. § 1.953.

[155] See, e.g., 47 C.F.R. § 90.175.

comment on this proposal and whether an alternative channelization plan might be more beneficial. Commenters should provide the specifics of any alternative channelization plan if they believe an alternative plan is appropriate and should provide full support for their views. In particular, interested parties who have advocated particular applications for the 4660-4685 MHz frequency band, in earlier comment rounds in this proceeding, are invited to present facts and arguments supporting channelization plans that may be more conducive to the service applications they favor.

78. We also propose that, regardless of the specific service to be provided, this spectrum will not count against the 45 MHz spectrum cap that applies to certain commercial mobile radio service (CMRS) licensees.[156] We propose this for two reasons. First, this band is at a substantially higher frequency than any currently available mobile radio system. As a result, it is unlikely that off-the-shelf equipment to provide services competitive with CMRS services will be available for use in this band within the next few years. Second, unlike all other allocations for two-way CMRS services, this allocation is for a single, unpaired frequency band. Although it may be possible in the future to provide a CMRS service that is competitive with existing or planned CMRS services on unpaired spectrum, we do not believe that this will be feasible in the near future. Consequently, until it is feasible to offer services competitive with existing and planned CMRS services on this new band, we believe it would be premature to include spectrum assignments in this band toward the spectrum cap adopted in the CMRS proceeding. We request comment on this proposal.

E. License Area

79. Under our Fixed and Mobile allocation, we propose that all licenses issued be based on Major Trading Areas (MTA).[157] Because we have adopted an allocation that allows

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[156] Implementation of Section 3(n) and 332 of the Communications Act -- Regulatory Treatment of Mobile Services, Third Report and Order, GN Docket No. 93-252, 9 FCC Rcd 7988, 8109-10, para. 263 (1994), recon. pending (The spectrum cap currently applies to personal communications services, specialized mobile radio services, and cellular services.).

[157] MTAs are defined in the Rand McNally 1992 Commercial Atlas & Marketing Guide 36-39 (123d ed. 1992). There are 47 MTAs, as defined by Rand McNally. Following the approach we have taken with regard to other services in which we have used MTA license areas, we propose to separate Alaska from the Seattle, Washington, MTA so that Alaska would be licensed as a separate MTA-like area. We also propose to license separately the following additional MTA-like areas:

(1) Guam and the Northern Mariana Islands.

(2) Puerto Rico and the United States Virgin Islands.

for use of the spectrum by any Fixed or Mobile service, we cannot determine the most appropriate size of the service area based on the type of service to be offered. Therefore, we believe that it is important to balance our desire to provide areas small enough to deploy niche services, or services aimed at rural or relatively rural areas, while providing a large enough area for those licensees that wish to provide wide-area or regional service. We tentatively conclude that MTAs provide the best compromise in this situation. We do not propose to restrict the number of MTAs in which a party may obtain a license. Thus, a licensee may aggregate licenses to offer a regional or nationwide service.

80. On the other hand, because the MTA may be too large for some licensees, we propose to permit licensees to lease the rights to operate a general wireless communication system within portions of their authorized geographic service area or transfer a portion of their license to geographically partition their service area, allowing another party to be licensed in the partitioned area. Of course, such a transfer would be subject to Commission approval as required by the Communications Act[158] We request comment on these proposals. In particular, we request that commenters address specific procedures for leasing or partitioning a geographic area. For example, should the Commission use partitioning procedures similar to those used for cellular licenses and adopted for broadband PCS licenses? Should the Commission develop leasing procedures similar to those we use for FM subcarriage? Entities that believe that licensing should be based on areas other than MTAs should fully support their alternative proposal.

81. If we determine that a mix of subscriber, non-subscriber, and private- based services is likely in the 4660-4685 MHz band, we may issue licenses based on different geographic regions for different portions of the bands or for different areas of the Nation.

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(3) American Samoa.

Thus, we propose to license a total of 51 MTA or MTA-like areas on each spectrum block. We note that Rand McNally & Company owns the copyright to Major Trading Area and Basic Trading Area Listings, which list the BTAs contained in each MTA and the counties within each BTA, as embodied in Rand McNally's Trading Area System MTA/BTA Diskette, and geographically represented in the map contained in Rand McNally's Commercial Atlas & Marketing Guide. The Personal Communications Industry Association and Rand McNally have recently entered into an agreement regarding the use of Rand McNally's market area designations (i.e., Basic Trading Areas and Major Trading Areas) for the licensing of various mobile radio services. Services in the millimeter wave spectrum in the 4660-4685 MHz frequency band are not covered by this agreement. The listings of the Major Trading Areas, including the counties, parishes, and census divisions that comprise each MTA, are available for public inspection in the Office of Engineering and Technology's Technical Information Center, 2nd Floor, 2000 M Street, N.W., Washington, D.C.

[158] 47 U.S.C. § 310(d).

For example, we could issue MTA licensees for 4660-4675 MHz and issue BTA licenses for 4675-4685 MHz, or we could issue MTA licenses in highly populated areas such as the Northeast and Southern California where subscriber based services may be more likely to be offered and BTA licenses in all other geographic areas. We seek comment on these alternative service area proposals.

82. Commenters that seek spectrum for non-subscriber based services should address the issue of whether we should allow licensees to sell or lease their excess capacity. We propose that licensees offering non-subscriber based services not be permitted to lease or transfer control of any part of its license for at least 5 years from the date the license is granted. Also, because non-subscriber-based entities might obtain potentially valuable licenses for free if a system of competitive bidding is not used, to ensure that such entities do not acquire such spectrum for speculative purposes, we propose that a licensee offering a non-subscriber based service not be permitted to lease excess capacity for at least 5 years after initial authorization.[159] We believe that such a requirement will help protect against speculators obtaining licenses. In addition, we propose that, if we determine that a licensee is providing a subscriber based service under a license issued under the presumption that the service to be provided was non-subscriber based, the license would be immediately forfeited. Alternatively, we request comment on whether such a licensee should be made to pay the U.S. Treasury an amount of money based on the auction price of a comparable license. Commenters supporting the latter approach should provide as much detail as possible as to how the value of the license should be determined and whether payment should include some unjust enrichment payment[160] (e.g., the value of the license plus 10 percent).

F. Eligibility

83. If we determine that it is reasonably likely that the services to be provided will be commercial services, we propose no restrictions on eligibility to apply for licenses in this band other than those foreign ownership restrictions that apply to CMRS and common carrier fixed system licensees,[161] and the restriction on foreign governments or their representatives related to the holding of private mobile radio service licenses.[162] Although rural telephone companies would be eligible, we do not propose to treat them differently than other applicants. Thus, we will not allow rural telephone companies to obtain licenses without

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[159] See 47 C.F.R. § 90.733(d).

[160] See 47 U.S.C. §§ 309(i)(4)(C), 309(j)(4)(E).

[161] 47 U.S.C. § 310(b).

[162] 47 U.S.C. § 310(a).

participating in an auction, as suggested by Leaco.[163] We seek comment on these proposals. We also request that commenters seeking spectrum for non-commercial services provide as complete information as possible regarding eligibility restriction that should apply.

G. Competitive Bidding Issues

84. We have proposed that, to the extent that we determine that it is reasonably likely that some or all of the 4660-4685 MHz band will be used for services that meet the criteria for issuing licenses pursuant to auctions, we will use auctions to issue licenses. Accordingly, we wish to fully explore issues related to competitive bidding.

1. Competitive Bidding Design

a. General Competitive Bidding Principles

85. The Competitive Bidding Second Report and Order, as modified by the Competitive Bidding Reconsideration Order, established the criteria to be used in selecting which auction design method to use for each particular auctionable service. Generally, we concluded that awarding licenses to those parties who value them most highly will foster Congress' policy objectives. In this regard, we noted that since a bidder's ability to introduce valuable new services and to deploy them quickly, intensively, and efficiently increases the value of a license to that bidder, an auction design that awards licenses to those bidders with the highest willingness to pay tends to promote the development and rapid deployment of new services and the efficient and intensive use of the spectrum.[164]

86. Based on the foregoing, we concluded that where the licenses to be auctioned are interdependent and their value is expected to be high, simultaneous multiple round auctions would best achieve the Commission's goals for competitive bidding.[165] We also noted, however, that simultaneous multiple round auctions may not be appropriate for all licenses.

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[163] Leaco comments at 7-9. We note that we have already taken significant steps to help rural telephone companies obtain PCS spectrum, including increasing from 20 percent to 40 percent the cellular attribution threshold for rural telephone companies with non-controlling cellular interests in their service areas and allowing broadband PCS licenses to be geographically partitioned. See Implementation of Section 309(j) of the Communications Act -- Competitive Bidding, Fifth Report and Order, PP Docket No. 99-253, 9 FCC Rcd 5532, 5597-99, paras. 148-153 (1994) (Competitive Bidding Fifth Report and Order), recon., Fourth Memorandum Opinion and Order, 9 FCC Rcd 6858 (Competitive Bidding Fourth Memorandum Opinion and Order), Fifth Memorandum Opinion and Order, 10 FCC Rcd 403 (1994) (Competitive Bidding Fifth Memorandum Opinion and Order).

[164] See Competitive Bidding Second Report and Order, 9 FCC Rcd at 2360-61, para. 70.

[165] See id. at 2367, paras. 109-111.

For example, where there is less interdependence among licenses, there is less benefit to auctioning them simultaneously. Similarly, we explained that when the values of particular licenses to be auctioned are low relative to the costs of conducting a simultaneous multiple round auction, we may consider auction designs that are relatively simple, with low administrative costs and minimal costs to the auction participants.[166]

b. Competitive Bidding Methodology for Licenses in the 4660-4685 MHz Band

87. We believe that simultaneous multiple round bidding should be the preferred method for licensing of the proposed 5 MHz-wide MTA spectrum blocks. Based on the record in this proceeding and our experience with the auctioning of other licenses, we expect the proposed licenses to be of sufficient value to warrant the use of simultaneous auctions. We further believe that the value of these MTA licenses for certain contemplated uses will be significantly interdependent because of the desirability of aggregation across spectrum blocks and geographic regions. Simultaneous multiple round bidding will allow bidders to express the value of the interdependency among licenses better than if licenses are auctioned separately. Moreover, simultaneous multiple round bidding will provide bidders with the opportunity to pursue back-up strategies that enable them most efficiently to obtain the license combinations which satisfy their service needs. Therefore, we tentatively conclude that simultaneous multiple round bidding is most likely to award MTA licenses to bidders who value them the most highly and who are most likely to deploy new technologies and services rapidly. We ask commenters to address this tentative conclusion and whether any other competitive bidding designs might be more appropriate for the licensing of this spectrum, particularly if the number of mutually exclusive applications actually received for the individual MTA blocks suggests that the blocks are not substantially interdependent.

88. Assuming we use simultaneous multiple round auctions for these licenses, we also seek comment on which blocks should be auctioned together, the intervals between rounds in each auction, and the sequencing of each auction. The importance of the choice of license groupings increases with the degree of interdependence among the individual licenses or groups of licenses to be auctioned. Grouping interdependent licenses together and putting them up for bid at the same time will facilitate awarding licenses to bidders who value them the most highly by providing bidders with information about the prices of complementary and substitutable licenses during the course of an auction. Based on these principles, our tentative view is that all 255 licenses (51 MTA licenses on each of 5 spectrum blocks) should be auctioned simultaneously because of the relatively high value and significant interdependence of the licenses. We seek comment on this tentative analysis and on possible alternatives for grouping of licenses.

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[166] See id. at 2367, paras. 112-113.

c. *Combinatorial Bidding*

89. Combinatorial bidding is an auction method which allows bidders to bid for multiple licenses as all-or-nothing packages, e.g., all licenses nationwide on a particular spectrum block, with the licenses awarded as a package if the combinatorial bid is greater than the sum of the high bids on the individual licenses in the package. The advantages and disadvantages of combinatorial bidding were carefully analyzed in the Competitive Bidding Second Report and Order.[167] We indicated particular concern about the complexity and cost of combinatorial bidding and the potential of such auctions to award licenses in combinations even though they may be of greater value if awarded separately. Thus, while recognizing the potential benefits of combinatorial bidding in facilitating aggregations, we concluded that much of that same benefit could be obtained through the use of simultaneous auctions without the complexity and potential distortions of combinatorial bidding. We stated that we did not then plan to use combinatorial bidding in simultaneous multiple round auctions, such as we are proposing here. Nevertheless, we also recognized that the Congressional mandate in Section 309(j)(3) of the Communications Act implies that we should periodically reevaluate the efficiency of auction designs and, where appropriate, test alterative methodologies.[168] For reasons that we will explain below, we believe that it may be appropriate to allow bidders to submit combinatorial bids for nationwide aggregations of MTA licenses in the 4660-4685 MHz band. We request comment on whether to allow combinatorial bidding for this band and ask commenters to address the specific options described below.

90. For some of the services proposed in the comments in this proceeding (e.g., air/ground and MSS feeder links), it may be necessary or at least highly desirable that spectrum used in such applications be licensed to the same entity nationwide. While geographic aggregation is generally facilitated in a simultaneous auction, a business plan that depends critically on winning every MTA license on a particular block nationwide may be at a disadvantage absent combinatorial bidding even if it represents the highest valued use of the spectrum. This problem could arise because of the increased risk a bidder attempting to aggregate nationwide may face if the total price of the aggregation rose above its value to that bidder, but the bidder is not outbid on all its high bids so it is forced either to withdraw its remaining high bids late in the auction and possibly incur a bid withdrawal penalty or pay too much for the remaining licenses that do not provide complete nationwide coverage. Increased risk could discourage nationwide bidders from fully expressing the value of nationwide aggregations, causing the spectrum ultimately to go to lower valued uses.

91. One way to overcome this difficulty would be to allow the submission of nationwide combinatorial bids for all MTA licenses on the same spectrum blocks. By limiting combinatorial bids to nationwide aggregations, we would reduce the complexity

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[167] Id. at 2366-67, paras. 98-115.

[168] 47 U.S.C. § 309(j)(3).

concern about unlimited combinatorial bidding that we expressed in the Second Report and Order. However, there is still the concern, also expressed in the Second Report and Order, that the auction results could be biased in favor of nationwide aggregations under this approach. An inefficient outcome could occur if a combinatorial bid exceeded the sum of individual MTA high bids and the MTA bidders, individually acting as "free riders," were unable collectively to raise their total bid above the combinatorial bid even though they collectively valued the licenses more highly. This might happen if some MTA bidders did not increase their bids on the expectation that others in the group would increase their bids sufficiently to beat the combinatorial bid. A possible method of addressing the free rider problem would be to set bid increments on individual licenses so as to proportionally allocate any gap between the sum of the highest individual bids and the highest combinatorial bid in a round. For example, if the sum of the highest individual bids were $100 and the highest combinatorial bid were $110, the minimum bid increment on individual licenses would be 10 percent of the previous high bid. A potential difficulty with this approach is that it may set the minimum bid price on certain individual licenses above the maximum amount any bidder is willing to pay, although the sum of the maximum amount bidders are willing to pay for licenses individually exceeds the greatest amount any bidder is willing to pay for all the licenses as a group. Another way to address the free rider problem would be to establish a bidding premium for the combinatorial bid. For example, for a nationwide bid to be accepted, it must be at least 5 percent more than the sum of the individual bids. The bidding premium could be used either in conjunction with the proportional bid increment approach or separately. We seek comment on these proposals for the use of combinatorial bidding in the 4660-4685 MHz band.

92. Other auction designs might also be used to facilitate combinatorial bidding. One approach would be an "Electronic Interactive Combinatorial Auction" (EICA) using the "Adaptive User Selection Mechanism" (AUSM) as developed by Banks, Ledyard and Porter and proposed by NTIA.[169] In a laboratory setting the stand-by queue in the AUSM mechanism has been an effective mechanism for enabling bidders for individual items or smaller packages to coordinate bids against bidders for larger packages. Although the stand-by-queue facilitates coordination it does not solve the free rider problem in theory, and the laboratory results may not generalize to FCC auctions where bidders have employed leading game theorists to exploit the rules. We request comment on the feasibility of using this type of auction design. In particular, commenters should address whether the use of such an auction design may violate our collusion rules.[170]

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[169] J.S. Banks, J.O. Ledyard, and D.P. Porter, "Allocating Uncertain and Unresponsive Resources: An Experimental Approach," 20 RAND JOURNAL OF ECONOMICS 1-22 (1989). Ex parte submission of NTIA, February 28, 1994. See also Competitive Bidding Second Report and Order, 9 FCC Rcd at 2365-66, paras. 99-105.

[170] See para. 100, infra.

d. Bidding Procedures

93. We also seek comment on bidding procedures to be used in the 4660-4685 MHz auctions, including bid increments, duration of bidding rounds, stopping rules, and activity rules. Assuming that we use simultaneous multiple round auctions, we generally propose to use the same or similar bidding procedures to those used in simultaneous multiple round bidding for MTA-based PCS licenses.[171] We seek comment, however, on whether any variations on these procedures should be adopted for licenses in the 4660-4685 MHz band.

2. Procedural, Payment, and Penalty Issues

94. In the Competitive Bidding Second Report and Order, as modified by the Competitive Bidding Reconsideration Order, the Commission established general procedural, payment, and penalty rules for auctions, but also stated that such rules may be modified on a service-specific basis.[172] As discussed below, we generally propose to follow the procedural, payment, and penalty rules established in Subpart Q of Part 1 of the Commission's Rules,[173] but seek comment on whether any service-specific modifications of these rules are needed based on the particular characteristics of the 4660-4685 MHz band licenses.

a. Upfront Payments

95. As in the case of other auctionable services, we propose to require participants in the 4660-4685 MHz auction to tender to the Commission in advance of the auction, a substantial upfront payment as a condition of bidding in order to ensure that only serious, qualified bidders participate in auctions and to ensure payment of the penalty (discussed infra) in the event of bid withdrawal or default. We seek comment on whether the standard upfront payment formula of $0.02 per pop per MHz for the largest combination of MHz-pops a bidder anticipates bidding on in any single round of bidding is appropriate for these licenses. We also seek comment on the appropriate minimum upfront payment for applications. In the Competitive Bidding Second Report and Order, we established a minimum upfront payment of $2,500, but we also indicated that the minimum amount could be modified on a service-specific basis.[174] We seek comment on whether the standard or some alternative amount is appropriate for the licenses in the 4660-4685 MHz band.

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[171] See, e.g., Competitive Bidding Fifth Report and Order, 9 FCC Rcd at 5541-56, recon., Competitive Bidding Fourth Memorandum Opinion and Order, 9 FCC Rcd at 6859-6864.

[172] See Competitive Bidding Reconsideration Order, 9 FCC Rcd at 7249-50, paras. 23-26.

[173] 47 C.F.R Part 1, Subpart Q.

[174] Competitive Bidding Second Report and Order, 9 FCC Rcd at 2379, para. 180.

b. Down Payment and Full Payment for Licenses Awarded by Competitive Bidding

96. The Competitive Bidding Second Report and Order generally required successful bidders to tender a 20 percent down payment on their bids to discourage default between the auction and licensing and to ensure payment of the penalty if such default occurs.[175] We concluded that a 20 percent down payment was appropriate to ensure that auction winners have the necessary financial capabilities to complete payment for the license and to pay for the costs of constructing a system, while at the same time not being so onerous as to hinder growth and diminish access. We therefore propose to require that winning bidders for 4660-4685 MHz licenses supplement their upfront payments with a down payment sufficient to bring their total deposits up to 20 percent of their winning bid(s). We seek comment on whether this is an appropriate requirement for licensing of this service, and whether 20 percent represents an appropriate level of payment. In addition, we ask commenters to address whether any special provisions, for example a reduced down payment, should be adopted for designated entities, and if so, for which specific categories of designated entities and why.[176]

c. Bid Withdrawal, Default, and Disqualification

97. We propose to adopt bid withdrawal, default, and disqualification rules for 4660-4685 MHz licensing based on the procedures established in our general competitive bidding rules. Under these procedures, any bidder who withdraws a high bid during an auction before the Commission declares bidding closed, or defaults by failing to remit the required down payment within the prescribed time, would be required to reimburse the Commission in the amount of the difference between its high bid and the amount of the winning bid the next time the license is offered by the Commission, if the subsequent winning bid is lower. A defaulting auction winner would be assessed an additional penalty of three percent of the subsequent winning bid or three percent of the amount of the defaulting bid, whichever is less. In the event that an auction winner defaults or is otherwise disqualified, we propose to re-auction the license either to existing or new applicants. The Commission would retain discretion, however, to offer the license to the next highest bidder at its final bid level if the default occurs within five business days of the close of bidding. We seek comment on these proposed procedures.

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[175] Id. at 2381-82, paras. 190-192.

[176] See paras. 101-115, infra.

3. Regulatory Safeguards

a. Unjust Enrichment Provisions

98. The Budget Act directs the Commission to "require such transfer disclosures and anti-trafficking restrictions and payment schedules as may be necessary to prevent unjust enrichment as a result of the methods employed to issue licenses and permits." We therefore propose to adopt the transfer disclosure requirements contained in Section 1.2111(a) of our rules for all 4660-4685 MHz licenses obtained through the competitive bidding process. In addition, we propose specific rules governing unjust enrichment by designated entities, which are discussed below. Generally, applicants transferring their licenses within three years after the initial license grant will be required to file, together with their transfer application, the associated contracts for sale, option agreements, management agreements, and all other documents disclosing the total consideration received in return for the transfer of its license. We seek comment on these proposals.

b. Performance Requirements

99. The Budget Act requires the Commission to "include performance requirements, such as appropriate deadlines and penalties for performance failures, to ensure prompt delivery of service to rural areas, to prevent stockpiling or warehousing of spectrum by licensees or permittees, and to promote investment in and rapid deployment of new technologies and services."[177] In the Competitive Bidding Second Report and Order, we decided that it was unnecessary and undesirable to impose additional performance requirements, beyond those already provided in the service rules, for all auctionable services. Our proposed 4660-4685 MHz service rules contain specific performance requirements, such as the requirement to construct and provide service within a specific period of time. Thus, we do not propose to adopt any additional performance requirements for competitive bidding purposes. We seek comment on this proposal.

c. Rules Prohibiting Collusion

100. In the Competitive Bidding docket, we adopted special rules prohibiting collusive conduct in the context of competitive bidding.[178] We indicated that such rules would serve the objectives of the Budget Act by preventing parties, especially the largest

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[177] 47 U.S.C. § 309(j)(4)(B).

[178] 47 C.F.R. § 1.2105(c). Competitive Bidding Second Report and Order, 9 FCC Rcd 2386-88, paras. 221-226; Competitive Bidding Reconsideration Order, 9 FCC Rcd at 7254, paras. 50-53; Implementation of Section 309(j) of the Communications Act -- Competitive Bidding, Memorandum Opinion and Order, PP Docket 93-253, 9 FCC Rcd 7684, 7687-89, paras. 8-12 (1994).

firms, from agreeing in advance to bidding strategies that divide the market according to their strategic interests and disadvantage other bidders. We propose to apply these rules to the 4660-4685 MHz service. Under these procedures, bidders will be required to identify on their applications all parties with whom they have entered into any consortium arrangements, joint ventures, partnerships, or other agreements or understandings that relate to the competitive bidding process. Bidders will also be required to certify that they have not entered into any explicit or implicit agreements, arrangements, or understandings with any parties, other than those identified, regarding the amount of their bid, bidding strategies or the particular properties on which they will or will not bid. We seek comment on the proposal to continue to implement our rules prohibiting collusive conduct. Specifically, commenters should address whether any procedures for combinatorial bidding would necessitate changes in our rules prohibiting collusive conduct.[179]

4. Treatment of Designated Entities

a. Introduction

101. In authorizing the Commission to use competitive bidding, Congress mandated that the Commission "ensure that small businesses, rural telephone companies, and businesses owned by members of minority groups and women are given the opportunity to participate in the provision of spectrum-based services."[180] The statute requires the Commission to "consider the use of tax certificates, bidding preferences, and other procedures" in order to achieve this congressional goal.[181] In addition, Section 309(j)(3)(B) provides that in establishing eligibility criteria and bidding methodologies the Commission shall promote "economic opportunity and competition . . . 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 members of minority groups and women." Finally, Section 309(j)(4)(A) provides that to promote these objectives, the Commission shall consider alternative payment schedules including installment payments.

102. In the Competitive Bidding docket, we established eligibility criteria and general rules that would govern the award of special provisions for small businesses, rural telephone companies, and minority- and women-owned businesses (collectively, "designated entities"). We also established a menu of possible special provisions that could be awarded to designated entities in particular services, including installment payments, spectrum set-asides, bidding credits, and tax certificates. In addition, we set forth rules to prevent unjust enrichment by designated entities seeking to transfer licenses obtained through use of one of these special provisions.

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[179] See para. 92, supra.

[180] 47 U.S.C. § 309(j)(4)(D).

[181] Id.

103. In keeping with the general parameters set forth in the Competitive Bidding docket, we propose specific measures and eligibility criteria for designated entities in the 4660-4685 MHz service designed to ensure that such entities are given the opportunity to participate both in the competitive bidding process and in the provision of service in the 4660-4685 MHz band. We seek comment on these proposals, and specifically on identifying special provisions that are tailored to the unique characteristics of the service or services that might be offered in the 4660-4685 MHz band and will create meaningful incentives and opportunities in the service for small businesses and businesses owned by minorities and/or women.

b. Businesses Owned by Women and Minorities

(1) Specific Special Provisions

104. Based on the list of special provisions for designated entities established in the Competitive Bidding Second Report and Order, we propose to utilize bidding credits and installment payments to encourage participation by businesses owned by women and minorities in auctions for the 4660-4685 MHz band. We tentatively conclude that affording businesses owned by women and minorities bidding credits and installment payments for licenses is the 4660-4685 band is the most cost-effective and efficient means of achieving Congress' objective of ensuring an opportunity for these designated entities to participate in the provision of service in the 4660-4685 MHz band, while preserving the advantages of competitive open bidding. We propose that installment payments be available on all of the licenses in this spectrum and that bidding credits be available as an additional encouragement for licenses on one of the proposed 5 MHz spectrum blocks. We seek comment on this proposal.

105. Apart from Congress' directive, we believe that ensuring the opportunity for women and minorities to participate in providing service in the 4660-4685 MHz band is important for the telecommunications industry. The record in the Competitive Bidding docket reflects a severe underrepresentation of women and minorities in telecommunications.[182] The record in the docket also shows that women and minorities have particular difficulties obtaining capital.[183] Given this history of underrepresentation of minorities and women in telecommunications and the inability of these groups to access financing, we find that the best way we can accomplish the statutory mandate is to provide bidding credits and installment payments exclusively to minority- and women-owned businesses.

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[182] See Competitive Bidding Fifth Report and Order, 9 FCC Rcd at 5575-78, paras. 103-107.

[183] Id. at 5573-75, paras. 98-102. The findings made and discussion in the Competitive Bidding Fifth Report and Order on this subject are incorporated here by reference.