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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C.

FCC 93-455

In the Matter of	)	
	)	
Implementation of Section 309(j) of the Communications Act Competitive Bidding	)	PP Docket No. 93-253
	)	
	)	

NOTICE OF PROPOSED RULE MAKING

Adopted: September 23, 1993 Released: October 12, 1993

By the Commission: Commissioner Barrett issuing a separate statement.

Comment Date: November 10, 1993

Reply Comment Date: November 24, 1993

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Initial Regulatory Flexibility Analysis

1. On August 10, 1993, the Omnibus Budget Reconciliation Act of 1993 (Budget Act) added a new section 309(j) to the Communications Act of 1934, as amended, 47 U.S.C. §§ 151-713 (Communications Act). This amendment to the Communications Act gives the Commission express authority to employ competitive bidding procedures to choose from among two or more mutually exclusive accepted applications for initial licenses. The Budget Act also requires the Commission to prescribe regulations to implement Section 309(j) within 210 days after enactment, or by March 8, 1994. Further, the Budget Act requires the Commission to commence issuing licenses and permits in the Personal Communications Service (PCS) within 270 days of its enactment, or May 7, 1994. We therefore initiate this expedited proceeding to comply with the Budget Act's requirements. We also propose initial application procedures and other requirements for PCS.[1]

SUMMARY

2. This Notice of Proposed Rule Making implements provisions of the Omnibus Budget Reconciliation Act of 1993, which give the Commission explicit authority to use competitive bidding to award licenses for use of the radio spectrum. We propose that auctions be limited to a) mutually exclusive applications, b) initial license applications (and not renewal or modification applications), and c) radio communications services that principally use their spectrum to provide service to subscribers for compensation. Based on those criteria, we propose to exclude most mass media services and services used by public safety entities, for example, from competitive bidding.

3. However, we tentatively conclude that competitive bidding should begin immediately for Personal Communications Services (PCS), some services regulated by the Private Radio and Common Carrier Bureaus such as the Specialized Mobile Radio, Interactive Video Data Service, and certain cellular radio service applications.

4. We propose a variety of ways to meet the new law's requirement that small businesses, rural telephone companies, and businesses owned by women and minorities be given an opportunity to participate in the competitive bidding process. We ask for specific comments on setting aside blocks of spectrum for these designated groups, including a proposal to set aside a 20 MHz frequency block (Block C) and a 10 MHz block (block D) in context of broadband PCS to be licensed on a Basic Trading Area (BTA) basis. For both broadband and narrowband PCS, we also propose that these designated groups be able to pay for their licenses over time, and ask how tax certificates could be used to assist the designated groups as well.

5. We seek comment on alternative approaches for bidding, payment, deposits, safeguards, and bidder qualifications and eligibility. Further, we tentatively conclude that although we should have a broad menu of bidding methods, oral bidding should be the basic bidding method. We also seek comment on electronic bidding and sealed bidding. We ask for comment on the general concept of bidding for groups of licenses -- also known as combinatorial bidding -- and reach tentative conclusions for implementing group bidding for broadband PCS

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[1] Second Report and Order, GEN Docket No. 90-314, 8 FCC Rcd ____ (September 23, 1993)("PCS Report and Order"); First Report and Order in ET Docket No. 92-100 and GEN Docket No. 90-314, 58 Fed. Reg. 42681 (August 11, 1993).

licenses. Under group bidding, we would accept bids both for licenses individually and for all the individual licenses in the block. Licenses would be awarded as a group if a bid for the licenses as a group exceeded the sum of the highest bids for the licenses individually. If the sum of the individual bids were greater than the highest bid for the group, licenses would be awarded individually. Further, with respect to combinatorial bidding, we seek comment on providing an additional round of sealed bidding limited to winners of the first round.

6. We ask how licenses should be offered when bidding is conducted sequentially, and propose that for PCS services, the largest markets be auctioned first. We tentatively conclude that auction winners not designated by the Budget Act as deserving preferential treatment be required to pay in a lump sum upon license grant.

7. Bidding would be limited to qualified bidders. Under our preferred option, in order to participate in an auction, bidders would be required to tender in advance to the Commission a substantial upfront payment that would also serve as either the sole or an additional financial qualification in the service subject to auction. The amount of the payment would vary with the license being auctioned, and the Commission would retain the upfront payments of auction winners even if they are later disqualified.

8. The Budget Act of 1993 requires the Commission to begin licensing PCS within 270 days of enactment, and we propose to use both oral and sealed bidding in licensing broadband PCS. Oral bidding would be used in all cases except for bids on groups of licenses. For broadband PCS, we propose to permit group bidding to award all of the 51 Major Trading Area (MTA) licenses on each of two 30 MHz spectrum blocks, thereby facilitating nationwide service.

9. We ask for comment on whether this procedure should be used to facilitate grouping of PCS licenses with BTA service areas, and ask whether the Commission should accept sealed bids for all BTA licenses on an MTA basis and conduct oral auctions sequentially for individual BTA licenses. We also seek comment on the use of this combinatorial bidding to aggregate 10 MHz PCS licenses into 20 MHz or 30 MHz blocks.

10. We propose measures to prevent unjust enrichment of parties obtaining licenses via auction as well as licenses granted by lottery. We also seek comment on performance requirements to ensure prompt delivery of service and to prevent warehousing of spectrum. Finally, we seek comment on procedures to prevent collusion among bidders.

I. OVERVIEW OF THE NEW AUCTION LAW

11. Before addressing in detail provisions of the new law, we briefly describe the law's basic policies. Generally, the new legislation requires the Commission to satisfy several conditions before we may use competitive bidding to select licensees. First, there must be mutually exclusive applications that have been accepted for filing by the Commission; second, these applications must be for an initial license or construction permit; third, the license must be for a use described in Section 309(j)(2). Section 309(j)(2)(A) provides that competitive bidding may apply to a particular use of the electromagnetic spectrum if the Commission determines that

> (A) the principal use of that spectrum will involve, or is reasonably likely to involve, the licensee receiving compensation from subscribers in return for which the licensee

(i) enables those subscribers to receive communications signals that are transmitted utilizing frequencies on which the licensee is licensed to operate; or

(ii) enables those subscribers to transmit directly communications signals utilizing frequencies on which the licensee is licensed to operate.

12. Further, under Section 309(j)(2)(B), the Commission must determine that use of a system of competitive bidding will promote the objectives described in Section 309(j)(3), which, in addition to those in Section 1 of the Act, are

(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.

13. In addition, Subsection (j)(3) requires that the Commission, in identifying classes of licenses and permits to be assigned by competitive bidding, include safeguards to protect the public interest in the use of the spectrum. Under Subsection (j)(4) of the statute, the Commission, when promulgating bidding regulations, must also:

(A) consider alternative payment schedules and methods of calculation, including lump sums or guaranteed installment payments, with or without royalty payments, or other schedules or methods that promote the objectives described in paragraph (3)(B), and combinations of such schedules and methods;

(B) 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;

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

(D) ensure that small businesses, rural telephone companies, and businesses owned by members of minority groups and women are given the opportunity to participate in the provision of spectrum-based services, and, for such purposes, consider the use of tax

certificates, bidding preferences, and other procedures; and

(E) require such transfer disclosures and antitrafficking restrictions and payment schedules as may be necessary to prevent unjust enrichment as a result of the methods employed to issue licenses and permits.

14. In making the spectrum allocation decisions and in prescribing regulations under Section 309(j)(4)(C), the Commission is not permitted to base a finding of public interest, convenience, and necessity on the expectation of Federal revenues that would result from the use of competitive bidding. See Section 309(j)(7). Further, in Section 309(j)(3), Congress encouraged the Commission to design multiple alternative methodologies for competitive bidding.

15. There are a number of conditions precedent and conditions subsequent to the Commission's use of competitive bidding authority. Section 309(j)(10) requires that, before we may begin to license by competitive bidding, the Secretary of Commerce must have submitted a report on the reallocation of certain governmental frequencies and that report must contain certain findings. Also, prior to using competitive bidding, the Commission must have completed the rule making required by new Section 332(c)(1)(D) on the licensing of personal communications services.

16. Under Section 309(j)(10), our authority to issue licenses using competitive bidding will terminate after two years if the Secretary of Commerce, the President, or the Commission fail to take certain actions on a timely basis. Competitive bidding authority expires on September 30, 1998 in any event.

17. Finally, the new law provides that the Commission may not issue any license or permit by lottery after the date of enactment unless the spectrum's use is not a type for which auctions are permitted (as described in Section 309(j)(2)(A)), or, the application was accepted for filing before July 26, 1993. See Section 6002(c) (Special Rule). Under the Budget Act, therefore, mutually exclusive applications accepted for filing after July 26, 1993 may not be granted by lottery until the Commission determines whether the applicable radio service is not subject to competitive bidding under Section 309(j)(2)(A).

II. DISCUSSION

A. General Approach to Implementing Legislation

18. We propose certain broad design criteria furthering the goals mandated by Congress in order to develop rules to implement a system of competitive bidding. First, especially given the very short time within which we are required to implement competitive bidding regulations and initiate licensing of PCS, any system that we promulgate should be simple and easy to administer. Unnecessary complexity in conception or execution is likely to cause delay and frustrate Congress's intent to speed new services to the public. Second, inasmuch as the Commission has no experience in conducting spectrum auctions, we anticipate relying heavily on the experience of other government agencies who have successfully conducted auctions. Third, we seek systems of competitive bidding and associated rules that minimize costs to applicants and the Commission.

19. Further, we hope to implement general rules and regulations for competitive bidding that could apply to a variety of services and offerings. In this regard, we propose to

establish a new subpart to Part 1 of our Rules that would apply to competitive bidding generally. We see two possible ways in which we might amend our rules to accommodate the new process. First, we might propose a particular auction methodology to be applied for each service which we would auction. Second, we might propose to establish a variety of auction procedures in our rules, request comment in this proceeding as to the general appropriateness of particular types of auction procedures in various circumstances, and then choose from among the procedures as we announce individual auctions. Because as yet we have no actual experience with auctions, we think such rules should afford the Commission broad flexibility to select from among the procedures as it deems appropriate for individual services. Given that we intend to begin auctions of some services before others and in view of the limited time we have to conclude this proceeding, we tentatively conclude that the second course would be preferable. We also believe that this course would more closely comply with the Congressional directive that we "design and test multiple alternative methodologies under appropriate circumstances." See Section 309(j)(3). We might announce the auction method(s) for a particular service by Commission order, Bureau order, or Public Notice, and request comment on the appropriate means of doing so.

20. Although we propose to design general auction rules, we also propose applying these new rules to certain specific services immediately, including broadband and narrowband Personal Communications Services (PCS), all common carrier radio services, the Specialized Mobile Radio service, and the Interactive Video Data Service. We therefore seek comment not only on whether these general design criteria serve the public interest, but also on the ways in which we propose to conduct competitive bidding for those services such as PCS that we hope to license quickly.[2]

B. Principles for Determining Whether a License Should be Auctioned

21. Although both the legislation and the Conference Report are silent on this point, the House Report states at 254 that the Commission is expected to determine "auctionability" when a service or class of service is defined by the Commission or, if the service already exists, the Commission is to determine whether the service meets the test set forth in Section 309(j)(2). H.R. Rep. 111, 103d Cong. 1st Sess. 254 Sess. 254 (1993)(H.R.Rep. No. 103-111). We propose to use the services as currently defined by the Commission to conduct the review contemplated by Congress, and to identify those services that we tentatively conclude should be excluded from or subject to competitive bidding. We request comment on these tentative conclusions. Before conducting a service by service review, however, we shall discuss in greater detail the general criteria that must be met before competitive bidding is possible.

i. General Requirement for Mutual Exclusivity Among Applications for Initial Licenses or Construction Permits Accepted for Filing

22. By its terms, Section 309(j) only permits auctions if mutual exclusivity exists among applications that have been accepted for filing. Therefore, if mutual exclusivity among such applications does not exist, a license is not subject to competitive bidding.[3] We propose to incorporate this standard into our rules. Congress's use in Section 309(j)(1) of the term initial

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[2] We are confident that the conditions precedent to the Commission's exercise of competitive bidding authority will be satisfied and will proceed on that basis.

[3] In many services regulated by the Private Radio Bureau, mutual exclusivity cannot exist because the channels are shared by numerous licensees. Thus, no license would be denied on the basis of mutual exclusivity. See paras. 131-146, infra.

license or construction permit indicates that renewal licenses or permits are to be excluded from the competitive bidding process. See H.R. Rep. No. 103-111 at 253. It also does not appear that Congress expected that applications to modify existing licenses would be subject to competitive bidding.[4] We propose to confirm in our rules that neither renewal nor modification applications would be subject to competitive bidding.

ii. General Requirement of Subscribers

23. The next major criterion for competitive bidding is that the licensee have paying subscribers. The legislative history in H.R. Rep. No. 103-111 at 254, incorporated by reference in the Conference Report, makes clear that traditional over-the-air broadcast services would not be subject to competitive bidding (there being no subscriber fee).[5] Therefore, we propose to exclude from the competitive bidding process the following classes of licenses which provide broadcast services and request comment on our proposal:

a. Broadcast television (VHF, UHF, LPTV)

b. Broadcast radio (AM and FM)

We seek comment, however, on other mass media services that might be subject to competitive bidding (e.g., Direct Broadcast Satellite)[6] and specifically request that comments address how the statutory criteria for competitive bidding may apply to such services.

iii. "Private Services" Excluded

24. The term "private services" used in the legislative history refers solely to services that do not involve the receipt of compensation from subscribers. More specifically, portions of the House Report, which are incorporated by reference in the Conference Report, state that the enactment of competitive bidding authority

> should not affect the manner in which the Commission issues licenses for virtually all private services, including frequencies utilized by Public Safety Services, the Broadcast Auxiliary Service, and for subcarriers and other services where the signal is indivisible from the main channel signal.

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[4] See H. R. Rep. No. 103-111 at 253; cf. Maxcell Telecom Plus, Inc. v. FCC, 815 F.2d 1551 (D.C. Cir. 1987).

[5] H.R. Rep. No. 103-111 at 253-254 also notes that the fact that some television licensees may receive compensation from cable television operators as a result of the enactment of the "retransmission consent" provisions of the Cable Act should have no effect on the Commission's licensing of television stations. Similarly, the Conference Report at 481-82 makes clear that Instructional Television Fixed Service (ITFS) is not to be subject to competitive bidding even if ITFS licensees receive payments from Multichannel Multipoint Distribution Service licensees for the use of ITFS spectrum.

[6] See 47 C.F.R. § 100.3; See also Implementation of Section 25 of the Cable Television Consumer Protection Act of 1992, 8 FCC Rcd 1589 (1993). Commenters should note that DBS construction permits have been issued and several permittees have already received transponder assignments.

H.R. Rep. No. 103-111 at 253. It seems clear that in using the words "private services" in this manner, Congress did not intend the same meaning that the Commission has ascribed to them in other contexts. For example, the Private Radio Bureau regulates certain private land mobile services that do involve the receipt of compensation from subscribers, which could presumably be subject to competitive bidding. On the other hand, certain services identified by Congress as "private", e.g., Broadcast Auxiliary Services, have never been classified as private radio services as that term is understood and used by the Commission in its Rules.

25. It is also clear that the words "private services" are not the same as the term "private mobile service" as that term is defined in new Section 332(d)(3) as added by Section 6002 of the Budget Act. The distinction between "private mobile service" and "Commercial Mobile Service" in Section 332 turns on several criteria that are not relevant to Section 309(j), e.g., whether the service is interconnected to the public switched network and provided to a substantial portion of the public. See also Implementation of Sections 3(n) and 332 of the Communications Act-Regulatory Treatment of Mobile Services, GN Docket No. 93-252, adopted September 23, 1993 ("332 Rule Making"). Thus, it appears that a service could be classified as a private mobile service for purposes of Section 332 but not be deemed "private" for purposes of Section 309(j).[7] In determining which services are subject to competitive bidding, we intend to use the term "private services" to mean services that do not involve the receipt of compensation from subscribers and, hence, are outside the scope of Section 309(j)(2)(A). We request comment on our analysis.

26. Therefore, and as described more fully below, we propose that initial applications for spectrum in the common carrier fixed services, the new Commercial Mobile Services, certain private mobile services established by Section 332, and certain other services regulated by the Private Radio Bureau generally be subject to competitive bidding. Traditional common carriers have subscribers: by definition their services are offered indifferently to the public for hire.[8] We also propose that the new category of Commercial Mobile Service providers established by and defined in Section 6002, which involves subscribers and compensation, should likewise be subject to competitive bidding.[9] By contrast, the statute seems to exclude virtually all of those services which were "private services" in the sense that they did not involve the payment of compensation to the licensee by subscribers. Therefore, we propose that initial applicants for spectrum used principally for internal uses and not for services to subscribers be exempted from competitive bidding.

27. As a result of this analysis, some of the services now regulated by the Private Radio Bureau could be subject to competitive bidding, while others would not. In some cases, entire services, classes of licensees or permittees who use their licenses for "private services"

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[7] With this in mind, we propose that frequencies allocated to the Broadcast Auxiliary Services under Subparts D, E, F and H of Part 74 of our Rules be exempted from competitive bidding. We also propose that subcarrier-based and similar services, such as Vertical Blanking Interval, be exempted from competitive bidding where the underlying service is exempt. See H.R. Rep. No. 103-111 at 253. See also discussion of Public Safety entities, infra.

[8] Section 3(h), Communications Act, 47 U.S.C. § 153(h); Memorandum Opinion and Order, Docket No. 18262, 51 FCC 2d 945, 959 (1975), aff'd sub nom. NARUC v. FCC, 525 F.2d 630 (D.C. Cir.), cert. denied 425 U.S. 992 (1976).

[9] Commercial Mobile Service, as defined by Section 332, is a "for-profit" service and is treated as common carriage under Title II of the Act. 47 U.S.C. §§ 332(c)(1)(A) and (d)(1).

within the meaning the Section 309(j), such as the Amateur Radio Service, which is regulated under Part 97 of our Rules, would be excluded from auctions. In other cases, certain subclasses or subservices, such as the Specialized Mobile Radio (SMR) providers, who are part of the private land mobile service, might be subject to auctions while other subclasses of private land mobile service applicants might not be. We expand further on our proposal below.

iv. Intermediate Links

28. For some services the test of whether certain spectrum should be subject to competitive bidding requires further analysis. Some common carriers, for example, offer point-to-point microwave service as a common carrier offering. Such spectrum, it seems, would be subject to competitive bidding if the other criteria, such as mutual exclusivity, were met. Other common carriers utilize microwave as part of an end-to-end service offering, as when a cellular carrier transmits subscriber traffic between cell sites and its Mobile Telephone Switching Office, or a local exchange telephone company uses microwave as one means of transmitting local exchange telephone service. Similarly, cable television companies often utilize point-to-point microwave to transmit television programming to different points within or among systems although not directly to their subscribers.[10]

29. Section 309(j)(2)(A) requires, in order for there to be competitive bidding, that the subject spectrum enable subscribers "to receive communications signals" or to "transmit directly communications signals." It seems that the aforementioned examples would fall within this criterion: the microwave licenses are used as an integral part of an end-to-end service offering enabling paying subscribers either to transmit directly or receive communications signals utilizing frequencies on which the licensee is licensed to operate. We therefore propose that licenses used in services as an intermediate link in the provision of a continuous, end-to-end service to a subscriber would be subject to competitive bidding.[11] Such a result would also be administratively efficient because it would eliminate the necessity of determining the nature of the use being made of a particular license. We request comment on this proposal. In particular, commenters are requested to address the practical ramifications of this proposal on the internal operations or expansion of their existing businesses. Further, commenters should address the number of situations where mutual exclusivity could arise in this context.

v. Principal Use Requirement

30. In order for competitive bidding to apply, Section 309(j)(2) requires that the principal use of that spectrum must involve, or be reasonably likely to involve, the transmission or reception of communications signals to subscribers for compensation. There are a number of services, such as the private operational fixed service (POFS) licensed under Part 94 of the Rules, where the licensee may either provide service to itself only or may offer communication service to subscribers for compensation, or may provide service to itself as well as to subscribers.

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[10] Contrast such use of the spectrum for these Community Antenna Relay Services (CARS) with so-called "wireless cable" companies, which do use the airwaves to transmit programming directly to their subscribers.

[11] In this regard, as noted, the CARS would be eligible for competitive bidding inasmuch as cable television systems do have paying subscribers. Commenters should address the extent to which CARS frequencies are used for internal operations for a cable system, and whether such internal uses dictate treatment similar to that proposed, for example, for the Private Operational Fixed Service frequencies discussed at paras. 30-32, and in Section IV, infra.

31. Congress apparently recognized the existence of such mixed use services, for Section 309(j)(3) speaks in terms of identifying the "principal use" of spectrum.[12] It also speaks in terms of identifying classes of licenses and permits to be issued by competitive bidding.[13] Therefore, we propose to identify classes of licenses and permits to determine "principal use," rather than individual licenses that are potential candidates for competitive bidding. Although, in theory, we could examine individual applications to determine their principal use, this would be virtually unworkable because of the heavy administrative burden such determinations would place on the Commission. We seek comment on our proposal.

32. In order to determine whether competitive bidding may be used, we propose that at least a majority of the use of a Commission regulated service or class of service must be for service to subscribers for compensation rather than for "private service."[14] If the principal use of a service or class of service, either by average users or by the majority of users within a service, is for "private service" (i.e., services without paying subscribers), then that entire service or class of service would be exempted from competitive bidding. Our long experience in regulating these services allows us to draw some tentative conclusions as to the primary use of these service classes. We therefore propose to tentatively classify services, or in a few cases, subsets of services, for their auctionability as discussed below.[15] We request comments that would support or challenge our tentative conclusions as to the nature of these services. Thus, in the above example of the POFS, we would compare the amount of "private service " use made by POFS licensees as a class with the amount of POFS use rendered to eligible subscribers for

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[12] See 47 U.S.C. § 309(j)(3); H.R. Rep. No. 103-111 at 254 (Section 309(j)(2) determination to be made when a service or class of service is defined by Commission).

[13] Id.

[14] We could measure or estimate, based on historical experience, the extent of private or internal use by comparing the amount of information throughput for private or internal purposes, without compensation of any kind, with the amount of information throughput for which compensation of any kind is received by the service or subservice's entire class of licensees. Alternatively, we might measure (or estimate) the amount of time or the amount of spectrum that is devoted to each use. We request comment on the advantages and disadvantages of these alternatives.

[15] As discussed below with respect to General Category channels and channels obtained through intercategory sharing, however, we may determine that the public interest requires that competitive bidding not be used in some circumstances even if services might satisfy that requirement. See Section 309(j)(3). We also recognize that the principal use test may create incentives for applicants to structure their service offerings in order to avoid competitive bidding. We intend to scrutinize any such developments and take steps to deal with such behavior, such as reclassifying services or service categories, if and when it occurs.

compensation.[16] [17]

33. Alternatively, if there is any use, no matter how minimal, in which one or more licensees within a given service or classification of service uses that spectrum for the provision of service to subscribers for compensation, we ask whether that entire service or class of service should be subject to competitive bidding. Such a result could be administratively convenient but could also lead to inequities for certain classes of licensees who may not use any license they would acquire for the provision of service to subscribers for compensation. Police departments and local governments as well as private corporations, such as railroads or investor-owned utility companies using their licenses for purely internal communications purposes, for example, might have to bid against SMRs for spectrum on "contaminated" bands. We seek comment on whether this apparent difficulty might be resolved by exempting only public safety entities from competitive bidding. We also believe that this approach may lead to results that are inconsistent with Congressional intent that a service, to be subject to auctions, must be used "principally" for subscriber services.[18]

III. AUCTION DESIGN

34. In this section we discuss the design of alternative auction methods that promote the objectives specified in Section 309(j)(3) of the Act and the broad goals put forth in the introductory discussion above.[19] As a general matter and consistent with Sections 309(j)(3)(A) and (D), we seek a bidding system that awards licenses to the eligible parties that value them the most within the guidelines set by Congress. Absent market failures, the parties that value licenses the most should generally best serve the public and make rapid and efficient use of the spectrum.[20]

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[16] In our experience, the vast majority of use of the POFS is for private or internal use by the licensee or its affiliates for which no compensation of any kind is paid. We anticipate that the POFS would be excluded from competitive bidding under this analysis and request comment on our tentative conclusion.

[17] In a very few instances, the Commission has granted waivers to permit common carrier use of frequencies regulated by the Private Radio Bureau or vice versa. These waivers are sufficiently rare that we believe they will have no material impact on the classifications we propose. We request comment on our tentative conclusion.

[18] See also the discussion of the General Category channels in Section IV, infra.

[19] This section draws on a framework developed in 1984-85 at the U.S. Department of the Interior for improving the design of Federal coal lease auctions. This framework includes a comprehensive set of auction design criteria and a breakdown of the auction process into basic design elements that can be modified individually. See Donald J. Bieniewicz, DESIGN ELEMENTS OF A BONUS-BID AUCTION, Office of Policy Analysis, U.S. Department of the Interior, presented at the TIMS/ORSA Joint National Meeting, Washington, D.C. (April 26, 1988).

[20] We believe that appropriate safeguards generally can be designed to prevent significant market failures, while awarding licenses to the parties who value them the most. For example, government-provided financing of licenses (through special payment schedules) could mitigate the effects of undue discrimination against small businesses in private capital markets. In some cases, however, eligibility restrictions, i.e., excluding parties who are potentially the highest

If the auction process does not award a license to the party who values it the most, the license ultimately will be resold to that party, assuming transactions costs are low and resale is permitted.[21] But, contrary to Sections 309(j)(3)(A) and (D), the provision of service to the public may be delayed and the public would receive less revenue than if the auction initially awarded the license to the party willing to pay the most.[22]

35. Consistent with the statute, we also seek to implement an auction system that facilitates the efficient aggregation of licenses where appropriate. Combining certain licenses across spectrum and geographic areas will reduce costs and promote the provision of higher valued services. If the auction system does not provide for such aggregation, most of it will occur eventually in the aftermarket. But such aftermarket transactions are likely to be more costly, especially if there are holdouts, and service to the public may be delayed, contrary to the statutory objective. Moreover, a substantial portion of the gain from combining licenses will then be reaped by traders in the aftermarket instead of by the public. In light of the economic opportunity safeguards proposed in this notice and the Commission's existing limitations on total spectrum holdings within a market, we believe that, with appropriate safeguards, our auction process is likely to produce a level of license aggregation that will not compromise the Congressional objectives of promoting economic opportunity and competition.

A. Bidding

36. **Alternative Bidding Methods.** There are four basic auction methods: oral ascending bid (English), sealed bid, descending bid (Dutch) and sealed second-bid (Vickrey).[23] The oral bid and sealed bid are the most common. Combinations of these four methods, such as

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bidders, may be an appropriate safeguard to promote economic efficiency and the statutory objectives in Section 309(j)(3). For example, the Commission may wish to limit the concentration of licenses within each geographic market to prevent abuse of market power. The fact that a monopolist in a market would be willing to pay the most for a second license does not indicate that it would best serve the public. Finally, restrictions may be an appropriate means of addressing the statutory objectives in Section 309(j)(3)(B). Of course, a policy to set aside certain licenses only for some designated group of applicants may exclude the bidders who value the licenses the most.

[21] This has been the experience in licensing cellular service by lottery. The Commission divided the U.S. and territories into 734 cellular service areas and allocated two frequency blocks, block A (non-wireline) and B (wireline, i.e., limited to local telephone companies with a presence in the cellular service area). Comparative hearings were used to select among mutually exclusive applications in the top 30 markets, while lotteries were used in the remaining markets. As of March 1993, 70 percent of all cellular licenses and 85 percent of non-wireline licenses had been the subject of at least one non pro-forma transfer of control. Thus most of the current cellular licensees ended up buying their licenses at market prices.

[22] The delay and loss of revenue is illustrated by the Commission's experience with lotteries, which are unlikely to award licenses to the parties that value them the most. For example, lottery winners of the rural cellular licenses for Columbia County, Wisconsin, sold it for $62.3 million in 1990, 165 days after a construction permit was issued. The public received none of this revenue, except for possible tax payments.

[23] R. Preston McAfee and John McMillan, Auctions and Competitive Bidding, 25 Journal of Economic Literature 699-738 (June 1987).

permitting the submission of sealed bids in oral auctions, are also possible.

37. Under **oral bidding** the asking price is raised until a single bidder remains. The item is awarded to the highest bidder at the bid price. Oral bidding has several advantages. First, oral bidding is likely to assign a license to the party who values it the most. Assuming bidders do not collude, the party with the highest willingness to pay would ultimately outbid all other parties in an oral auction. The price the high bidder would pay would be approximately the value placed on the item by the bidder with the second highest willingness to pay. Second, if licenses are offered individually, aggregation is likely to be easier under oral bidding than sealed bidding. Under oral bidding, a bidder willing to outbid all competitors can be assured of acquiring any group of licenses. A third advantage of oral bidding is that it may have lower private costs than sealed bidding or a Dutch auction because it does not require estimation of the value other bidders place on the item. Finally, oral bidding is likely to be perceived as fair because the process is open, and any eligible and qualified bidder who is willing to pay enough can be assured of winning.

38. A disadvantage of oral bidding is that it may be more subject to manipulation than sealed bidding when there are few bidders. The most serious form of manipulation takes place when parties get together before the auction and agree on who will win.[24] Such collusion reduces the return since the party designated to win could bid well below the value of the item without fearing that it would be outbid. To address this concern, the Commission may wish to propose rules against collusion. (See discussion below.)

39. A variant of the ascending bid oral auction is **electronic bidding** conducted in real-time. Bids would be submitted electronically by telephone or computer terminals and announced within some short time period. Minimum bid increments would be set. Bidding would end at some predetermined time or after some set period of time had lapsed since the last bid. Such a system has been proposed for auctioning Treasury securities.[25] This method could be used to conduct simultaneous ascending bid auctions, which are discussed below.[26]

40. In a **sealed bid auction** the high bidder would be awarded the item and pay the amount bid.[27] Sealed bidding is simple to administer and less subject to manipulation by bidders

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[24] Marc Robinson, Collusion and the Choice of Auction, 16 Rand Journal of Economics 141 (Spring 1985).

[25] Vincent Reinhart, THEORY AND EVIDENCE ON REFORM OF THE TREASURY'S AUCTION PROCEDURE, Federal Reserve Board, Washington, D.C. (March 1992).

[26] Real time ascending bid auctions could also be conducted by other means such as open written bids. This system is commonly used in charity "silent" auctions.

[27] We seek comment on whether bidders should be permitted to submit more than one bid per license. Bidders might have an incentive to do so if, as proposed below, they are not required to include a deposit with each bid. If multiple bids were permitted on the same license and bidders could choose to decline any bid without cost after all bids are opened, the auction would seem equivalent to a sealed second-bid auction. Bidders would submit bids in increments with the highest bid equal to the maximum amount they are willing to pay. The bidder with the highest bids would decline all bids above the maximum amount offered by the next highest bidder. While the outcome might be the same as a sealed second-bid auction this method could generate huge numbers of applications and have the appearance of manipulation. On these

than an oral auction. For example, collusion is less likely under sealed bidding because the colluders run a higher risk of losing the auction to a firm not participating in or reneging on an agreement. A breach of agreement would not be discovered until the bidding was closed. Any retaliation against such a firm would need to either take place outside of the auction process or wait until the next auction.

41. A disadvantage of a standard sealed bid auction is that it may not award the item to the party who values it the most. In sealed bid auctions bidders would shade their bids below the maximum amount they are willing to pay in order to avoid paying more than necessary to win the auction. Generally, a bidder's objective is to make its winning bid only slightly more than the next highest bid. Since in a sealed bid auction, bidders do not know precisely how much other parties will bid, it is possible that the bidder with the highest willingness to pay may not submit the highest bid. Thus it is less likely under sealed bidding than under oral auctions that licenses would be awarded initially to the parties who value them the most.

42. In a **Dutch auction** the auctioneer gradually lowers the price until a bid is offered and the item is awarded at that price. A bidder can make only a single offer not knowing what other bidders are willing to pay and the item is awarded to the highest bidder at the price bid. Thus, in theory the optimal bidding strategy in a Dutch auction is the same as in sealed bid auction.[28] In laboratory bidding experiments, however, Dutch auctions tend to result in lower bids than sealed bid auctions.[29] Finally, as with a sealed bid auction, Dutch auctions may not award an item to the party who values it the most, even when bidding is only for a single item. We see no advantage to Dutch auctions and tentatively conclude that they should not be used under any circumstances.

43. In a **sealed second-bid auction** the high bidder is awarded the item but pays the second highest bid (the highest losing bid). The same concept can be applied to the sales of multiple homogeneous items. In that case the seller chooses the highest set of bids that exhausts the total number of items for sale, but all successful bidders pay the same price -- the highest losing bid. This method has been used on an experimental basis in auctioning U.S. treasury securities.[30]

44. Sealed second-bid auctions combine certain advantages of sealed first-bid and oral auctions. As in oral auctions, second-bid auctions award an item to the party who values it the

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grounds we tentatively conclude that bidders should be permitted only one bid per license. If the Commission determines that under certain circumstances a sealed second-bid auction is appropriate, it would be better to use it directly than introduce it in this way. We note that the limitation would not bar simultaneous bidding on licenses individually and those licenses offered as part of a group.

[28] William Vickrey, 16 Counterspeculation, Auctions, and Competitive Sealed Tenders," Journal of Finance 8 (March 1961). See also Paul Milgrom, Auctions and Bidding: A Primer, 3 Journal of Economic Perspectives 6 (Summer 1989) (hereinafter Milgrom).

[29] See Milgrom at 7.

[30] In September 1992 the Treasury Department began a one-year experiment with single-price auctions. The Washington Post, Section H, page 11 (September 13, 1992).

most.[31] And it is relatively resistant to collusion, as are first-bid sealed auctions. A third advantage is that under standard assumptions, second-bid auctions induce bidders to reveal the maximum amount they are willing to pay.[32] As discussed below, this would be useful when using auctions to determine whether to issue licenses individually or as a package.

45. Nevertheless, second-bid sealed auctions are rarely used. One possible reason for this is that such auctions may reveal a large gap between the amount the winning bidder is willing to pay and what is actually paid.[33] Another difficulty is that bidders may be reluctant to reveal their maximum willingness to pay for fear that this information may subsequently be used to their detriment by competitors, suppliers, unions, or the government.[34] Finally, this approach is generally perceived as being more complex than standard sealed or oral auctions. In light of these difficulties we question whether sealed second-bid auctions should be used in any circumstances but seek comment on this method because of its unique theoretical advantages.

46. **Proposed Bidding Methods.** Given these alternatives, we tentatively conclude that oral bidding should be the Commission's basic auction method and thus recommend its use when the Commission does not explicitly specify some other method. In making this tentative conclusion, we find that the benefits of oral auctions are generally more likely to outweigh the costs of this method as well as the net benefits of the other auction methods considered. Oral bidding is likely to award licenses to the parties that value them the most and facilitate efficient aggregation of licenses when non-homogeneous licenses are offered individually. Moreover, the main disadvantage to oral auctions is the potential for collusion, which we believe can be safely addressed by the measures set forth below.

47. Oral bidding should not, however, be the only auction methodology available to the Commission. New section 309(j)(3) of the Act states that the "Commission shall seek to design and test multiple alternative methodologies under appropriate circumstances." It is our intention to do so. For example, when licenses are offered alternatively as part of a group or

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[31] See Milgrom at 8.

[32] Because in a second-bid auction the price paid is independent of one's bid, the bidder's situation is analogous to asking someone else to buy an item in the store as long as the price is less than some amount. The optimal strategy is to tell the shopping agent the maximum amount you would be willing to pay for the item. If you understated your willingness to pay the agent might return without the item even though the price was less than what you would be willing to pay. If you overstated your willingness to pay the agent might purchase it for more than it was worth to you. Thus the optimal strategy is to tell the truth. See Milgrom, p.8.

[33] In New Zealand, for example, Telecom Cellular bid NZ $7 million for a cellular license but paid only NZ $5,000, the second highest qualifying bid. In an oral auction the amount Telecom paid would likely have been about the same, but the amount that it was willing to pay would not have been revealed. Such disparities between the first and second bid undermined public confidence in the process and led New Zealand to drop sealed second-bid auctions in favor of standard first-bid sealed auctions. See Milton Mueller, Reform of Spectrum Management: Lessons from New Zealand. 13 Policy Insight 20 (Reason Foundation, November 1991).

[34] Michael H. Rothkopf, et al., Why Are Vickrey Auctions Rare? 98 Journal of Political Economy 94-109 (1990).

individually, as we propose below for certain PCS licenses, we tentatively conclude that sealed bids be taken for licenses as part of a group and oral bids taken for individual licenses. Sealed bids would be submitted prior to oral bidding, and would not be opened until the conclusion of the oral bidding. As discussed below, such a system would avoid the problems that may arise if parties bidding on licenses as a group know the results of bidding on licenses individually or vice versa.

48. When multiple homogeneous licenses are offered, we tentatively conclude that the Commission should experiment with sealed (or electronically filed) bidding methods used by the U.S. Treasury to auction securities. We seek comment on whether in this case each bidder should pay the bid price or a single price equal to the highest losing bid. We also seek comment on our tentative conclusions on bidding methods, as well as whether, and under what circumstances, the Commission should use other bidding methods or variants of the methods discussed here.

49. In those cases when the Commission expects very few bidders we propose to use sealed bid auctions. We tentatively conclude that this approach would minimize the risk of bidder collusion.

50. Finally, we request comment on the use of the Small Business Advisory Committee (SBAC) -proposed "innovator's bidding preference."[35] The credit is intended to encourage participation by designated entities, and by strategic small business alliances, by awarding credits equal to 10 percent of an applicant's bid. To the extent the credit is based on technological innovation, we seek comment on whether it is feasible to expeditiously determine eligibility for such credits prior to an auction.

51. **Sequence of Bidding.** In oral auctions, licenses would be offered sequentially. Electronic auctions could be conducted sequentially or simultaneously. Sealed bid auctions could be held either sequentially or parties could be allowed to bid simultaneously on some or all licenses. Under sequential bidding the amount bid in later rounds can reflect what licenses have been acquired in earlier rounds. This is likely to be better than sealed simultaneous independent bidding in facilitating the efficient aggregation of licenses. The main drawback of sequential bidding is the delay if used to award large numbers of licenses, especially by sealed bid.

52. If bidding is done sequentially the order in which items are offered can affect the outcome. We seek to establish the sequence of bidding that is most likely to facilitate economically efficient aggregation of licenses across geographic regions and spectrum blocks while complying with the statute. One approach would be to auction all geographic regions within a spectrum block before proceeding to auction the next spectrum block. This approach is likely to be best when aggregation across geographic areas is more important than aggregation across spectrum blocks. This would be the case when the geographic scope of licenses is small relative to the efficient geographic scale while the bandwidth per license is sufficient to achieve the minimum efficient scale of operation. Another option would be to auction all blocks in a given geographic area before proceeding to auction licenses in the next geographic region. This approach would be best when bandwidth per license is small and geographic scope large such that aggregation of licenses in the same geographic area is likely.

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[35] See FCC Small Business Advisory Committee to the Federal Communications Commission Regarding Gen. Docket 90-314 (September 15, 1993) (SBAC Report) at 14-15 (which has been included in the docket of this proceeding and is available from the Commission on request).

53. When licenses are offered sequentially within a given spectrum block, one option would be to offer the regions in descending order of population. This would enable firms seeking to create regional service areas to acquire the largest market in the region before bidding on smaller surrounding markets. Presumably the value of a small market adjacent to a large market is more dependent (in percentage terms) on whether one also holds the large market than the converse. Thus it would seem more useful to most bidders to know which big markets they had won before bidding on smaller markets. Another option would be to offer licenses by large geographic regions. For example, the Commission might first offer all licenses in the eastern section of the country, and offer licenses within that area in descending order of population. This approach might facilitate aggregation by large geographic regions. If an oral auction is used, the Commission might hold the auctions within the large geographic area that is being licensed.

54. The preferred sequence of offering across spectrum blocks is less clear. One option would be to auction blocks in descending order of bandwidth, e.g., offer 30 MHz licenses before 20 MHz licenses. We seek comment on the circumstances in which alternative sequences of bidding would be most likely to result in an efficient aggregation of licenses and best meet the Commission's other auction design objectives.

55. When bids are taken simultaneously for all items in a sealed bid auction the order in which bids are opened typically does not matter. However, as discussed below, the order does matter when bidders are permitted to place a ceiling on the total amount they wish to spend, or if bidders can withdraw bids when the sealed bids are opened. In these cases the order of opening bids must be specified in advance. If spending limits are adopted or if bids can be withdrawn without penalty, a reasonable option would be to open bids for licenses in descending order of market size as measured by population. We seek comment on this and other options for the order of opening sealed bids.

56. We also seek comment on the advantages and disadvantages of simultaneous ascending bid electronic auctions. Under this approach, multiple licenses would be put up for bid at the same time. Such auctions may facilitate the efficient and rapid aggregation of licenses by providing bidders with simultaneous information about the value of licenses in multiple markets. This technique has not been widely used, however, and may take longer to implement than the other bidding methods. We specifically ask for comment on the feasibility of implementing it in time to meet the statutory deadlines for commencing PCS licensing.

57. **Bidding for Groups of Licenses.** Allowing bids for both individual licenses and groups of licenses ("combinatorial bidding") may reduce the transactions costs in efficiently aggregating licenses.[36] Bidding on individual licenses, even sequentially, does not allow bidders to fully express the interdependence of license values and does not ensure that groups of licenses are assigned to their highest valued use.[37] One way to facilitate efficient aggregation is to allow bidding for groups of licenses that are likely to have more value as a package than individually. For certain spectrum blocks we could accept bids both for licenses individually and for all the

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[36] See Letter of the Honorable John D. Dingell, M.C. to the Honorable James H. Quello, Chairman, Federal Communications Commission (September 21, 1993) (a copy of which has been included in this docket and is available to the public).

[37] For example, with sequential bidding a firm's bid in the early rounds would not be able to reflect whether the firm was able to acquire contiguous licenses in later rounds. John Riley and William Samuelson. Optimal Auctions, American Economic Review 389 (June 1981) (hereinafter "Riley and Samuelson").

individual licenses in the block. Licenses would be awarded as a group if a bid for the licenses as a group exceeded the sum of the highest bids for the licenses individually. If the sum were greater than the highest bid for the group, licenses would be awarded individually. In either case, the same eligibility, performance and other requirements would apply to each individual license.

58. We tentatively conclude that in the initial application of combinatorial bidding the Commission should require submission of sealed bids for groups of licenses and then conduct oral auctions for individual licenses. We believe that this avoids providing an undue information advantage to bidders for a group of licenses. The alternative of first auctioning licenses individually, announcing the results, and then offering licenses in groups would permit bidders for a group of licenses to outbid the announced aggregate bid for single licenses without permitting a counteroffer. This might bias the outcome in favor of group licenses.

59. We also tentatively conclude that bidding for groups of licenses should be by sealed bid and that the bids should not be opened until after completion of oral bidding for individual licenses. If it became apparent that a bid for a group of licenses was likely to exceed the sum of the individual bids, bidding would virtually cease for the remaining individual licenses.

60. A possible refinement to the proposed procedure for implementing combinatorial bidding would be to provide for an additional round of bidding limited to winners of the first round. Winners of the first round would be given an opportunity to increase[38] their bids by submitting a sealed "final and best" offer. Licenses would be awarded as a group if the final bid for the licenses as a group exceeded the sum of the final bids for licenses individually. Winners would pay the prices bid in the final round. Such an additional round of bidding would allow for a counter offer by the parties who won in the first round but were not awarded a license in the first round under the combinatorial bidding rule.

61. We seek comment on the general concept of combinatorial bidding,[39] on our tentative conclusions for implementation and on possible refinements. We also specifically seek comment on the Commission's authority to use this auction method.[40]

62. We also seek comment on the experimental use of sealed second-bid auctions when offering licenses in groups and bidding is not expected to be intense. When few bidders are

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[38] Bidders would not be pemitted to make second round bids that are less than their winning bids in the first round.

[39] In particular, we seek comment on at what point, if any, we should be concerned that aggregation could result in undue market power leading to anticompetitive conduct.

[40] Section 309(j) requires the Commission to prescribe area designation and bandwidth assignments that promote an equitable distribution of licenses and services among geographic areas and prohibits the Commission from making its public interest determination regarding these area designations based on revenue. The House Report explains that this provision is intended to insulate the Commission's communications policy decisions from "budgetary pressures." We do not believe that the proposal described above, which is designed to ensure that spectrum is used for its highest valued use, conflicts with Section 309(j)(7). Moreover, we note that nothing in the Budget Act is intended to be construed to prevent the Commission from issuing nationwide licenses, see Section 309(j)(6)(G), or from considering consumer demand as part of its determinations, see Section 309(j)(7)(C).

expected, bids may be less than the maximum amount parties are willing to pay and both oral auctions and sealed first-bid auctions may create a free rider problem for parties bidding on individual licenses. That is, even though all the tentative winners of individual licenses might benefit if licenses were issued individually, without cooperative action each might refrain from raising his bid in the hope that others would raise their bids enough that the licenses would be issued individually at no additional expense to himself. The free rider problem could be avoided if the Commission used an auction method that induced bidders to reveal the maximum amount they would be willing to pay for individual licenses. The sealed second-bid auction discussed above appears to be the most likely to do this, although it may have other defects. Under this approach a group of licenses would be issued only if the bid for the group of licenses exceeded the sum of the maximum amount bidders were willing to pay for individual licenses. Furthermore, if bidders truthfully bid their maximum willingness to pay, this efficient result would hold whether bids for individual licenses and a group of licenses were tendered sequentially or simultaneously. Finally, we also request comment on the use of combinatorial bidding in simultaneous ascending bid auctions.

63. **Limitations Placed by Bidders on Winnings or Expenditures.** If we allow sealed bids to be submitted simultaneously for a number of individual licenses or groups of licenses, bidders may win more licenses than they want. This could be a problem if we required firms to submit a deposit with each bid and were to keep the deposit of the high bidder even if that party declined to accept the license. One way to avoid this outcome would be to allow bidders to specify spending or other limits (e.g., total population in license areas) if they win more than one license. Permitting firms to specify expenditure or other limits in simultaneous sealed bid auctions would reduce their risk, possibly increasing the number of bids and total auction revenue.

64. Allowing bidders to submit a limitation on total expenditures would be easy to administer and would reduce a bidder's fear that winnings may exceed its financial resources. Under this approach, bidders could submit expenditure limits with their bids, and bids would be opened in a sequence announced before the auction. Any winning bid that would cause a bidder to exceed his expenditure limit would be disregarded and the next highest bid considered. Firms not wishing to set any limitation on total expenditures would not be required to do so.

65. We tentatively conclude that permitting bidders to specify such spending limits would not be necessary under oral bidding, electronic bidding, or sequential sealed bidding for individual licenses because these methods permit bidders to limit their expenditures directly. Furthermore, such spending limits would not be needed even under simultaneous sealed bidding if the Commission permits bids for individual licenses to be withdrawn without penalty. Therefore we propose that the Commission experiment with permitting bidder specified expenditure limits if and only if it uses simultaneous sealed bid auctions in which a winning bidder would forfeit a significant payment if the bid is withdrawn.[41] We seek comment on these tentative conclusions.

66. **Minimum Bid Requirements.** Setting a "reservation" price below which the license will not be awarded could increase the government's expected return by inducing some

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[41] In section E below, we propose to allow sealed bids to be withdrawn without penalty up to the time bids are opened. If this proposal is adopted we see no reason to provide for expenditure limits.

buyers to raise their bids.[42] For example, revenue would be increased in an oral auction if the reservation price were set above the second highest bid but below the maximum amount the winning bidder is willing to pay.

67. The benefits of setting a reservation price are likely to be greatest when there are very few bidders. When competition is intense the benefits of setting a reservation price may not be worth the cost. Setting a refusal price would require estimating the value of the license, which may be difficult and time consuming. Developing and implementing a procedure to use this estimate in calculating the minimum bid could further delay the initial auction date. Moreover, if no bids exceeded the minimum bid, the Commission would need to wait some interval before it could put the license up for bids a second time. Meanwhile, the public would lose the benefits of the services that could be provided with the spectrum. We tentatively conclude that there should be no minimum bid because the public interest benefits of facilitating the rapid provision of new services are clear, while the possible increase in auction revenues is uncertain. However, we seek comment on the possibility of establishing a minimum bid in auctions where the spectrum to be auctioned has an established value in the marketplace.

B. Alternative Payment Methods

68. Section 309(j)(4) requires the Commission to consider alternative payment methods including initial lump sum payments, installment payments and royalties. The administratively simplest option is to require full payment in a lump sum upon issuance of a license. This would leave financing to the private sector and eliminate the need for the Commission to conduct detailed checks of financial qualifications and creditworthiness. We propose to require full payment in a lump sum for all bidders other than the entities designated in the Act as deserving special consideration by the Commission to ensure their economic opportunity.[43]

69. Allowing installment payments is equivalent to the government extending credit to the winner. This would reduce the amount of private financing needed by a prospective licensee, but it burdens the government with the risk of default. For this reason, we propose to limit this option to the entities designated by the Act as groups whose economic opportunity should be ensured and are likely to have difficulty obtaining adequate private financing. We seek comment on alternative installment payment options, including options for payment of interest.

70. A third payment method is a combination of an initial payment and royalties. This system is used by the Department of the Interior for outer continental shelf oil and gas leases. Firms bid on the amount of the initial payment and pay royalties at a fixed rate set by the government. If the FCC is licensing a highly risky service and the government (taxpayers) is better able to bear risk than the firm (shareholders) there may be an advantage to have some part of the payment in the form of a royalty. This benefit must be weighed against several difficulties. First, if the royalties are based on the output or revenues of the winning firm they will act as a tax and tend to reduce output. Second, royalties on FCC licenses may be very costly to administer. Unlike oil and gas royalties there is no easily identifiable output associated with the license. To collect royalties on FCC licenses the agency must establish accounting rules for identifying the share of revenues or profits attributable to such licenses. This is likely to prove extremely intrusive and difficult to implement in practice, especially when a license is used by

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[42] See Riley and Samuelson at 385.

[43] The lump sum payment would be for the balance of the winning bid remaining after payment of the deposit described in section E below.

a firm as part of a highly integrated communications service. Finally, the Commission may have difficulty determining an appropriate royalty rate. We seek comment on these tentative conclusions regarding royalties. We are also interested in comments on ways to improve the effectiveness of royalty payments as a possible solution to the entry cost problems of small bidders.[44]

71. In addition, we request comment on the use of alternative payment methods for the entities designated in the Act for preferential treatment, the kind of method(s) that should be offered, which other applicants should be eligible for alternative payment plans, the interest rate, if any, that should be charged, and what standards the Commission or an outside contractor might use to evaluate an applicant's creditworthiness. Finally, we request comment on how the Commission should treat licensees who default on payments owed the government. For example, should licenses be conditioned on timely payments so that a default would result in immediate license cancellation? Should there be any grace periods or an opportunity for restructuring the payment plan? If the Commission should allow a grace period or restructuring of the payment plan, we intend to follow our procedures (including the payment of interest) under the Commission's existing debt collection rules and procedures. See 47 C.F.R. § 1.1901, et. seq. We also request specific comment on the SBAC's distress sale proposal. The proposal would encourage transfers to designated entities where winning bidders are unable to pay.[45] We request comment on the most efficient administrative mechanisms for implementing these payment options.

C. Treatment of Designated Entities.

72. The new subsection 4(D) of Section 309(j) directs the Commission to ensure that small businesses, rural telcos, and businesses owned by women and minorities are "given the opportunity to participate" in the provision of spectrum-based services. Congress's objective was apparently to promote economic opportunity for the entities enumerated in the statute.[46]

73. Before addressing specific proposals, it is appropriate to address at the outset the legal issues raised by these proposals. To implement this provision, we are considering a variety of measures including tax certificates, set-asides (i.e., certain designated spectrum blocks to be awarded in auctions open only to applicants that fall under one of the definitions for the eligible entities), bidding preferences, preferential payment terms such as delayed or extended installment payments to qualifying bidders, or other procedures. We note that any benign race or gender-conscious measures mandated by Congress - even those not "remedial" in the sense of being designed to compensate victims of past governmental or societal discrimination - are constitutionally permissible to the extent that they serve important governmental objectives within the power of Congress and are substantially related to the achievement of those objectives. Metro Broadcasting, Inc. v. FCC, 497 U.S. 547, 560-563 (1990); see also Richmond v. J.A. Croson Co., 488 U.S. 469 (1989); Fullilove v. Klutznick, 448 U.S. 448 (1980); Lamprecht v. FCC, 958 F.2d 382 (D.C. Cir. 1992). In addition, recent case law suggests that any race or gender-conscious preferential measures taken by the government must be supported by a convincing and comprehensive record that demonstrates that the government's methods are substantially related to the goal it hopes to achieve. Metro Broadcasting, Inc. v. FCC, 497 U.S. at 560-563;

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[44] SBAC Report at 15.

[45] SBAC Report at 16.

[46] See Conf. Report at 482-484; see also H.R. Rep. No. 103-111 at 255.

Lamprecht v. FCC, 958 F.2d at 399-408.[47] Therefore, because of the special constitutional concerns associated with preferential measures aimed towards minorities and women, it would appear that such race-or gender-conscious measures adopted in this proceeding would have to be supported by a record which demonstrates that such preferences are substantially related to the objectives of the Budget Act.[48] With this in mind, we request specific comment on how we might satisfy concerns expressed in the relevant case law while fulfilling the statutory provisions relating to businesses owned by members of minority groups and women. Measures adopted for the other enumerated entities, rural telcos and small businesses, could be reviewed under a more deferential judicial standard. FCC v. Beach Communications, Inc., 61 U.S.L.W. 45323 (U.S. June 1, 1993).

74. Because case law in this area has a bearing on our legal authority, commenters should address whether we could satisfy the congressional objective simply by affording preferences to small businesses and other small entities, and through this means promote

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[47] The House Report states that "unlike mass media licenses, where diversity of ownership contributes to diversity of viewpoints, most of the licenses issued pursuant to Section 309(j) will be services where the race or gender of the licensee will not affect the delivery of the service to the public." H.R. Rep. No. 103-111 at 255. We note, for example, that PCS licensees will probably not engage in services that involve the exercise of editorial control. PCS licenses, however, could be used to transmit electronic publications to multiple viewers. We seek comment on whether any of the services subject to competitive bidding possess the characteristics that warrant consideration of diversity factors as a matter of the public interest.

[48] The Act's legislative history concerning the subject provision, Section 309(j)(4)(D), provides little guidance regarding the relationship between the preferential measures and the goal Congress hopes to achieve. See Conf. Report at 484. The text of the provision also does not appear to provide a specific finding in support of race- and gender-conscious measures. We note, however, that a similar provision, Section 309(j)(4)C)(ii), refers to the Commission's obligation to ensure "economic opportunity for a wide variety of applicants, including ... businesses owned by members of minority groups and women." The legislative history of this provision, like the text, indicates that Congress' principal objective was to ensure economic opportunity for such groups. See Conf. Rep. at 484; H. Rep. No. 103-111 at 255. See also Section 309(j)(3)(B)(statutory objective to promote economic opportunity and new and innovative technologies). In this regard, moreover, the Supreme Court has noted that

> [l]imiting our analysis to the immediate legislative history ... 'would erect an artificial barrier to [a] full understanding of the legislative process.' Fullilove v. Klutznick, 448 U.S. at 502 (Powell, J., concurring). The 'special attribute [of Congress] as a legislative body lies in its broader mission to investigate and consider all facts and opinions that may be relevant to the resolution of an issue. One appropriate source is the information and expertise that Congress acquires in the consideration and enactment of earlier legislation. After Congress has legislated repeatedly in an area of national concern, its Members gain experience that may reduce the need for fresh hearings or prolonged debate when Congress again considers action in that area.'

Metro Broadcasting, Inc. v. FCC 497 U.S. 547, 568 (1990) (quoting Fullilove v. Klutznick, 448 U.S. at 502-503, and also citing, at 478 (opinion of Burger, C.J.)("Congress, of course, may legislate without compiling the kind of 'record' appropriate with respect to judicial or administrative proceedings"). With this in mind, commenters may wish to address other relevant legislative actions concerning, for example, ownership diversity in the communications industry or discriminatory financial lending practices generally.

economic opportunity by ensuring that women and minorities are afforded an opportunity to participate. Alternatively, if commenters believe we should go further and provide preferences specifically tied to an applicant's minority or gender status, regardless of economic circumstances, these commenters should discuss how the standard of judicial review for such preferences can be satisfied. For example, commenters may wish to address whether evidence of discrimination against these groups within the context of radio licensing or financial lending practices is required, and if so, what type. If such evidence is required, commenters should point to the source of that evidence, for example, in the record of congressional proceedings or elsewhere. Alternatively, commenters should provide evidence of the degree to which these groups are underrepresented in the ownership of non-broadcast licenses. In this regard, commenters should address the findings contained in the SBAC Report, discussed below, para. 80.

75. While the statute lists all of the enumerated groups together, it does not indicate that each group must be afforded the same type of treatment. Thus, we tentatively concur with the SBAC Report that different approaches may be appropriate to address the specific concerns applicable to each enumerated entity. For example, the Commission could propose deferred payment terms for small businesses and tax certificates for businesses owned by women and minorities.[49] Notably, as discussed above, preferences afforded to businesses owned by women and members of minority groups could apply regardless of whether such businesses are small businesses. In addition, measures such as set-asides may be better suited for some specific services than others.[50]

76. We request comment on the types of mechanisms the Commission might employ to promote the objectives of Section 309(j)(4)(D). As indicated above, we are particularly interested in comments that discuss ways in which the Commission might craft a scheme of preferences that would both fulfill the objectives of the statute and comport with the relevant case law precedent.

Eligibility Criteria

77. In order to administer such measures, we would have to establish criteria for the enumerated entities. In the case of small business, we seek comment on whether we should rely on the definition devised by the Small Business Administration.[51] For businesses owned by

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[49] There is nothing that would appear to prevent a small business that was engaged in the provision of cable television service from being considered a small business within the meaning of the statute.

[50] See, e.g., the Cellular Radio Service and IVDS, 47 C.F.R. Parts 22 and 95, respectively, where only two licensees serve a particular market.

[51] See SBAC Report at 20-21. According to the Report, the SBA administers a variable standard for determining whether an entity is small for SBIC financial assistance purposes. The standard permits an applicant to qualify based on a net worth not in excess of $6.0 million with average net income after Federal income taxes for the two preceding years not in excess of $2.0 million. Alternatively, an applicant can qualify by showing that together with affiliates, and excluding affiliates, it meets the size standard for the industry in which it is primarily engaged as set forth in 13 C.F.R. § 121.601. See also 13 C.F.R. § 121.802(a)(2). The SBAC Report, however, also questions whether the existing net worth/income size standard is too low for telecommunications industries, such as PCS, that may be capital intensive.

women and minorities[52] and rural telcos,[53] we propose to rely on existing Commission rules and policies. Thus, for purposes of this proceeding, we propose that rural telephone companies be defined as those carriers that are eligible for the exemption from the telephone company-cable television cross-ownership restrictions under Section 63.58 of our Rules.[54] We also seek comment about the scope of any specific treatment that might be afforded rural telephone companies. For example, should rural telcos be afforded preferential measures only where the license covers a market area or reliable service area that also encompasses all or some significant portion of their franchised service area? Or should there be no geographic restriction on the rural telephone company preference so that any rural telephone company can obtain a preference in any market licensed by the Commission? Should the fact that some rural telephone companies receive favorable financing from the Rural Electrification Administration have any bearing on the preferences rural telephone companies might receive? Regarding businesses owned by women and minorities, we seek comment on whether to qualify for preferential measures, women and minority backed applicants should be 50.1% owned by these groups or whether simple control is enough to qualify regardless of the percentage of the equity held.[55] In this regard, commenters should address how the Commission can deter potential abuses where less than 50.1% ownership and control is involved.

78. We also specifically request comment on how the Commission could ensure that any policies we might adopt to aid those groups that Congress was particularly concerned about did in fact aid those groups and not others who might merely use a member of one of those groups for the purpose of achieving special treatment by the Commission. In addition, we ask how we should apply such eligibility criteria to consortia, that is, whether such consortia must be wholly or predominantly comprised of the eligible entities in order to qualify for a preferential measure.

Specific Proposals

79. Because we are required to prescribe regulations to implement Section 309(j) within 210 days of the enactment of the Budget Act, we include the following specific proposals

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[52] The Commission has defined term "minority" to include "those of Black, Hispanic Surnamed, American Eskimo, Aleut, American Indian and Asiatic American extraction." See Statement of Policy on Minority Ownership of Broadcasting Facilities, 68 F.C.C.2d 979, 980, n. 8 (1978); Commission Policy Regarding the Advancement of Minority Ownership in Broadcasting, 92 F.C.C. 2d 849, 489, n. 1 (1982), citing 47 U.S.C. § 309(i)(3)(C) (1982 ed.). In the past, the Commission has included women among its groups eligible for certain preferential measures. Gainesville Media, Inc., 70 F.C.C.2d 143, 149 (Rev. 2d. 1978). But see Lamprecht v. FCC, supra. See also 47 C.F.R. § 1.1621(b).

[53] See, e.g., 47 C.F.R.§ 63.58 (concerning rural telcos).

[54] The Commission has pending a request to modify the definition of rural telephone companies to those serving markets of 10,000 or less. The Organization for the Protection and Advancement of Small Telephone Companies (OPASTCO) also has indicated a preference for this definition in the context of PCS. See Ex Parte presentation of OPASTCO in the PCS Proceedings, GEN Docket 90-314 (September 15, 1993), supra, note 1.

[55] See 47 C.F.R. §§ 1.1621(c), 1.1622.