Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Competitive Bidding Procedures for Auction 96	)	AU Docket No. 13-178
	)	

REPLY COMMENTS OF UNITED STATES CELLULAR CORPORATION

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United States Cellular Corporation ("USCC") submits these reply comments in response to the Public Notice released July 15, 2013 in the above-captioned proceeding and the comments filed in response to the Public Notice.[1] In its initial comments, USCC explained that the unique characteristics of the 1915-1920 MHz and 1995-2000 MHz bands (collectively, the "H Block") make this spectrum particularly well-suited to promote much-needed competition in the wireless industry and spur network deployments in underserved areas in the near-term. USCC cautioned, however, that ill-advised bidding procedures could frustrate, or even destroy, this potential by making it overly difficult, if not impossible, for smaller bidders to acquire licenses in Auction 96. Accordingly, USCC joined a majority of commenters in this proceeding in strongly urging the Wireless Telecommunications Bureau (the "Bureau") to prohibit the use of package bidding in Auction 96. USCC also strongly urged the Bureau not to implement anonymous bidding procedures for Auction 96.

I. INTRODUCTION AND SUMMARY

Like USCC, other commenters described how the H Block's unique characteristics make it particularly well-suited for near-term deployment. For instance, Sprint noted that, because

[1] *See Auction of H Block Licenses in the 1915-1920 MHz and 1995-2000 MHz Bands; Comment Sought on Competitive Bidding Procedures for Auction 96*, Public Notice, DA 13-1157 (May 17, 2013) ("Notice"). Unless otherwise noted, comments cited herein are those filed on August 5, 2013 in AU Docket No. 13-178 in response to the Notice.

"the H Block is cleared spectrum and thus free from incumbents," there are "no external obstacles to ensuring quick deployment of new mobile broadband services."[2] In addition, RDL Management, LLC explained how the "H Block is a valuable source of needed spectrum for Competitive Carriers because it is adjacent to existing [PCS] spectrum which has already been developed."[3]

Commenters also recognized that, as a result of these characteristics of the H Block, Auction 96 has the potential to promote competition and spur network deployments in rural and other underserved areas. For instance, Cellular South noted that, "[w]ith Auction 96, the Commission has the opportunity to address further wireless industry consolidation while generating new opportunities for competitive operators and new entrants to spur greater innovation and access to wireless services."[4] Similarly, Council Tree Investors, Inc. "urge[d] the Commission to use the opportunity the auction presents to begin to address in an effective manner the dramatic reduction of small and minority-owned business and new entrant participation in the wireless industry."[5]

Commenters stressed, however, that the potential for Auction 96 to advance these public interest benefits depends in large part on the bidding procedures adopted by the Bureau. For instance, Sprint explained how "[s]electing the optimal auction design is the first step to ensuring a successful auction that meets the goals of the Spectrum Act."[6] Similarly, Cellular South noted that, "[i]n the context of today's highly consolidated wireless industry, it is critical that the

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[2] Comments of Sprint Corporation at 6.

[3] Comments of RDL Management, LLC ("RDL") at 2.

[4] Comments of Cellular South, Inc. at 1-2; *see* Comments of Sprint at i (noting that the H Block "is ready for the rapid deployment of new, innovative broadband services that will foster competition, consumer choice, innovation, and new jobs in America.").

[5] Comments of Council Tree Investors, Inc. at i.

[6] Comments of Sprint at i.

Commission adopt auction structures that will promote competition, rather than further consolidation."[7] And RDL emphasized that "it is critical that the Bureau get the auction procedures right for the H Block to ensure that Competitive Carriers are able to fully participate in Auction 96 and have a fair chance to acquire additional spectrum."[8]

In these reply comments, USCC again expresses its deep concern that some of the Bureau's proposed bidding procedures would thwart the potential of Auction 96, as well as conflict with the record so far in this proceeding, because these proposals would uniquely disadvantage smaller bidders, and thereby substantially reduce their likelihood of successful participation in the auction. As a result, Auction 96 would fail to promote much-needed competition in the wireless industry, reduce the likelihood that H Block spectrum will be used to provide service to rural and other underserved areas, and decrease funding to our nation's first responders by failing to maximize auction revenue. USCC's focus remains primarily on two bidding procedures which, if structured as proposed by the Bureau, would greatly reduce the likelihood that smaller bidders will succeed in Auction 96.

First, USCC joins the majority of commenters in strongly urging the Bureau to conduct Auction 96 using a standard simultaneous multiple-round ("SMR") auction format, and decline to adopt any form of package bidding, including hierarchical package bidding ("HPB"). The complexity, risk and uncertainty related to package bidding would deter auction participation by smaller bidders. Moreover, even if smaller bidders nevertheless participate in Auction 96, it would be extremely unlikely that these bidders actually acquire any H Block licenses because

[7] Comments of Cellular South at 5; *see* Comments of the Rural Telecommunications Group, Inc. ("RTG") at 6 ("RTG urges the Commission to revisit its obligations under Section 309(j) to ensure that its auction rules provide the competitive safeguards required by the Act.").

[8] Comments of RDL at 2.

package bidding permits large bidders to tie-up multiple licenses in large package bids, while potentially acquiring some of these licenses at a discount.

Package bidding also creates substantial exposure risks for smaller bidders because of its potential to reactivate dormant bids, further skewing an auction in favor of package bids. This potential for a bid placed on an individual license to become provisionally winning many rounds later can place a bidder between the proverbial "rock and a hard place," forcing it to either cease auction participation, and thereby forfeit the opportunity to acquire an H Block license, or risk being financially liable for an unwanted license as a result of a completely unpredictable series of events wholly outside of the bidder's control. The consequences are reduced auction participation and a further bias in favor of package bids.

USCC also explains why the Bureau's HPB proposal would not adequately remedy the public interest harms caused by package bidding. HPB would fail to fully address package bidding's inherent complexity, while its predefined packages of licenses could in fact make it even more difficult for smaller bidders to acquire individual licenses. For these reasons, package bidding would decrease auction participation by everyone but the largest carriers, which would decrease auction revenue and raise legal issues as to whether Auction 96 complied with the Commission's statutory obligations. At the same time, package bidding is unnecessary because adequate spectrum aggregation opportunities are available under the Commission's standard auction procedures.

Second, USCC again urges the Bureau not to adopt anonymous, or "blind," bidding procedures because, absent sufficient information regarding other auction participants, bidders cannot make accurate license valuation decisions, which could withhold H Block licenses from those who truly value them the most, and who would put this spectrum to its highest and best use. Blind bidding particularly disadvantages smaller bidders, who lack the resources necessary

to independently discover bidder information, and whose license valuations are based in large on certain technical considerations, such as the availability of interoperable devices, that require knowledge of likely other licensees.

Blind bidding procedures uniquely harm smaller bidders in other ways as well. These procedures reduce the likelihood of obtaining outside financing, which smaller bidders often require to participate in auctions and deploy networks. Smaller bidders also face greater legal risks because of the inherent conflict between blind bidding and the public disclosure requirements of the Securities and Exchange Commission ("SEC"). For these reasons, blind bidding would cause participation in Auction 96 to be less robust, making it more likely that the licenses will sell at depressed prices and auction revenue will decrease. Moreover, while blind bidding gives rise to substantial public interest harms, it is unclear whether withholding bidder information provides any real benefits or otherwise is necessary.

II. THE BUREAU SHOULD ADOPT A STANDARD SMR AUCTION FORMAT WITHOUT ANY FORM OF PACKAGE BIDDING

In its comments, USCC expressed its strong opposition to the use of any form of package bidding in Auction 96, including the Bureau's proposed HPB methodology. As Sprint noted, "introducing HPB into the equation creates uncertainty, increases participation costs, and risks inefficiently awarding licenses,"[9] and therefore "will inherently advantage some and disadvantage others."[10] Specifically, as detailed below, package bidding primarily harms smaller bidders, while benefitting only large bidders. As such, if the Bureau permits package bidding in Auction 96, "[s]mall businesses would be effectively excluded from participating."[11]

[9] Comments of Sprint at 12.

[10] *Id.* at 5, n. 17.

[11] Comments of RTG at 4.

On the other hand, Sprint explained that "an SMR design without package bidding strikes a balance among the goals of flexibility, transparency, complexity, and revenue generation, all towards the broader goal of serving the public interest."[12] In addition, while package bidding has only been used in a single prior auction, and only for a fraction of the licenses being offered, the "traditional SMR format is tested and proven successful."[13] The use of package bidding also would frustrate the Commission's intent when it licensed the H Block on an EA basis,[14] as well as conflict with the substantial public support for H Block license areas no larger than EAs.[15]

A. Package Bidding Would Add Unnecessary Complexity to Auction 96.

Various commenters joined USCC in recognizing the significant complexity package bidding adds to an auction,[16] and that this added complexity particularly disadvantages smaller bidders. For instance, RDL noted that, "[b]ecause this complication would be pushed on to the Competitive Carriers who are less likely to have the resources to evaluate and undertake such a complex auction, it is unlikely that they would be successful."[17] Similarly, Sprint explained how the additional bid options created by package bidding raise the cost for "each player to evaluate

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[12] Comments of Sprint at 12.

[13] *Id.*

[14] *See id.* at 6 ("[T]he Commission noted in the H Block Report and Order that adopting similar procedures for adjacent bands 'may encourage rapid deployment in and use of the spectrum.'") (quoting *Service Rules for the Advanced Wireless Services H Block – Implementing Section 6401 of the Middle Class Tax Relief and Job Creation Act of 2012 Related to the 1915-1920 MHz and 1995-200 MHz Bands*, Report and Order, 28 FCC Rcd 9483, 9500 (2013) ("*H Block R&O*") (finding it "particularly significant that the two bands adjacent to the H Block, PCS G Block and AWS-4, are licensed on an EA basis")); *H Block R&O*, 28 FCC Rcd at 9500 (EA-based licensing "will facilitate access by smaller carriers because EAs are small enough to provide spectrum access opportunities to such carriers."); *id.* ("[L]icensing the H Block on an EA basis will help [] to meet several statutory goals, including providing for the efficient use of spectrum; encouraging deployment of wireless broadband services to consumers; and promoting investment in and rapid deployment of new technologies and services.") (internal citations omitted).

[15] *See* Comments of RDL at 13 ("When AT&T, the Competitive Carrier Association (CCA), C.Spire, MetroPCS, Sprint, T-Mobile, Rural Telecommunications Group (RTG) and US Cellular all agree that the license area should not be larger than EA, the Bureau must take notice.").

[16] Empirical studies have come to the same conclusion. *See, e.g.*, McDuff, DeForest, *Analyzing Package Bidding in the FCC Auction No. 31: Upper 700 MHz Band*, p. 8 (2003) ("*McDuff Study*") ("Another issue raised by introducing package bidding is increased complexity.").

[17] Comments of RDL at 7-8; *see* Comments of Cellular South at 3 ("[P]ackage bidding … adds an unnecessary layer of complexity that disadvantages competitive operators.").

its options and probability of success," which "may limit overall auction participation, including the participation of smaller carriers."[18] The fact that package bidding substantially increases the length of an auction[19] also adds unnecessary expense because "[a]uctions that take a long time to close impose a heavy transaction cost upon participants and the FCC."[20]

Moreover, the Bureau's proposal to allow currently "losing" bids to become provisionally winning during later rounds, which Cellular South described as "inordinately complex,"[21] would compound these issues. RDL explained how, under this proposal, "[n]ot only do bidders have to manage eligibility when bidding on licenses which may be subject to a combinatorial bid, but also have to worry about being stranded with non-provisionally winning bids which might mature to actual winning bids."[22] The result, as Cellular South recognized, is that it would be "difficult, if not impossible, for bidders to know whether and when their previous rounds' bids might be re-activated in later rounds."[23] This difficulty would only increase during the course of the auction as the number of past bids that could potentially again become active increases. Not only do the limited resources of smaller bidders make it more difficult for them to address this complexity, but smaller bidders are those most likely to face this situation, which arises only with respect to bids on individual licenses.

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[18] Comments of Sprint at 7-8; *see McDuff Study* at 9 ("It is costly for bidders to evaluate such large numbers of package bids. … This may limit entry to the auction and give an advantage to large bidders.").

[19] *See* Cybernomics, Inc., *An Experimental Comparison of the Simultaneous Multi Round Auction and the CRA Combinatorial Auction*, Report to the FCC, p. 19 (2000) ("*Cybernomics Study*") ("The Combination auction takes over 3 times as long as the SMR to finish.").

[20] *Id.* at 13; *see McDuff Study* at 9 ("Experimental results have also shown that allowing package bidding may make the auctions longer and thus more costly for the bidders.").

[21] Comments of Cellular South at 3; *see* Comments of RDL at 7 ("[T]he interaction of the bidder eligibility and combinatorial bidding rules adds layers of complexity to the bidding.").

[22] Comments of RDL at 7.

[23] Comments of Cellular South at 3.

Commenters also agreed with USCC that the Bureau's HPB proposal would fail to adequately remedy the inherent complexity of package bidding procedures.[24] For instance, Sprint observed that, "[e]ven in the proposed non-overlapping HPB format, a limited set of predetermined packages would increase the number of possible bids in any given round."[25] As a result, while the number of bid options may be reduced somewhat under the Bureau's HPB proposal, it nevertheless "would make the auction more complex and would tilt the playing field in favor of larger, incumbent wireless carriers to the detriment of Competitive Carriers."[26]

B. Package Bidding Would Put Smaller Bidders at a Significant Disadvantage.

A majority of commenters joined USCC in stressing that the harms package bidding imposes upon smaller bidders, and the benefits it affords large bidders, could virtually eliminate the opportunity for smaller bidders to acquire licenses in Auction 96.[27] As RTG noted, the result would be that "the H Block spectrum will end up concentrated in the hands of one or a few large carriers."[28]

For instance, package bidding greatly increases the likelihood that large bidders will tie-up multiple licenses in large package bids. Not only do smaller bidders lack the resources necessary to directly compete for a large package of licenses,[29] they typically have targeted auction strategies, focusing on one or a small number of individual licenses. Smaller bidders, therefore, generally have neither the ability nor desire to compete for a package of licenses. In

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[24] *See, e.g.*, Comments of Sprint at 7 ("The multi-level HPB overlay would create unnecessary complexity and increase uncertainty…").

[25] *Id.*

[26] Comments of RDL at 4; *see* Comments of Sprint at 7 ("Adopting the HPB overlay would increase participation costs because the number of possible combinations of licenses/packages – and therefore bidding options – would necessarily exceed the actual number of licenses.")

[27] *See McDuff Study* at 12 ("The major disadvantage of introducing package bidding is auctions with package bidding favor larger bidders relative to the standard ascending auction.").

[28] Comments of RTG at 5-6.

[29] *See id.* at 6 ("Small and rural carriers effectively cannot compete against large deep-pocket companies seeking regional or nationwide licenses…").

contrast, "[l]arger and nationwide carriers [] will be inclined to seek large, regional licenses or even a nationwide license if available…"[30] Not only do these carriers have the resources to bid on large packages, the inclusion of package bidding in an auction in fact motivates them to do so because package bidding "creates an incentive for strategic bidding on large packages."[31] As a result of this significant disparity between the resources, needs and motivations of small and large bidders, package bidding can drastically skew an auction in favor of large bidders.[32]

Moreover, as Cellular South noted, package bidding "substantially increases the risk that smaller operators and new entrants who may place a higher valuation on a given individual license will be shut out."[33] Because the individual licenses desired by smaller bidders typically do not include the most densely-populated markets, the collective total of their bids may not even include the most expensive license(s) in that package. Consequently, it would be highly unlikely that the aggregate bids for individual licenses would exceed package bids, which would invariably encompass those license areas.[34] In other words, even if a smaller bidder assigns a higher value to a particular license, this valuation can be completely undercut by a national carrier able to include that license within a large package bid that includes urban areas.[35]

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[30] *Id.* at 5.

[31] *McDuff Study* at 12; *see id.* at 12-13 (noting that it "would not be surprising to see the FCC Auction 31 result in one or two bidders winning all of the licenses" because the "incentive for bidding on the nationwide package is large, and difficult to overcome by smaller bidders.").

[32] *See* Comments of Broadband Properties Corp. at 1 ("Use of the HPB method [] gives an enormous advantage to larger, more highly capitalized bidders to outbid smaller bidders who would probably be bidding on smaller geographic areas…"); Comments of RDL at 21 ("[S]ince it is more likely that Competitive Carriers will be bidding on individual licenses, the playing field is tilted in favor of the combinatorial bidder – who is most likely going to be the larger incumbent licensees.").

[33] Comments of Cellular South at 3; *see* Comments of Broadband Properties at 1 ("[I]t is very easy for a scenario to arise where the smaller operator outbids the larger operator but cannot win its license because the HPB process included that … license with a larger grouping.").

[34] *See* Comments of RDL at 6 ("Combinatorial bidding favors bidders for urban areas over rural areas…");

[35] *See* Comments of RTG at 5 ("Larger and nationwide carriers … can afford to spread their auction costs across groupings of high- and low-cost EAs.").

On the other hand, because large bidders' focus would remain on the densely-populated license areas in the absence of package bidding, they would compete against each other for these individual license areas rather than for packages encompassing these areas. Due to this continuing competition amongst the large bidders, the licenses likely would sell for approximately the same amount as the valuations these bidders would have assigned to the licenses in developing their package bid amounts. At the same time, because the absence of package bidding would provide smaller carriers with a reasonable opportunity to acquire licenses for less densely-populated areas, their increased auction activity likely would cause their bids to exceed the values large bidders would have assigned to these markets as part of a package bid. In other words, package bidding could unjustly enrich large bidders in violation of Section 309(j) of the Communications Act by allowing them to acquire H Block licenses at a discount.[36]

Package bidding also gives rise to the "threshold problem,"[37] which increases the likelihood that large package bidders not only will monopolize an auction, but also acquire some licenses at a discount. The threshold problem arises because bidders for individual licenses, who are prohibited from communicating with each other, tend to be restrained in their bidding in the hope that bidders for other licenses included in the package will sufficiently increase their bids so that the collective total defeats the large carriers' package bids.[38] As noted by Sprint, a result of this restrained bidding is that "the aggregate individual bids will likely not beat out the package…"[39] Another possible result is that winning package bidders may pay less for certain

[36] *See* 47 U.S.C. §309(j)(3)(C) (FCC must avoid "unjust enrichment through the methods employed").

[37] *See McDuff Study* at 8 ("While package bidding reduces the exposure problem, it raises a new issue called the threshold problem."); Comments of RDL at 4 ("Combinatorial bidding creates a 'threshold problem,' which occurs when small bidders cannot raise their bids enough to beat out a large bidder, even though the aggregate value of the small bidders may be greater than the large bidder's value.")

[38] *See Auction of Regional Narrowband PCS Licenses Scheduled for September 24, 2003*, Public Notice, DA 03-1065, p. 4 (Apr. 3, 2003).

[39] Comments of Sprint at 9.

licenses than if they had competed with smaller bidders on a license-by-license basis.[40] This potential to acquire licenses at a discount further encourages large bidders to focus on large packages, which increases the likelihood that smaller bidders will always be competing with package bids, and thus further decreases smaller bidders' likelihood of auction success.[41] For these reasons, empirical studies have found that the "threshold problem tends to favor large bidders bidding on large packages."[42]

The threshold problem created by package bidding, and the disadvantages it causes to smaller bidders, has been accepted for years. In fact, a report submitted to the Commission more than 15 years ago specifically noted that "[t]he determinate biases in the [package bidding] design … suggest that it could be improved by altering the pricing rule to reduce the biases."[43] For example, the authors suggested that the Commission adopt rules "which specify that winning bids for individual licenses receive a discount."[44] In doing so, they explained that, "because [package] bidders can always bid for individual licenses, bidders who wish to acquire large packages [would be] no worse off in this auction than in the FCC's standard auction, regardless of the discount allowed."[45] As a result, there would be "little risk to experimenting with moderate discounts, say in the range of 10%-30%."[46] Unfortunately, despite this long-standing

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[40] *See* Comments of RDL at 4 (noting that, because of the threshold problem, package bidding "may allow larger bidders to acquire certain licenses at a discount."); *see McDuff Study* at 12 ("Smaller bidders will find it difficult to outbid large package bids due to the threshold problem.").

[41] *See McDuff Study* at 12 ("Due to the threshold problem, bidders will be more likely to bid on nationwide and global packages since they may be able to pay below market prices for them.").

[42] *Id.* at 8.

[43] Charles River Associates Incorporated and Market Design, Inc., *Report 1B: Package Bidding for Spectrum Licenses*, CRA No. 1351-00, p. 21 (Oct. 1997).

[44] *Id.*

[45] *Id.*

[46] *Id.*

recommendation, the Bureau's HPB proposal offers no compensation at all, or any other potentially mitigating procedure, to those exposed to the threshold problem.

Due to these widely-acknowledged harms package bidding imposes upon smaller bidders, USCC seriously questions AT&T's unsupported claim that package bidding "would be a fair and efficient way to accommodate bidders of all sizes."[47] In fact, auction history clearly demonstrates the opposite. Specifically, as RDL noted, in Auction 73, which was the only auction that has involved any form of package bidding, "Verizon acquired a near-nationwide paired 22 MHz Upper 700 MHz C Block license."[48] Notably, the C Block was the only spectrum offered in Auction 73 that was subject to package bidding, and it also was the only spectrum block for which smaller bidders were completely shut out. USCC agrees with RDL that this outcome of Auction 73, which was made possible by package bidding, "provides a cautionary tale that should be studied by the Bureau" prior to implementing similar bidding procedures for Auction 96.[49]

USCC also agrees with RTG that, if the Bureau permits package bidding in Auction 96, "[u]ltimately, it is rural consumers that will be harmed."[50] As detailed above, package bidding would make it far less likely that H Block licenses will be awarded to small and regional carriers who, in contrast to the nationwide carriers, typically concentrate their build-out efforts in rural and other underserved areas.[51] By withholding the likely benefits of the H Block from those living in these areas, the use of package bidding in Auction 96 "would have a negative effect on

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[47] Comments of AT&T, Inc. at 2.

[48] Comments of RDL at 5.

[49] *Id.* at 4.

[50] Comments of RTG at 6.

[51] *See id.* ("Few licenses, or possibly none, will be disseminated among the small businesses and rural telephone companies that actually serve rural areas.").

the Commission's policy to try and move broadband out to rural areas."[52] Consequently, for this reason as well, the Bureau must not permit any form of package bidding in Auction 96.[53] Finally, USCC notes that the likely exclusion of most, if not all, smaller bidders from Auction 96, along with the attendant high concentration of H Block licenses amongst the few nationwide carriers[54] and the decreased likelihood that this spectrum will be used to serve rural and other underserved areas,[55] would violate the Commission's statutory requirements under Section 309(j) of the Communications Act.[56]

C. The Interaction of Package Bidding and Bidding Eligibility Rules Creates Significant Exposure Risks for Smaller Bidders, Further Skewing an Auction in Favor of Package Bids.

USCC again notes the unfortunate irony that, in attempting to deal with the possibility of "exposure" problems for large bidders, the Bureau's HPB proposal would create substantial exposure risks for bidders seeking only individual licenses. These risks arise because the auction system would consider bids made in previous rounds when determining provisionally winning bids, which can cause a dormant bid for an individual license to become provisionally winning many rounds later.[57] As detailed below, these risks are most likely to be faced by, and are likely to be most harmful to, smaller bidders with limited bidding eligibility and financial resources.

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[52] Comments of RDL at 6.

[53] *See* Comments of RTG at 2 ("Because of the harm that would befall rural consumers, the Bureau should refrain from adopting package bidding in Auction 96.").

[54] *See* 47 U.S.C. §309(j)(3)(B) (FCC must "promot[e] economic opportunity and competition … by avoiding excessive concentration of licenses and by disseminating licenses among a wide variety of applicants").

[55] *See* 47 U.S.C. §309(j)(3)(A) (FCC must promote "the development and rapid deployment of new technologies, products, and services for the benefit of the public, including those residing in rural areas").

[56] *See* Comments of RTG at 3 ("The use of package bidding in Auction 96 would run counter to the [] mandates of Section 309(j) by delaying deployment to those residing in rural areas, promoting excessive concentration of licenses and preventing dissemination of licenses to small businesses and rural telephone companies.").

[57] *See* Notice at ¶ 21. In contrast, "[i]n a non-package bidding auction, whether a bid on a license becomes provisionally winning depends only upon the bids submitted for that license." *Id.* at ¶ 74.

If a bid for an individual license currently is "losing" because of a provisionally winning package bid, the bidder may decline to increase its bid on that license for a number of reasons. For instance, the bidder may lack the necessary eligibility to increase its bid; any further bidding may exceed the bidder's valuation of the license; the bidder may believe that a different license which it finds just as desirable will sell for a lower price; or perhaps the bidder fears that the threshold problem amongst the bidders for the individual licenses within this package will be particularly acute. Regardless of the reason why the bidder decides not to increase its bid, as Prof. Robert J. Weber details in the attachment hereto, if the bidder lacks sufficient bidding eligibility to acquire multiple licenses, it must choose between two options. Unfortunately, no matter which path the bidder chooses, "the possibility of an inefficient outcome arises."[58]

One option would be for the bidder to simply cease auction participation rather than risk submitting a bid on another license only to have its first bid suddenly become provisionally winning. In that situation, the bidder, whose auction strategy and business plan involves only a single H Block license, suddenly could be obligated to pay for multiple licenses. As Cellular South noted, it would be "difficult, if not impossible, for bidders to know whether and when their previous rounds' bids might be re-activated in later rounds."[59] This is particularly so given that a bid can subsequently become provisionally winning even if it did "not become a provisionally winning bid at the conclusion of the round in which it was placed…"[60] As a result, many bidders in this situation would feel compelled to terminate their auction participation, and thereby forfeit

[58] *Hierarchical Package Bidding Grossly Disadvantages Smaller (Financially-Constrained) Bidders*, Statement of Robert J. Weber, p. 1 (Aug. 16, 2013) ("*Weber Statement*").

[59] Comments of Cellular South at 3.

[60] *See* Notice at n. 49 (noting that a "bid that does not become a provisionally winning bid at the conclusion of the round in which it was placed may become a provisionally winning bid at the conclusion of a subsequent round").

the opportunity to acquire an H Block license, rather than face such uncertain risks.[61] In turn, auction competition, and thus auction revenue, would decrease.

USCC agrees with RDL that "the Bureau should not presuppose that bidders are only interested in a single geographic license…"[62] Yet, as this example demonstrates, that is precisely the effect package bidding could create for many bidders, an outcome that would conflict with the Bureau's previous finding "that occasionally bidders may need to change bid strategies as prices rise."[63] As Sprint explained, "[h]olding bidders accountable to losing bids from previous rounds prevents adapting strategies in real-time throughout the auction and effectively handcuffs bidders to what were initially losing bids."[64] In contrast, "without HPB, once a bid becomes a losing bid, it can never become a winner, giving participants the flexibility to adapt their strategy as the auction progresses."[65]

As Prof. Weber further explains, the bidder's second option would be to pursue another license even though this would expose the bidder to serious risks. Specifically, the bidder would be risking the possibility that the bids for the other individual licenses within the same package are sufficiently increased so that the package bid no longer is provisionally winning. This would cause the dormant bid to suddenly, and unexpectedly, become provisionally winning, even if the reactivation of that bid caused the bidder to exceed its bidding eligibility.[66] Moreover, assuming

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[61] *See* Comments of Sprint at 9 ("The specter of resurrected losing bids will cause bidders to be more cautious and adapt a less-aggressive strategy.").

[62] Comments of RDL at 21; *see id.* at 12 ("[A] Competitive Carrier could be bidding on spectrum for a variety of reasons other than perhaps acquiring spectrum in a particular service area.").

[63] *Notice and Filing Requirements, Minimum Opening Bids, Reserve Prices, Upfront Payments, and Other Procedures for Auctions 73 and 76*, Public Notice, DA 07-4171, ¶ 245 (Oct. 5, 2007) ("*Auction 73 Notice*").

[64] Comments of Sprint at 9.

[65] *Id.*

[66] *See* Notice at n. 49 (noting that a bid placed in an earlier round could become provisionally winning "even if the bidder does not have the bidding eligibility to cover the newly-provisionally winning bid, a situation that would not occur under the FCC's usual SMR auction procedures").

the Bureau also would adopt other bidding procedures similar to those used in Auction 73, this bidder would be financially liable for this reactivated bid even though the bidder had exceeded its bidding eligibility.[67] In other words, choosing this option could create a binding financial obligation for a license that the bidder had already given up on.[68]

Despite this risk, a bidder may feel compelled to bid on other licenses in order to satisfy its spectrum needs – a decision that may be more likely here than in the past given the current spectrum crunch and the fact that Auction 96 is the first major auction in a number of years. As a result, the Bureau should not adopt bidding procedures that could create a financial obligation for an unwanted license, particularly when the circumstances that created this obligation were completely unpredictable and outside of the bidder's control. Even if a bidder has sufficient resources to purchase both licenses, it should not be forced to do so. It would be far worse, however, to impose this enormous and unintended financial obligation on a bidder who lacks the funds to purchase both licenses.[69] In such a case, the bidder could be forced to default on the license, and thus be liable for a deficiency payment if the license later sells for a lower price. In addition, regardless of the subsequent sale price, the bidder would be liable for a percentage of its bid or the subsequent winning bid, whichever is less.[70] Notably, if the Bureau adopts its HPB proposal, this penalty would automatically be set at 25% of the applicable bid.[71]

Even if the bidder is not forced to default on this unwanted license, if the reactivated bid caused it to exceed its bidding eligibility, the bidder and all other bidders for individual licenses

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[67] *See Auction 73 Notice* at ¶ 245.

[68] *See* Comments of RDL at 20-21 ("[T]hey can bid on other licenses, but they run the real risk that the package bid does not win and they have to honor their now winning provisional bid.").

[69] *See id.* at 8 ("Worse yet, the resurrected bidder may not have the funds needed to consummate the acquisition of the license on which the resurrected bid stands – especially if it has used its eligibility to bid on another block in which it is the high bidder.").

[70] *See* Notice at ¶ 81.

[71] *See id.* at ¶ 82.

within the same package would be put at a further competitive disadvantage. Specifically, because "bidding eligibility will not be increased" in this situation,[72] the bidder would be prohibited from actively competing any further for the license.[73] As a result, if the package bid again becomes provisionally winning, the bidder could not raise its bid, forcing the other bidders to independently attempt to overcome the new package bid.[74] Not only would this virtually guarantee that the package bidder will win, but, as RDL noted, it could allow it to "get the package for less than what [it] would have had to pay" had the individual bidder been able to increase its bid.[75] As Prof. Weber found, "[u]ltimately, the likelihood of an inefficient allocation of licenses is increased under HPB."[76]

D. Package Bidding Would Decrease Auction Revenue.

Commenters also agree that another likely outgrowth of the harms caused by package bidding would be a decrease in auction revenue.[77] For instance, Cellular South explained that, as a result of the "unnecessary complexity and uncertainty" faced by bidders interested only in individual licenses, "package bidding has the potential to generate lower auction participation and, therefore, lower proceeds…"[78] Sprint added that, even if smaller bidders nevertheless participate in Auction 96, the use of package bidding would "decrease revenues by chilling

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[72] *Id.* at n. 49.

[73] *See Auction 73 Notice* at ¶ 162 ("In subsequent rounds, the bidder will not be permitted to place new bids if its total activity from provisionally winning bids exceeds its bidding eligibility.").

[74] *See* Comments of RDL at 8 ("[T]his 'extra' eligibility cannot be used for anything else, and thus would prevent the bidder from increasing their bid in order to continue to challenge the package bidder.").

[75] *Id.* at 21.

[76] *Weber Statement* at 2.

[77] Empirical studies have come to the same conclusion. *See, e.g.*, *Cybernomics Study* at 17 ("The Revenues are higher in the SMR than the Combination auction.").

[78] Comments of Cellular South at 3; *see* Comments of Sprint at 10 ("HPB may decrease the number of competitive bidders in the first instance, as well as overall revenue.").

bidding."[79] Cellular South also noted that auction revenue would decrease because "[p]ackage bidding enables larger operators to acquire licenses at below market value…"[80] Similarly, Sprint described how package bidding "gives an advantage to sophisticated participants seeking to 'game' the auction who could then win packages at significant discounts relative to their actual value."[81] Sprint also recognized that the confluence of these revenue-reducing factors nullifies one of the principal arguments in support of package bidding. Specifically, it noted that, "[w]hile theoretically intended to maximize revenue, the increased complexity risks undermining this goal by increasing participation costs for bidders, chilling aggressive bidding, and creating 'free-rider' problems."[82]

Auction 73 provides a cautionary tale in this respect as well. Specifically, in addition to allowing Verizon to dominate the C Block to the exclusion of smaller bidders, this spectrum, which was subject to package bidding, "was essentially awarded to Verizon at prices per MHz less than the spectrum which was not subject to combinatorial bidding."[83] Although anticipated revenue is a valid consideration whenever the Bureau formulates bidding procedures for an auction,[84] it is particularly important here because lower revenue in Auction 96 means reduced funding for our nation's first responders.[85]

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[79] Comments of Sprint at 8.

[80] Comments of Cellular South at 3; *see* Comments of Broadband Properties at 1 (explaining that, because a "large operator need not increase its bid because on an aggregate basis it can remain the winner without bidding aggressively," package bidding "neither brings the largest possible auction price nor does it follow the spirit of Section 309(j)(3)(B) of the Communications Act…").

[81] Comments of Sprint at 8.

[82] *Id.* at 4.

[83] Comments of RDL at 5; *see* Comments of Cellular South at 4, n. 13 ("Very few Auction 73 participants bid for the Upper C Block licenses and, ultimately, auction revenue for the spectrum was reduced.").

[84] *See Ranger Cellular v. FCC*, 33 F.3d 255, 261 (D.C. Cir. 2003) ("[T]he Commission is free to consider revenue enhancement when determining whether to expand the pool of eligible bidders.").

[85] *See* Comments of Sprint at 4-5 ("[E]ach of these consequences potentially frustrates … generating sufficient revenue to fund FirstNet.").

E. The Bureau's HPB Proposal Would Not Adequately Address the Substantial Harms Package Bidding Inflicts Upon Smaller Bidders.

In its comments, USCC explained how the Bureau's HPB proposal would fail to adequately remedy the many potential harms related to package bidding. For instance, as noted, HPB, while arguably less complex than fully flexible package bidding procedures, would nevertheless cause Auction 96 to be more complicated than it would be with a standard SMR format. As noted by RDL, "the issue is not whether HPB is or is not more complicated" than other package bidding procedures, but "whether combinatorial bidding in general prevents Competitive Carriers from having a fair shot at acquiring spectrum."[86] Sprint similarly noted that "adding the proposed overlay of [HPB], although not as complex as some other HPB variants, unnecessarily introduces complexity…"[87] As such, the use of HPB would conflict with the Bureau's desire for "tractability, transparency, and simplicity."[88]

Sprint also agreed with USCC, as well as Commission precedent,[89] that in addition to doing little or nothing to address the disadvantages package bidding creates for smaller bidders, HPB may not help, and could even harm, large bidders seeking to aggregate multiple H Block licenses. For instance, Sprint noted that HPB's "predetermined packages of licenses presumes that each participant has the same aggregation strategy."[90] Because bidders instead "have different packaging needs and strategies," HPB's prepackaged licenses would "not allow for efficient aggregation"[91] and would "necessarily favor the aggregation needs of some – and not

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[86] Comments of RDL at 10.

[87] Comments of Sprint at 4.

[88] *See id.* (quoting Notice at ¶ 22).

[89] *See Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, Second Report and Order, 9 FCC Rcd 2348, 2366 (1994) ("*Competitive Bidding Second R&O*") ("[I]f there is a wide diversity of desired license groupings, offering only a limited set will not accommodate all preferences and may not enhance efficiency.").

[90] Comments of Sprint at 8.

[91] *Id.*

others – and thereby create external obstacles in the otherwise simple, proven, and efficient SMR design."[92] USCC also explained in its comments how the predefined packages could, in some ways, disadvantage smaller bidders even more than fully flexible package bidding procedures. For instance, because these packages would invariably contain all of the available H Block license areas, not simply those most desired by the largest bidders, it would be less likely that smaller bidders would have an opportunity to bid on individual licenses that are not also included within package bids. In addition, because each package would be of at least a certain size, smaller bidders would have even less chance to compete as package bidders themselves, and it would be even more difficult for bids on individual licenses to collectively exceed a package bid.

According to the Bureau, as compared to Auction 73, the "considerably different circumstances" here[93] should reduce the level of complexity caused by HPB, and thereby not dissuade robust auction participation by other carriers, the lack of which in Auction 73 permitted Verizon to acquire virtually the entire C Block at discounted prices. But USCC and other commenters pointed out that, while the different circumstances here may reduce HPB's inherent complexity to some extent, those differences otherwise demonstrate why any form of package bidding would be even more inappropriate for Auction 96.

For instance, RTG noted that the Commission, in recognition of the disadvantages package bidding creates for smaller bidders,[94] permitted package bids for the C Block "only because it also provided alternative smaller license allocations to ensure that small businesses and rural carriers were able to effectively obtain licenses through the auction process."[95]

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[92] *Id.* at i.

[93] Notice at ¶ 19.

[94] *See Service Rules for the 698-746, 747-762 and 777-792 MHz Bands*, Second Report and Order, 22 FCC Rcd 15289, 15397 (2007) ("*700 MHz Second R&O*") ("Limiting package bidding to licenses for C Block spectrum will prevent package bidding from deterring participation by bidders…").

[95] Comments of RTG at 7-8.

Specifically, the Commission "offered four other licensing opportunities for small businesses and rural carriers…"[96] In contrast, here "the Bureau is proposing package bidding for all licenses in Auction 96."[97] As a result, USCC agrees with RTG that "Auction 96 is not suited to package bidding since only a single license is being offered and there are no licensing alternatives for small businesses and rural carriers."[98] To do otherwise would ignore the Commission's desire "to tailor [each] auction design to fit the characteristics of the licenses that are to be awarded."[99]

F. While Package Bidding Would Significantly Disadvantage Smaller Bidders, the Hypothetical Advantage it Provides Nationwide Carriers is Unnecessary.

As USCC previously explained, while any form of package bidding would subject smaller bidders to the various harms detailed above, large bidders do not require package bidding in order to assemble large geographic service areas and attain economies of scale. As the Commission has repeatedly found, including in the *H Block R&O*, EA-based license areas, along with the Commission's standard auction procedures, provide bidders with ample spectrum aggregation opportunities.[100] In other words, as RDL observed, the Bureau's HPB proposal "is a solution in search of a problem."[101] Other commenters similarly recognized the lack of any need for package bidding in Auction 96.[102]

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[96] *Id.* at 8; *see* Comments of RDL at 11 ("In Auction 73, the package only applied to 5 regional EA groups – so it effectively only affected 5 licenses.").

[97] Comments of RDL at 11.

[98] Comments of RTG at 8.

[99] *Competitive Bidding Second R&O*, 9 FCC Rcd at 2367.

[100] *See H Block R&O*, 28 FCC Rcd at 9500-01 ("EAs are large enough that large carriers can aggregate them up to larger license areas … thus achieving economies of scale."); *Competitive Bidding Second R&O*, 9 FCC Rcd at 2366-67 ("[T]he simultaneous round auction design offers many of the aggregation advantages of combinatorial bidding without creating a free rider problem that may bias the outcome in favor of combinatorial bids…").

[101] Comments of RDL at 12; *see id.* at 9 ("[B]idders are able to aggregate the blocks of spectrum that they need for their business plan using a plain SMR auction without combinatorial bidding.").

[102] *See, e.g.*, Comments of RTG at 8 ("[T]he Commission does not need to adopt package bidding to provide opportunities for bidders to aggregate licenses for nationwide coverage.").

Not only is package bidding unnecessary for large carriers to acquire a sufficient number of licenses to achieve economies of scale, it could in fact force large carriers' to pursue a suboptimal approach to aggregating licenses. For instance, Sprint explained how "[a]uctioning individual licenses provides each bidder the opportunity to advance its own packaging strategy."[103] Sprint's opposition to package bidding in Auction 96 is particularly notable. As a nationwide carrier with substantial resources, Sprint likely would not suffer the harms package bidding imposes upon smaller bidders. Also significant is the fact that Sprint, presumably, is highly interested in H Block spectrum, perhaps even on a large geographic scale, because it holds all of the licenses for the adjacent PCS G Block.[104] As Sprint noted in the H Block rulemaking proceeding, the Commission's decision to generally harmonize the technical and service rules across these blocks "will allow adjacent licensees to readily incorporate such spectrum into existing operations and facilitate harmonious operations across bands."[105]

In contrast, both of the other nationwide carriers – who typically are alone in their support for package bidding – that filed comments in this proceeding appear to only be interested in having Auction 96 establish precedent for the use of package bidding, and thereby make it more likely that the Commission will adopt similar procedures for future auctions. For instance, T-Mobile simply noted its belief that Auction 96 would be a "good opportunity" to evaluate new auction procedures,[106] and that, "[b]ased on its use of HPB here, the Commission will be in a better position to evaluate its use in future, more complex, auctions."[107] Sprint, on the other

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[103] Comments of Sprint at 5, n. 16; *see id.* at 5 ("[A]n SMR format would assist each participant in pursuing its own unique and tailored packaging strategy in the most efficient manner.").

[104] *See H Block R&O*, 28 FCC Rcd at 9508.

[105] Comments of Sprint Nextel Corporation, WT Docket No. 12-357, p. 15 (Feb. 6, 2013); *see H Block R&O*, 28 FCC Rcd at 9493 ("[T]he 1995-200 MHz band, in many respects, will operate as an extension of the PCS band.").

[106] Comments of T-Mobile USA, Inc. at 2.

[107] *Id.* at 4; *see id.* at 7 ("The Commission should modify its usual auction rules, particularly as a precursor to upcoming auctions…"). T-Mobile's other proposals, however, weigh against the use of package bidding. For

hand, stressed that "the public interest disfavors *experimenting* with different auction formats and package overlays that are likely to introduce unnecessary complexity and uncertainty into the H Block license assignment process."[108] Like T-Mobile, AT&T restricted its comments to a few broad policy arguments, wholly failing to explain why package bidding would be appropriate for Auction 96 in particular.[109]

In its comments, however, USCC detailed why package bidding would be particularly unnecessary in Auction 96. For instance, USCC explained that, while the Commission has found that package bidding helps to reduce the "exposure problem" potentially faced by new entrants seeking to create a nationwide footprint,[110] the interest level in Auction 96 from this type of bidder likely will be low because, as a result of the H Block's location, most bidders likely will be current PCS licensees.[111]

USCC, like other commenters, also noted that, while large bidders have the opportunity to aggregate licenses in the absence of package bidding, smaller bidders are unlikely to gain post-auction access to the H Block through the secondary market.[112] Simply put, the large carriers who likely would dominate Auction 96 if the Bureau adopts its HPB proposal lack sufficient incentives, and in fact have a disincentive, to enter into secondary market transactions

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instance, T-Mobile "recommends that the FCC conduct the H Block auction in a simple, flexible manner, following the familiar rules and procedures…" *Id.* However, as detailed herein, package bidding prevents simplicity and flexibility, and the lone use of package bidding in Auction 73 certainly does not make it a "familiar" procedure. T-Mobile then suggests that the "Commission should modify its usual auction rules … where those modifications can produce greater competition among providers, greater participation by bidders, and more efficiency in the auction process." *Id.* at 7-8. Again, as detailed herein, package bidding would prevent, rather than produce, these results.

[108] Comments of Sprint at 6 (emphasis added).

[109] *See* Comments of AT&T at 2-3.

[110] *See, e.g.*, *700 MHz Second R&O*, 22 FCC Rcd at 15397.

[111] *See* Comments of USCC at 11.

[112] *See* Comments of RTG at 6 ("Waiting on the secondary market transactions [] will only cause undue delay in H Block deployments reaching consumers in rural areas and there is no guarantee that the secondary market will even develop, especially since the FCC's build-out requirements are population based rather than geographic based."); Comments of RDL at 10 ("The Commission has always favored the 'building block' approach over the disaggregation approach that HPB would require…").

with potential competitors. The Bureau therefore must decline to implement package bidding in order to provide smaller carriers with a reasonable opportunity to win H Block licenses during Auction 96. For the above reasons, USCC agrees with Sprint that, "[i]nstead of adopting a package scheme that will likely advantage some and disadvantage others," the Bureau should have "each participant pursue their packaging needs at the individual license level."[113]

G. The Bureau Should Not Adopt a Single Round Sealed Bid Auction Format.

USCC also joins other commenters in urging the Bureau not to conduct Auction 96 as a single round sealed bid auction.[114] Rather, as noted, USCC supports the Bureau's proposal to use "standard" SMR auction procedures – *i.e.*, without package bidding.[115] Notably, the Commission adopted the SMR auction format as its "primary auction methodology"[116] because SMR auctions are "in most circumstances the best method to advance the goals for competitive bidding…"[117] For this reason, major spectrum auctions have consistently included multiple rounds of bidding, making the "traditional SMR format [] tested and proven successful."[118] No reason exists for the Bureau to take a different approach here.

For instance, the Commission has noted that a "primary characteristic" which influences its choice of auction design is "the expected value of the licenses being auctioned."[119] In this respect, the Commission explained that, while some license values may be so low that the administrative costs of an SMR auction would exceed the value of the licenses, "most licenses

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[113] Comments of Sprint at 8, n. 29.

[114] *See, e.g., id.* at 10; Comments of RDL at 13.

[115] *See* Notice at ¶ 22 ("If we do no implement package bidding for Auction 96, we propose to conduct the auction using standard SMR procedures.").

[116] *Competitive Bidding Second R&O*, 9 FCC Rcd at 2360.

[117] *Id.* at 2366.

[118] Comments of Sprint at 6; *see* Comments of T-Mobile at 3 ("The Commission has a long and successful history with these bidding procedures.").

[119] *Competitive Bidding Second R&O*, 9 FCC Rcd at 2367.

can be expected to have a relatively high value."[120] This finding was a "major factor" leading the Commission to select the SMR format as its preferred option.[121] Consequently, because the projected value of the paired H Block spectrum is $2-3 billion,[122] the Bureau should conduct Auction 96 using the traditional SMR format preferred by the Commission.

Numerous other reasons also caused the Commission to adopt the SMR format as its primary auction methodology. For instance, SMR auctions "allow participants to gather feedback during multiple rounds of bidding, enabling them to make better informed bidding decisions…"[123] As a result, the SMR auction format "increases the likelihood that licenses are assigned to bidders that value them most highly…"[124] An SMR auction also would benefit bidders seeking to aggregate multiple H Block licenses in Auction 96.[125] Another advantage of the SMR format is that it "allows bidders to pursue backup strategies during the course of an auction, should their preferred licenses or spectrum plans become too expensive."[126]

Single round sealed bid auctions, on the other hand, can force "bidders to arbitrarily choose just one plan to pursue."[127] This is particularly true for smaller bidders, who generally lack the resources that could justify exposing themselves to the risk involved in submitting

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[120] *Id.*

[121] *See id.*

[122] *Service Rules for Advanced Wireless Services in the 2000-2020 MHz and 2180-2200 MHz Bands*, Report and Order and Order of Proposed Modification, 27 FCC Rcd 16102, 16129 (2012) ("*AWS-4 R&O*").

[123] Comments of T-Mobile at 3; *see Competitive Bidding Second R&O*, 9 FCC Rcd at 2362 ("In a multiple round auction, bidders need not guess about the value the second highest bidder places on the license because bidders have the opportunity to raise their bids…").

[124] *Competitive Bidding Second R&O*, 9 FCC Rcd at 2362; *see id.* (explaining that, "[w]ith better information, sophisticated bidders will have less incentive to bid cautiously so as to avoid falling victim to the winner's curse.").

[125] *See id.* at 2366 (noting that, in contrast to single round auctions, SMR auctions "facilitate efficient aggregation across … geographic areas").

[126] Comments of T-Mobile at 3; *see Competitive Bidding Second R&O*, 9 FCC Rcd at 2366 (noting that an SMR auction "provides bidders with the most flexibility to pursue back-up strategies").

[127] *Weber Statement* at 2.

sealed bids for multiple licenses in the hopes of winning only one.[128] As noted by Prof. Weber in the attachment hereto, the result is that a single round sealed bid auction "works to the particular disadvantage of small bidders, and serves the public interest poorly by making an inefficient allocation of licenses very likely."[129]

Although the Bureau proposed a single round auction as an alternative because it could "simplify the process for bidders and reduce the costs of auction participation,"[130] USCC agrees with Sprint that this "simplicity comes at a cost."[131] For instance, the Commission has noted that, "[i]n a single round auction, bidders must guess about the value that other bidders place on a license in trying to submit a single bid that just exceeds the next highest bid."[132] Two possible consequences arise from an incorrect guess, both of which harm bidders and the auction process.

First, a bidder that highly desires a particular license could submit a lower bid than what it would have been willing to pay because it underestimated other bidders' interest level in a particular license. In other words, one potential consequence of a single round auction is that "the party who values the license most highly may not submit the highest bid."[133]

Second, a bidder could incorrectly anticipate robust bidding for a particular license, causing it to fall victim to the "winner's curse," which the Commission has described as "the tendency [in single round auctions] for the winner to be the bidder who most overestimates the value of the item for sale."[134] This could be especially harmful to smaller bidders who rely on

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[128] *See* Comments of RDL at 13 (single round auctions "tilt the playing field in favor of larger incumbent bidders").

[129] *Weber Statement* at 2; *see* Comments of Sprint at 10 ("In a single round sealed bid auction, participants are offered no transparency of other bidders' activity, no flexibility in adapting their bidding strategies, and are left bidding in fear of buyers' remorse.").

[130] Notice at ¶ 23.

[131] Comments of Sprint at 10.

[132] *Competitive Bidding Second R&O*, 9 FCC Rcd at 2362.

[133] *Id.*

[134] *Id.*; *see* Comments of RDL at 15 ("A single round sealed bid also increases the risk of a 'winners curse.'").

outside financing. As RDL explained, although the "bidder may be successful in acquiring the spectrum, they may pay so much more than others value the spectrum that banks and investors may be unwilling to invest to construct the necessary networks."[135]

Regardless of which consequence bidders fear more, the uncertainty created by single round auctions deters potential bidders from participating in an auction, thereby decreasing auction participation, and thus auction revenue.[136] In contrast, the Commission has found that the "superior information and flexibility" provided by SMR auctions is "likely to yield more revenue than other auction designs."[137] Accordingly, "[a]s an important funding mechanism of FirstNet, the H Block auction should not adopt the design *least likely* to generate revenue."[138]

III. THE BUREAU SHOULD NOT ADOPT ANONYMOUS BIDDING PROCEDURES

USCC again strongly urges the Bureau not to adopt anonymous, or "blind," bidding procedures because, absent information regarding other bidders, their bid amounts, and their bid eligibility, participation in Auction 96 will be less robust and the H Block licenses will sell at depressed prices. As RDL noted, every auction should be structured so that it "will deliver licenses to those that value them most because they are in a position to put the licenses to the highest and best use."[139] The Commission has recognized that the benefit of this approach is that it "will likely encourage growth and competition for wireless services and result in the rapid deployment of new technologies and services."[140] Moreover, with respect to the H Block in particular, the Commission noted that, by establishing rules which allow this "spectrum band to

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[135] Comments of RDL at 15.

[136] *See* Comments of Sprint at 10 (single round auctions may "decrease auction participation" and "yield significantly lower revenue levels").

[137] *Competitive Bidding Second R&O*, 9 FCC Rcd at 2366.

[138] Comments of Sprint at 11 (emphasis in original).

[139] Comments of RDL at 16; *see Competitive Bidding Second R&O*, 9 FCC Rcd at 2361 ("[L]icenses generally should be awarded to those who value them most highly…").

[140] *Competitive Bidding Second R&O*, 9 FCC Rcd at 2349-50.

be put to its highest and best use," it also furthered "Congress's objectives related to the use of public safety broadband spectrum in the 700 MHz band."[141]

Unfortunately, the use of blind bidding would make these public interest benefits far less likely. As RDL explained, assigning licenses to those who value them most highly, and who will put the spectrum to its highest and best use, "is only possible if bidders have sufficient information about the market being entered to make an intelligent valuation decision."[142] For instance, accurate license valuations often require information regarding the identities of likely other licensees.[143] Smaller bidders in particular require this information because their license valuations are based in large part on certain technical considerations, such as the availability of interoperable devices. As USCC previously explained, smaller bidders specifically need to know whether a national carrier will become a licensee within the same spectrum band. Absent this information, they risk acquiring spectrum rights for which a device ecosystem may never materialize,[144] or, if devices do become available, their introduction may be delayed or their prices may not benefit from the economies of scale made possible by the nationwide carriers.[145] As noted by RDL, because blind bidding withholds this crucial information, it "hampers the ability of Competitive Carriers to meaningfully participate in the auction."[146]

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[141] *AWS-4 R&O*, 27 FCC Rcd at 16127-28 (explaining that the Spectrum Act directs that the proceeds from an auction of the H Block "be deposited into the Public Safety Trust Fund, which will be used to fund FirstNet.").

[142] Comments of RDL at 16-17.

[143] *See id.* at 17 ("Perhaps the most important market information is knowing who the competitors are, what spectrum they are acquiring, and how much spectrum they have."); *Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, Second Memorandum Opinion and Order, 9 FCC Rcd 7245, 7252 (1994) (noting that license valuations may "be highly dependent on knowing the identity of neighboring carriers, especially regional leaders and competitors").

[144] *See* Comments of RDL at 17 ("[A] Competitive Carrier may be willing to bid more for a license if it knows that AT&T and Verizon also are acquiring licenses, with an eye towards the greater likelihood of this band receiving equipment manufacturers' attention.").

[145] *See id.* ("Competitive Carriers are well aware of the critical importance of economies of scale with respect to equipment availability, and are likely to structure their bids accordingly given additional bidder information.").

[146] *Id.* at 26.

Blind bidding also is particularly harmful for smaller bidders because they are far more likely than the large carriers to require outside financing. As USCC detailed in its comments, financial institutions have stressed to the Commission on numerous occasions that blind bidding prevents them from accurately gauging the level of risk, making it difficult to justify lending money to bidders. Similarly, in this proceeding, RDL explained how blind bidding "makes it more likely that the Competitive Carriers will not only be able to secure the necessary funds to acquire the spectrum, but also the funds necessary to develop the spectrum."[147] Yet another consequence of blind bidding that uniquely disadvantages smaller bidders is the inherent conflict between the confidentiality obligations related to blind bidding and the SEC's public disclosure requirements. As USCC detailed in its comments, smaller bidders have greater exposure to the legal risks created by this conflict because their auction activity is far more likely to be deemed "material," and thus be required by the SEC to be publicly disclosed.

USCC also previously explained that, while blind bidding gives rise to substantial public interest harms, it is unclear whether withholding bidder information provides any real benefits or otherwise is necessary. Only the Commission's earliest auctions involved collusive bidding tactics, and since that time, new laws, rules and policies have been adopted which provide the Commission with the necessary tools to prevent collusive bidding while still providing bidders the information necessary to ensure robust competition and a successful auction. Even if the public disclosure of bidder information slightly increases the odds that some bidders will engage in anti-competitive auction strategies, USCC agrees with RDL that "the benefits to Competitive Carriers of having bidder information far outweigh the risk that a Competitive Carrier will be targeted and blocked from entering a new market by an incumbent."[148]

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[147] *Id.* at 3.

[148] *Id.* at 18.

USCC again stresses the importance of providing transparency in Auction 96 if the Bureau unwisely adopts its HPB proposal. As USCC detailed in its comments, blind auctions greatly magnify the threshold problem caused by package bidding because knowing the identity of those who have bid on other licenses within a package, as well as the values they currently attach to those licenses, often are decisive factors in deciding whether to increase a current bid for another individual license contained within the same package. USCC also noted that the only time the Bureau has adopted both package and blind bidding procedures was in Auction 73. However, in contrast to the Bureau's proposal here, in Auction 73, the package bidding procedures applied to only a small portion of the spectrum being offered, meaning it would be unprecedented for the Bureau to both allow package bidding in, and adopt blind bidding procedures for, Auction 96. Sprint similarly recognized that it would be wholly inappropriate for the Bureau to adopt both of these procedures. Specifically, although Sprint generally endorsed blind bidding procedures for Auction 96, its support is "predicated on the Commission's adoption of an SMR format without package bidding…"[149]

Further, blind bidding is especially unnecessary here due to the particular characteristics of Auction 96. For instance, the Commission has found that the potential for anti-competitive bidding behavior is greater when an auction, unlike here, offers multiple, substitutable blocks of licenses for sale. In this respect, USCC notes that T-Mobile's rationale for supporting blind bidding in Auction 96 in fact weighs in favor of a fully transparent auction.[150]

Finally, if the Bureau has specific concerns regarding whether Auction 96 will be sufficiently competitive, USCC again it urges it to, at most, establish an eligibility ratio, above

[149] Comments of Sprint at 11, n. 36.

[150] *See* Comments of T-Mobile at 5 ("T-Mobile thus supports the Bureau's proposal to use anonymous bids in this auction, particularly because there are limited blocks of spectrum available. A different approach may be appropriate in auctions where multiple blocks of spectrum are offered…") (internal citation omitted).

which the auction would be deemed competitive and thus subject to open bidding rules. As USCC detailed in its comments, if the Bureau pursues this approach rather than announce upfront that Auction 96 will be fully transparent, it should establish an eligibility ratio of 2.5 because several past auctions have barely exceeded the more stringent eligibility ratio of 3.0 even though those auctions involved robust competition and garnered substantial revenues.

IV. CONCLUSION

If the Bureau permits package bidding or adopts blind bidding procedures, it would risk shutting smaller bidders out of Auction 96. As a result, these bidders would be prevented from taking advantage of the H Block's unique characteristics in order to increase competition in the wireless industry and quickly and cost-effectively deploy service in rural and other underserved areas. As summarized by RTG, and as detailed above, the use of package bidding in Auction 96 would result in "delaying deployment to those residing in rural areas, promoting excessive concentration of licenses and preventing dissemination of licenses to small businesses and rural telephone companies."[151] Accordingly, the Bureau should conduct Auction 96 using the standard SMR format without package bidding. The information disparities created by blind bidding also have a disproportionately adverse effect on smaller bidders. Not only do these bidders lack the resources necessary to independently discover the withheld information, but they rely on such information to a much greater extent in order to accurately value licenses. As a result, blind bidding would deter smaller bidders from participating in Auction 96. For these reasons, both the public interest and the law require that Auction 96 be structured in ways that provide smaller bidders with a legitimate chance to acquire H Block licenses.

[151] Comments of RTG at 3; *see* Comments of Sprint at 4-5 (noting that package bidding "potentially frustrates the broader public interest goals of promoting the rapid deployment and development of innovative and competitive broadband services, fostering economic growth, and generating sufficient revenue to fund FirstNet.").

Respectfully submitted,

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Hierarchical Package Bidding Grossly Disadvantages Smaller (Financially-Constrained) Bidders

Statement of Robert J. Weber
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August 16, 2013

Comments filed in response to a July 15, 2013 Public Notice in AU Docket No. 13-178 by United States Cellular Corporation, RDL Management, LLC, and others present a number of concerns with regard to the use of hierarchical package bidding ("HPB") procedures in Auction 96. As detailed below, two of the procedures proposed for Auction 96 have particularly serious flaws that warrant further emphasis.

Hierarchical Package Bidding Procedure

As presented in the Public Notice, the HPB procedure holds every highest-previously-submitted bid for a license in reserve, and can reactivate that bid if needed in order for individual bids to collectively top a package bid. Consider, as a simple example, a capital-constrained bidder seeking to acquire just one of several individual licenses. If that bidder is the high bidder for a single license, but is unwilling to raise its bid when a new bid for a package containing that license becomes provisionally winning, the bidder faces a choice. If they stop bidding (and sacrifice eligibility), they might fail to acquire some other license (possibly in another branch of the hierarchy) which is ultimately available at an acceptable price. But if they continue bidding elsewhere, they face the possibility that other bidders later raise their bids on other licenses in the original package, this bidder's own original high bid is reactivated, and they end up responsible for the purchase of more licenses than they can afford.

No matter which path they choose, the possibility of an inefficient outcome arises. And if they conservatively choose the first path (*i.e.*, to stop bidding), their own disadvantage is matched with a competitive advantage awarded to larger auction participants: Smaller participants are driven out of the auction earlier than they would have been driven out under the standard simultaneous multiple-round ("SMR") procedure without package bidding.

A similar, slightly more complex example has a bidder seeking either a pair of contiguous licenses in one package, or another pair of contiguous licenses in another package. (The bidder has no interest in holding single licenses within two different packages.) Again, when the price of the two licenses the bidder first competes for within one package becomes unacceptably high (or simply becomes much higher than the current price of the two licenses in the other package) and a bid for the package becomes provisionally-winning, the bidder must either not bid on the second pair, or risk ultimately winning one (or more) license(s) in each of the two separate packages.

With regard to the experimental studies cited in footnote 18 of the Public Notice, and the *ex parte* filing submitted in the docket on August 5, 2013 by Jacob Goeree and Charles Holt, note that the discussed experiments presented the subjects with simple consumption constraints,

but no direct financial constraints, and therefore give little insight into the problem discussed here. Similarly, AT&T and T-Mobile endorse the use of the HPB procedure, but make no mention whatsoever of the unattractive choices (and competitive disadvantage) the procedure potentially forces upon smaller, financially-constrained bidders.

In summary, under the HPB procedure, smaller bidders can face the unattractive choice of either risking an outcome completely inconsistent with their business plans, or conservatively dropping out of the auction before they would have under an SMR procedure (to the advantage of larger participants). Ultimately, the likelihood of an inefficient allocation of licenses is increased under HPB.

Single Round Sealed-Bid Auction Format

Conducting simultaneous sealed-bid auctions of spectrum licenses, in a setting where some bidders have alternative acquisition plans which vary depending on how various licenses end up being priced, forces such bidders to arbitrarily choose just one plan to pursue. This works to the particular disadvantage of small bidders, and serves the public interest poorly by making an inefficient allocation of licenses very likely.

Until 1985, the Department of the Interior used simultaneous sealed-bid auctions to sell petroleum leases on the U.S. Outer Continental Shelf ("OCS"). In order to gain a foothold in any particular area, without risking an over-commitment of capital in that one area, major oil companies were forced to select their "serious" bidding targets at random. (For a theoretical treatment of this issue and the resulting inefficiencies, *see* R. Engelbrecht-Wiggans and R.J. Weber, "An example of a multi-object auction game," *Management Science* 12, 1979, 1272-1277.) Eventually, the Department of the Interior chose to abandon this auction procedure for OCS leasing.

Conclusion

For these reasons, the choice to use the well-tested SMR procedure (allowing for possibly-penalized bid withdrawals to deal with the exposure problem) is far superior to either of the alternative proposals for Auction 96.

Robert J. Weber is the Frederik E. Nemmers Distinguished Professor of Decision Sciences at the Kellogg School of Management, Northwestern University. He has conducted research on auction design and competitive bidding since 1978. In 1985, he assisted the U.S. Department of the Interior in its transition from the use of nomination sales to area-wide bidding to sell leases of petroleum rights on the Outer Continental Shelf. In 1992, for the U.S. Department of the Treasury and the Board of Governors of the Federal Reserve, he led the public hearing resulting from the Salomon Brothers scandal. His recommendations were subsequently implemented in the Treasury's move from the use of discriminatory auctions to uniform-price auctions for the sale of its debt issues. Since 1992 he has worked for private clients in both the FCC's auction design efforts and in the bidding phase of several spectrum auctions.