Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the matter of	)	
	)	
Service Rules for the 698-746, 747-762, and 777-792 MHZ Bands	)	WT Docket No. 06-150
	)	
Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHZ Band	)	PS Docket No. 06-229
	)	
Implementation of the Commercial Spectrum Enhancement Act and Modernization of the Commission's Competitive Bidding Rules and Procedures	)	WT Docket No. 05-211
	)	
Development of Operational, Technical, and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through 2010	)	WT Docket No. 96-86

EX PARTE COMMENTS OF THE *AD HOC* PUBLIC INTEREST SPECTRUM COALITION

To: The Commission

Media Access Project, on behalf of Consumers Union, Consumer Federation of America, Free Press, New America Foundation and Public Knowledge (collectively referred to here as the "Public Interest Spectrum Coalition" or "PISC"), files these *ex parte* comments addressing the proposal submitted by Frontline, the proposed Band Optimization Plan, and auction and service rules needed to ensure that this auction of unique and highly valuable spectrum will maximize the likelihood of competitive entry in broadband wireless that protects public safety, increases opportunities for minority and women owned businesses, and promotes broadband access by ***all*** Americans.

SUMMARY

Only by adopting significant changes to the auction rules and service rules can the Commission hope to auction the uniquely important 700MHz spectrum in a manner that both maximizes the public

interest and returns maximum value for the use of the public asset. The first of these would be to embrace the Frontline proposal to create a new, open access wireless wholesaler. To facilitate that result, the Commission should immediately solicit public comment on that plan. Other necessary changes are the adoption of anonymous bidding and package bidding, and conclusion of the *Further Notice of Proposed Rulemaking* on DE eligibility. The Commission should also either prohibit wireline and large wireless incumbents from bidding, or require them to bid through structurally separate affiliates operating under an "open access" condition similar to the Commission's *Computer III* regime.

In addition, the Commission should consider new ways to address the problem of warehousing. PISC recommends permitting unlicensed devices approved for operation in the broadcast "white spaces" to operate where licensees have missed their build out requirements by treating these unbuilt systems as "vacant channels" until the licensee complies. Alternatively, the Commission should consider other forms of self-executing remedies that create an incentive to avoid warehousing. Further, although the Commission should adopt the so-called "band optimization plan," it should reject the suggestion that it attempt a "reverse auction," as a means of allocating use of the guard bands after the fact. Finally, although the Commission should ensure a sufficient number of small licenses for the benefit of smaller rural carriers, it must balance this against the greater need of allowing new entrants to construct national footprints.

ARGUMENT

The AWS auction this past summer demonstrated that continuing to hold open, ascending auctions to distribute virtually unregulated licenses merely serves to enhance the stranglehold of incumbents and the designated entities with whom they have material relationships. An exhaustive analysis conducted by Dr. Gregory Rose shows that wireless and cable incumbents actively sought

to block DBS providers and other potentially disruptive competitors from establishing a national footprint ("Rose AWS Analysis").[1] Analysis of the AWS auction also suggests that incumbents financed the participation of a sufficient number of designated entities to avoid anonymous bidding.

Thus, while loudly touted as a great success, the AWS auction failed to achieve any of the public interest goals mandated by Congress. Indeed, treating the AWS auction as a standalone market, and excluding the nonsalient entrants who entered merely to inflate the initial eligibility ratio artificially and thus avoid anonymous bidding, AWS license distribution has the highest HHI of any major FCC auction. Not only did the AWS auction fail to introduce new, disruptive competitors and fail to create new opportunities for women and minority owned businesses to deliver wireless services, but the AWS auction also failed to maximize revenue. As Dr. Rose demonstrates, the AWS licenses were sold at bargain prices using the standard MHz/pop analysis.

Further, as demonstrated by a recent filing by former FCC Chief Economist Simon Wilkie on behalf of M2Z ("Wilkie Auction Analysis") (Attachment A), incumbents have used the auction process to block entry into related broadband markets. Incumbents have consistently warehoused valuable spectrum to keep it out of the hands of competitors and to avoid disrupting their existing business models. The increased concentration in the wireless market, coupled with vertical integration of wireless and wireline incumbents, has made blocking and warehousing both easier and more attractive.

I. THE COMMISSION SHOULD ADOPT THE FRONTLINE PROPOSAL, SUBJECT TO CERTAIN SAFEGUARDS

The Commission should adopt the proposal to create a new, national "E Block" license as proposed by Frontline. To facilitate this outcome, the Commission should immediately solicit and

[1]The Rose AWS analysis will be separately filed in this docket on or before April 10, 2007.

expedite public comment on the Frontline proposal.

The Frontline proposal will create a valuable national wholesale provider of usable spectrum for competing wireless providers. This model will provide much needed spectrum to minority and women owned businesses and rural providers, WISPs, and others that have complained that they cannot find sufficient usable spectrum in the secondary markets. In addition, the proposal conveys the key benefits of the Cyren Call proposal to the public safety community without requiring an allocation of an additional 30 MHZ of spectrum.

A. Frontline Confers Valuable Benefits To The Public As Well As To The Public Safety Community.

The Frontline proposal enumerates the numerous benefits to the public safety community and general spectrum efficiency from its proposal. But the proposal also provides significant benefit to the general public above and beyond the contribution to public safety.

The Frontline proposal appears to be the most likely means of ensuring an open, neutral wireless broadband network available on a national basis in the near future. Given the Commission's determination to rely exclusively on "the market" to resolve the critical public policy issues of broadband competition and network neutrality, the Commission should take this necessary action to ensure that a neutral wireless provider exists. Otherwise, vertically integrated incumbents will have no incentive to open their networks and will continue to offer only packages that seek to leverage their market power.

The Commission has consistently refused to require that wireless providers offer wholesale access to scarce spectrum or comply with the same network attachment rules as wireline networks. Instead, the Commission has preferred to rely on voluntary mechanisms such as its secondary market

rules. Initially, the Commission justified this laissez faire policy first on the grounds that wireless services were "nascent" industries. More recently, the Commission has relied on the theory that competition and the need to increase revenues would drive wireless providers to explore wholesale markets while courting customers by providing open networks.

Unfortunately, the Commission's narrow view of market structure and acceptance of a highly simplified view of market incentives has failed to produce a single, national open wireless network. Nor has it made spectrum available to new entrants. To the contrary, horizontal consolidation in the wireless market and vertical consolidation of wireline telecommunications providers and wireless providers has created a world in which wireless networks have greater incentive to create "walled gardens" for subscribers, exact rents from equipment manufacturers, and warehouse spectrum to maintain scarcity and prevent the emergence of competition.

A recent New America Foundation Working Paper by Columbia Professor Tim Wu meticulously documents how the wireless industry has responded to the Commission's failure to impose sufficient consumer safeguards. *See* Tim Wu, "Wireless Net Neutrality: Cellular *Cartefone* and Consumer Choice in Mobile Broadband," New America Foundation (2007). As Professor Wu documents, the wireless carrier industry has evolved into a cartel (Wu uses the term "spectrum oligopoly") with its largest members either vertically integrated with the largest incumbent telephone providers or in strategic relationships with the largest cable providers. This in turn drives the "spectrum oligopoly" to seek to control the nature of innovation on their network so as to maximize the rents extracted from equipment manufacturers or those seeking to offer new services, as well as protect the core voice and/or data businesses of their ILEC or cable partners.

In such an environment, the Commission must reevaluate its expectation that competitive

pressures will prod wireless networks into business models that maximize consumer welfare. Absent regulatory changes that would require wireless networks to operate in a neutral manner and permit subscribers to attach devices to their networks, it seems remarkably unrealistic to assume that any of the national incumbents will change their behavior.

For similar reasons, the expectation that carriers will release significant spectrum for competing services voluntarily is equally unrealistic. WISPs and others have repeatedly complained that carriers would prefer to warehouse spectrum and forgo wholesale revenue rather than create retail competitors. Rural communities and minority communities consistently complain that they are underserved, to the point that such communities have increasingly taken action to provision themselves *via* available unlicensed spectrum, yet incumbents keep valuable spectrum warehoused rather than make it available through the secondary markets. It seems far more probable that they do so because they wish to maintain scarcity and discourage the entry of competitors rather than because wholesale wireless does not offer a viable business model. Again, therefore, absent Commission action, no wholesale wireless providers will emerge.

Ideally, the Commission would impose such rules on the wireless industry generally as the regulatory regime that best serves the public interest. At the least, however, with a proposal to introduce such an open access wireless provider into the market ***voluntarily***, the Commission should seize it with both hands. Further, because of the unique nature of the 700 MHZ band, a national licensee operating on wholesale basis can provide significant improvement by helping to disrupt the existing *status quo*.

PISC stresses that a single national wholesale licensee does not, in and of itself, eliminate the need for a generally applicable rule on network attachments and network neutrality. But the

introduction of such a licensee will create measurable improvements by making spectrum available to wireless entrepreneurs. In particular, communities that do not provide sufficient potential revenue to entice the incumbents to deploy, yet remain starved for spectrum that the incumbents have warehoused, will benefit.

B. The Commission Must Impose Safeguards To Prevent Incumbents From Capturing The E Block Spectrum.

As explained in the Wilkie Auction Analysis, incumbents can and have engaged in several successful strategies to warehouse spectrum to keep it from potential competitors. The greatest danger to the E Block therefore is not, as some suggest, that it will attract few bidders. To the contrary, it is far more likely – if the Commission adopts the Frontline proposal – that the incumbents will attempt to win the E Block for themselves. As the E Block licensee, an incumbent can satisfy the public safety build out requirements yet stymie the effort to create a wholesale spectrum market. Alternatively, the incumbents may seek to eliminate the threat of competition by leasing significant spectrum from the E Block licensee for the sole purpose of depriving would-be rivals of capacity.

Should Frontline succeed in becoming the E Block licensee, it would undertake to operate exclusively as a wholesaler, making its network available to all retail service providers, selling "minutes" (or, perhaps more accurately, megabits) instead of leasing its spectrum.[2] However, there is nothing in the service rules proposed by Frontline in its March 27 ex parte letter that would impose a wholesale-only license condition on Frontline or on any other holder of the E Block license, or that would otherwise restrict the E Block licensee from leasing substantial portions of its capacity to

[2]See Frontline Comments filed February 26, 2007 at 9 n. 10. See also, Frontline Reply Comments filed March 12, at 8, n. 21: "The network operator would provide and enable authentication, authorization, and accounting functionality...."

incumbents to keep that capacity inaccessible to potential rival operators. Accordingly, PISC recommends that the Commission adopt one of several alternative mechanisms to guard against warehousing of 700 MHz spectrum capacity.

In the past, the Commission has used three mechanisms to promote competition in the face of entrenched incumbents. First, the Commission has at times resorted to a complete cross-ownership or bidding ban. For example, the Commission prohibited incumbent cable operators from acquiring MDS and MMDS (now BRS) licenses in the hopes of promoting "wireless cable" as a competitive alternative. *See Report and Order in Gen. Dockets Nos. 90-54 and 80-113*, 5 FCCRcd 6410 (1990). Second, the Commission has used spectrum caps to ensure that a suitable number of competitors will emerge in the market place. *See In re Amendments to Parts 20 and 24 of the Commission's Rules – Broadband PCS and Competitive Bidding and the Commercial Mobile Radio Service Cap*, 11 FCCRcd 7824 (1996). *See also In re Revision of Rules and Policies for the Direct Broadcast Satellite Service*, 11 FCCRcd 9712 (1995) (adopting one-time rule prohibiting incumbent licensees from bidding on new satellite slots). Third, the Commission has required operators with market power to operate using separate affiliates, so that the Commission can monitor and prevent discrimination by incumbents in favor of their own affiliates. Of great relevance here, the Commission's use of separate affiliates under the *Computer II* & *Computer III* regimes permitted the emergence of a vibrant and competitive ISP market that created the internet revolution of the 1990s.

The Commission should give careful consideration to adopting one of these three mechanisms to prevent capture of the E Block license either through the auction or afterward by leasing the full capacity of the E Block licensee. The Wilkie Auction Analysis, discussed in Part I.A above, provides a lengthy discussion of the theory of warehousing with numerous examples of ongoing spectrum

warehousing by incumbents. It makes no irrational leap to assume that the incumbents would prefer to capture the E Block license and stifle the wholesale market rather than see a vibrant wholesale market for competitors emerge, even at the additional cost of building out a national public safety system.

A report published last year by the Center for American Progress provides additional proof that incumbents have consistently manipulated the auction process to exclude potentially disruptive new entrants. Gregory Rose and Mark Lloyd, "The Failure of FCC Spectrum Auctions," (Center for American Progress, 2006) ("CAP Report") (Attachment B). A wealth of academic literature on auctions supports a similar conclusion. *See, e.g.*, Sandro Brusco and Guiseppe Lopomo, "Collusion *via* Signaling in Simultaneous Ascending Bid Auctions With Heterogenous Objects, With and Without Complimentarities," 69 Review of Economic Studies 407 (2002); Perry M. And P. Renny, "On the Failure of the Linkage Principle In Multi-Unit Auctions," 67 Econometrica 895-200 (1999) (cited in Wilkie Auction Analysis at 41).

Given this extensive academic literature, the numerous examples of warehousing compiled by Dr. Wilkie, and the 10 year review of FCC auctions in the Center for American Progress Report, the record more than adequately supports a ban on participation in the 700 MHZ auction by ILECs, incumbent cable operators, and large wireless carriers. Absent a general ban, such dominant providers of broadband and wireless services should, at the least, be excluded from bidding on the single E Block license that has the capacity to create new, disruptive providers of wireless services.

If the Commission remains determined to allow broadband and wireless incumbents to bid for the E Block license, the Commission should at least require them to do so *via* structurally separate affiliates. This way, the Commission can easily determine whether the incumbents are favoring their

own services or seeking to discriminate against unaffiliated providers. The separate affiliate requirement proved extremely effective in promoting a vibrant and competitive ISP industry until the Commission began to repeal the policy in the interest of promoting deployment of new fiber networks. While not as effective as an outright ban on participation, a separate affiliate requirement would at least provide some minimal protection to new entrants hoping to lease E Block spectrum.

For the reasons discussed above, the Commission must also take steps to ensure that the incumbents do not block new entrants by leasing the available capacity of an independent E Block provider. PISC suggest the following mechanisms:

Ideally, the Commission would prohibit wireless carriers from leasing E Block capacity within the coverage areas of their licenses, and would prohibit incumbent wireline providers from leasing E Block capacity within their franchise areas. Given the availability to these incumbents of their own wireless spectrum and fiber, it seems far more likely that any capacity leased stems from the desire to exclude competitors from a critical resource rather than commercial necessity.

If the Commission balks at such a complete prohibition, the Commission should limit the capacity that an E Block licensee can lease to such incumbents. PISC suggests that the Commission require the E Block licensee to keep at least 75% of its capacity available for non-incumbents. While incumbents could lease genuinely unused capacity, the Commission should require that non-incumbents can displace incumbent use until the 75% capacity limit is reached. Finally, in the event that public safety entities need access to the E Block spectrum, incumbent operators rather than non-incumbents should be subject to displacement first.

Finally, at the very least, the Commission should prohibit lease terms that favor incumbent traffic over non-incumbent traffic. The Commission should prohibit “option contracts” or “rights of

first refusal" that would allow incumbents to tie up capacity without using the spectrum themselves. As a general matter, the Commission should prohibit any contract that would prevent the E Block licensee from leasing available capacity. While such an arrangement might prove highly profitable to the E Block licensee, it would defeat the purpose of the E Block license of making much needed spectrum available to new entrants.

C. Nothing In The Statute Or Commission Precedent Prevents Adoption of the Frontline Proposal or the Modifications Proposed By PISC.

Nothing in the Commission's recent actions on wireless or the statutory requirement that certain frequencies be auctioned for commercial use or allocated to public safety prohibits the Commission from adopting the Frontline proposal. To the contrary, the proposal will promote the statutory goals of Sections 309(j)(3)(A)-(B) and 309(j)(4)(C)-(D).

In requiring the Commission to auction 60 MHZ of returned analog broadcast spectrum, Congress did not in any way limit the Commission's general authority to create service rules. Accordingly, the Commission has the same authority to set service rules for the licenses distributed in this auction as in any other. Similarly, Congress left to the discretion of the Commission the manner in which it was to make 24 MHZ available for public safety. It placed no limits on the Commission's discretion to fashion novel approaches – such as a public-private partnership that effectively doubles the spectrum available to public safety – that would best suit the unique characteristics of this band.

Further, as discussed above, the Frontline proposal will make spectrum more widely available, particularly to underserved rural communities and minority communities. It will encourage an even distribution of spectrum availability among the states by creating a national license, and facilitate new access to spectrum and spectrum services by women-owned and minority-owned businesses. *See*

Sections 309(j)(3)(A)-(B), 309(j)(4)(C)-(D). By contrast, as described in the Center for American Progress Report, the Commission's standard auction mechanisms have proven woefully inadequate for achieving these purposes.

Nor does the Frontline proposal contradict the Commission's recent *Declaratory Ruling* classifying wireless broadband as an information service. *In re Appropriate Regulatory Treatment for Broadband Access to the Internet Over Wireless Networks*, WT Docket No. 07-53 (rel. March 23, 2007) ("*Wireless Broadband Declaratory Ruling*"). To the contrary, the *Wireless Broadband Declaratory Ruling* explicitly stated that the reclassification did nothing to alter the Commission's Title III authority or in any way altered specific service rules the Commission adopts. *Id.* at ¶35. Adopting a specific service rule for the E Block that clearly serves the public interest presents no contradiction or departure from this policy.

Finally, as Chairman Martin and Commissioner Tate observed in the context of the AT&T/BellSouth merger, a party may voluntarily assume additional public interest obligations to secure a Commission benefit even where such action is not required by rule. *In re AT&T Inc., and Bellsouth Corporation Application for Transfer of Control*, WC Docket No. 06-74 (rel. March 26, 2007) (Joint Statement of Chairman Kevin J. Martin and Commissioner Deborah Tate). Nothing compels any party to bid for the proposed E Block license. Those wishing to maintain closed wireless networks using other spectrum are free to continue to do so. Certainly they cannot object when the Commission chooses to create an incentive to encourage the emergence of a new, neutral wireless provider and others wish to avail themselves of the option.

II. THE COMMISSION SHOULD ADOPT ANONYMOUS BIDDING, PACKAGE BIDDING, AND OTHER MECHANISMS TO ENCOURAGE COMPETITIVE ENTRY.

Prior to the AWS auction, the Wireless Bureau proposed to adopt "anonymous" bidding to limit the ability of incumbents to block new entrants and prevent collusion by signaling. Despite support for the proposal from consumer advocates, the Federal Trade Commission, and the Department of Justice, the Commission chose to adopt an industry compromise proposal which reverted to the standard open format if a sufficient number of bidders entered the auction. The number of bidders almost exactly equaled the minimum number necessary to produce the required "competition ratio," and Auction 66 operated under the Commission's standard simultaneous multiple round (SMR) rules.

The Commission's initial intuition that only anonymous bidding could prevent signaling proved correct. The Rose AWS Analysis demonstrates that incumbents used signaling behavior and otherwise acted to prevent potentially disruptive new entrants from creating a national footprint and, when potentially disruptive new entrants were eliminated, acted in concert to divide licenses among themselves at the lowest possible cost. This result is consistent with the evaluation of FCC auctions generally published by the Center for American Progress (Attachment B) and the recently submitted Wilkie Auction Analysis. It is also consistent with the analysis in support of combinatorial and "package" bidding proposal submitted by Dr. Gregory Rosston on behalf of Access Spectrum and Pegasus Spectrum. *See* Letter of Ruth Milkman and Kathleen Wallman, WT Docket No. 06-150, filed February 5, 2007 ("Rosston Proposal").

A. Anonymous Bidding Is Critical To Promoting Competitive Entry and Eliminating Collusion By Incumbents.

Accordingly, PISC strongly urges the Commission to adopt the anonymous bidding rules originally proposed by the Wireless Bureau for the AWS auction. *See* Public Notice, "Auction of

Advanced Wireless Services Licenses Scheduled for June 29, 2006," 21 FCCRcd 794 (2006). Under the proposed rules, the Commission would conceal from bidders the identity of the bidders and the non-winning bids. Bidders would see only the highest bid for a license, not associated with any other information.[3] The Commission should abandon the "eligibility ratio" compromise it ultimately adopted, *Advanced Wireless Services Auction*, 21 FCCRcd 4562 (2006), and use anonymous bidding for all licenses.

In the AWS auction, the Department of Justice Antitrust Division, the Federal Trade Commission, and a coalition of consumer groups, civil rights organizations, and others argued that the record of the last ten years of FCC auctions, the success of anonymous auctions in Europe, and the weight of academic literature favored adopting anonymous bidding to prevent collusion by incumbents. In a united effort, all wireless incumbents argued against anonymous bidding for reasons varying from the efficiency of open auctions to the need for smaller bidders to avoid "bidding wars" with larger incumbents.

In the end, the Commission adopted the "eligibility ratio compromise" proposed by T-Mobile. Under this rule, the Commission would conduct the auction under its standard open auction rules if the total number of bidding units of eligibility purchased by bidders relative to the total number of bidding units for the licenses in the auction, subject to a cap on any single bidder's eligibility of 50% of the total bidding units, equaled 3 or more. Ultimately, 168 bidders qualified, with sufficient bidding credits to create a ratio 3.04. *Public Notice, Auction of Advanced Wireless Service Licenses,* 21 FCCRcd 8585 (2006).

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[3]The Commission should capture the standard information on bidding behavior, however, to monitor the conduct of the auction. The Commission should also publish the information after the completion of the auction to facilitate independent analysis.

The presence of a sufficient number of bidders to just meet the eligibility ratio should raise eyebrows. Analysis of the bidding behavior of a number of designated entities with ties to the incumbents raise further concerns that several such DEs had no intent to seriously participate. While not proof in a legal sense, the combination of an eligibility ratio of 3.04 with the lackluster bidding by DEs with material relationships with incumbents that benefitted from using open bidding rather than anonymous bidding strongly suggests that incumbents once again "gamed the system" to achieve a competitive advantage.

The results of the auction speak for themselves. Once again, the major incumbents – this time joined by broadband cable incumbent Spectrum Co. – worked to exclude the DBS bidders and other potentially disruptive competitors that might offer broadband or wireless service on terms different than those of incumbents.

Those touting the auction as a success generally point to the emergence of regional competitors as potential national competitiors, and the entry of Spectrum Co. as a "new entrant" into the wireless market. Neither of these represents the emergence of a genuine new competitor. With regard to the regional carriers, their elevation to national prominence is unlikely to produce significant benefits for consumers, since they operate under the same closed network model and offer comparable products at comparable prices. Further, there is evidence that the larger incumbents will simply purchase any carrier with sufficient capacity to create real competition. The rumored purchase of Alltel by Verizon Wireless is a classic example of how incumbents use the auction process to exclude potentially disruptive new entrants while dividing licenses among themselves – resolving any further threat of competition through the simple expediency of buying out potential rivals later.

Nor does the strong showing of Spectrum Co. change the analysis that an open auction pro-

vided the opportunity to keep rivals away from a critical resource needed to compete in the communications marketplace. To the contrary, the ability of the largest video and residential broadband incumbents to exclude their chief video rivals from offering terrestrial wireless voice and data services proves this very point. As documented by Dr. Wilkie, Spectrum Co. has repeatedly denied plans to use the AWS spectrum in a manner that might genuinely threaten the "spectrum oligopoly" described by Wu.

Only a myopic focus on the commercial mobile radio service as the relevant "market" justifies viewing Spectrum Co. as a "new entrant" rather than exactly the sort of incumbent the Commission should exclude to promote competition. Yet this approach flatly contradicts the Commission's oft-repeated view that it depends on the emergence of new, competitive broadband platforms – particularly wireless – as a reason to deregulate all broadband platforms. If the Commission genuinely wishes to see broadband competition emerge on multiple platforms, it must broaden its horizons and consider the largest residential broadband providers, incumbent cable companies and incumbent telephone companies as "incumbents" that threaten the growth of competitive broadband rather than as potential new entrants in mobile wireless telephony.

Because of its unique properties, the 700 MHZ band offers the single greatest hope for the foreseeable future of licensed competitive terrestrial broadband. The arguments in favor of anonymous bidding by FCC staff in the initial *AWS Public Notice* – supported by public interest organizations, the Department of Justice, and the Federal Trade Commission – proved themselves in the AWS action. To the extent the "eligibility ratio" proposed by T-Mobile has merit, the ratio selected by the Commission proved too low despite the insistence of T-Mobile that an even lower ratio would have sufficed. In any event, the incumbents have demonstrated they can game the system to meet any proposed ratio, and their apparent willingness to do so should speak volumes. Rather than squander

the one chance to distribute this unique "rocket fuel" for broadband competition, the Commission should restore the anonymous bidding rules it initially proposed for the AWS auction in January 2006.

B. Package Bidding, Done Properly, Can Promote Competitive Entry.

PISC supports the Rosston Proposal to allow package and combinatorial bidding, with two proposed additional safeguards. First, the Commission should not make public the authors of proposed packages. A skilled analyst could, with such knowledge, determine the bidding strategy of the package author and develop a suitable blocking strategy. Second, the Commission must have some mechanism to screen out packages designed to block creation of a national footprint.

As discussed above, the weight of evidence from previous Commission auctions demonstrates that if the Commission intends to promote competitive entry, it must take serious steps to prevent incumbents from blocking new entrants. Creating packages for the sole purpose of blocking new entrants takes relatively little effort or resources. A relatively small number of small packages consisting of a few key licenses can prevent new entrants from acquiring a national footprint. In such a situation, incumbents intent on blocking can concentrate bids on their smaller packages, while potential new entrants must bid on a much larger number of licenses. When the ability to submit "blocking packages" is combined with open bidding, or combined with knowledge of the nature of the package and how it will integrate into a potential competitor's system, blocking becomes a trivial exercise requiring only the willingness to spend money to protect market power.

C. Other Necessary Safeguards to Promote Competitive Entry and Prevent Abuses By Incumbents.

The 700 MHz auction represents the best opportunity to introduce a new broadband provider, as well as provider of 4G mobile services. The history of spectrum auctions and subsequent delivery

of competitive services demonstrates that, absent Commission action, incumbents will win the majority of licenses and warehouse the spectrum. History also shows, however, that the Commission is reluctant to reclaim licenses for failure to meet build out requirements. In addition, efforts to reclaim licenses face legal challenges and lengthy delays before the Commission can reassign licenses to productive users. The pending *Further Notice of Proposed Rulemaking* on designated entity (DE) credits addresses some of these issues in the context of whether to permit DEs to maintain material relationships with large incumbent carriers or other entities. PISC therefore proposes that the Commission adopt the following rules to promote competitive entry to ensure that all Americans enjoy the benefit of wireless services in accordance with Section 309(j) of the Act.

1. Limits On Incumbent Participation In the Auction.

As discussed above in Part I.B, the Commission should adopt procedures it has employed in the past to encourage the entry of new competitors and prevent incumbents (whether traditional wireless services incumbents or wireline broadband incumbents) from capturing the available licenses. Ideally, the Commission should impose a full ban on bidding and ownership of 700 MHZ licenses by incumbent wireline or incumbent wireless providers. Given the documented willingness of incumbents to warehouse spectrum and buy out potential rivals, a full ban on bidding or post-auction ownership of 700 MHZ licenses by wireless or wireline incumbents provides the greatest likelihood that a new wireless broadband competitor will emerge.

Alternatively, if the Commission remains unwilling to include wireline broadband providers within the scope of the relevant market, the Commission should impose a spectrum cap prohibition. Since elimination of the general PCS spectrum cap, consolidation in the wireless industry has reduced the number of national and regional competitors to the point where a handful of national and large

regional providers control the vast majority of CMRS customers. Potential wireless competitors such as Clearwire have yet to emerge as significant players. Indeed, as Clearwire argued during the pendency of the AT&T/Bellsouth merger, warehousing of valuable spectrum by the dominant CMRS licensees outside the PCS spectrum significantly impedes the development of wireless competition in other bands. *In re Bellsouth Corporation and AT&T, Inc., Application for Transfer of Control, Petition to Deny of Clearwire, Inc.*, WT Docket No. 06-74 (filed June 5, 2006).

The unique nature of the 700 MHZ licenses and its potential for fostering wireless competition and new services justifies a service-specific spectrum cap. The Commission should prohibit any entity with more than 45 MHZ available in PCS, AWS, 2.3 GHz or 2.5 Ghz spectrum from acquiring a 700 MHZ license using rules modeled on the previous 45 MHZ CMRS cap. *See Broadband Competitive Bidding and PCS Cap*, 11 FCCRcd at 7869-7876 (describing and justifying cap). Given the success of Spectrum Co. in the AWS auction, and the integration of wireless operations into Verizon and AT&T, this prohibition will protect 700 MHZ licenses from the largest wireline broadband incumbents.

Finally, if the Commission balks at a permanent exclusion, the Commission should at least take action to prevent incumbents from blocking potential new entrants. Commission precedent exists for a one-time rule designed to enhance the likelihood that new entrants will succeed. *Revision of Rules and Policies for the Direct Broadcast Service*, 11 FCCRcd at 9720-9725 (one-time rule requiring a winner of full-CONUS DBS slot to divest its interest in all other full-CONUS licenses). As the Commission acknowledged then, the requirement that the Commission review any post-auction transactions will at least provide an opportunity for the Commission to determine if future purchase by an incumbent constitutes a danger to competition and diversity. *Id.* at 9724.

2. Rules to Address Spectrum Warehousing.

To address build out requirements, the Commission should shift to models that are self-executing rather than the all too often idle threat of revoking the license. PISC suggests that the Commission take advantage of the pending rulemaking set to authorize devices in the broadcast "white spaces," ET Docket No 04-186 ("White Spaces Proceeding").[4] The Commission may designate licenses that have failed to meet build out or service requirements as "vacant channels" accessible by such devices until the licensee completes build out and commences service. This will ensure that spectrum is used productively rather than warehoused, and provides suitable incentive for licensees to meet build out requirements after missing a deadline and securing a waiver.

Because the devices the Commission will approve in the white spaces proceeding will be designed to recognize introduction of a new licensee in the event the Commission authorizes a new television station in a vacant channel, there is no danger that use of the band will persist once the licensee meets its build out requirements. The devices operating in the license area will dynamically sense when the licensee begins operation of licensed services (either through sensing or some other means, such as beacons), eliminating any risk of interference. Nor can licensees complain that allowing unlicensed use in the band as a consequence of the Licensee's own failure to meet build out and service requirements somehow diminishes the value of the license or its expectation of exclusive use. Even were such quasi-ownership claims cognizable under the Communications act, a licensee can hardly argue that it has a right to warehouse spectrum in violation of the Commission's rules.

Alternatively, the Commission can simultaneously auction a "contingent license" with the 700

[4]This assumes the Commission chooses to permit unlicensed devices to operate in the white spaces, rather than licensing operation in the white spaces. Licensing operation in the white spaces would merely raise identical issues to those raised here.

MHz licenses. In the event that the 700 MHz licensee fails to meet its build out or service requirements, the license will automatically revert to the "contingent" licensee.[5] The threat that a license will transfer automatically if not used will provide powerful incentive for the winners of the 700 MHz auction to meet their obligations.

In both these cases, the winning bidder enters the auction knowing that a failure to build out and provide service cannot block competing use of the spectrum. Because of the self-executing nature of these remedies, licensees cannot hope to game the Commission's processes and avoid the consequences of their failure to build. This will diminish the incentive (and therefore the likelihood) or warehousing.

The Commission clearly needs to create such incentive. Despite stern language on the part of the Commission that it does not generally grant waivers of construction and service deadlines, it has repeatedly done so. Licensees know this, and rely upon it. Worse, where an entire industry decides to stonewall, the Commission is ***more*** likely to extend deadlines and grant waivers rather than face the political consequences of cancelling licenses for an entire class of incumbents. For example, the Commission recently extended the 2.3 GHz licenses of the 132 licensees, despite the failure of these licensees to build their systems over the course of ten years. *See Consolidated Request of the WCS Coalition for Limited Waiver of the Construction Deadline for 132 WCS Licenses*, 21 FCCRcd 14134 (2006). It is no coincidence that many holders of these licenses – Comcast, Verizon, Sprint Nextel, and (until divestiture) AT&T – are the same incumbents at issue here, with the same incentive to warehouse spectrum.

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[5]Commission contingent approval after the auction constitutes the necessary finding that the transfer will serve the public interest under Section 310(d). Alternatively, the Commission can employ an expedited transfer process to the "contingent licensee," if necessary.

The auction statute requires the Commission to develop effective rules against warehousing and speculation in Spectrum. 47 U.S.C. §309(j)(4)(B). The Commission has in the past relied upon the economic theory that winners at auction have an incentive to build out systems to recoup their auction revenues, and on the threat that it may revoke a license for a failure to comply with build out and service rules. Reality has proven the Commission's theory wrong and its threat hollow. An incumbent may prefer to warehouse spectrum where doing so provides a greater reward than cannibalizing its existing business model or allowing the spectrum to fall into the hands of rivals. If the Commission intends to comply with the intent of Congress and prevent spectrum warehousing, it must adopt new, self-executing mechanisms such as those suggested above.

3. Addressing The Use of Designated Entities To Block New Entrants.

Finally, to address concerns that incumbents use their relationships with DEs to block new entrants and win licenses at a substantial discount, the Commission must resolve the pending *FNPRM* and eliminate the ability of DEs to maintain material relationships with large wireline or wireless incumbents. The Commission has compiled a thorough record in this matter to justify prohibiting incumbents (either wireless or wireline) from maintaining material relationships with designated entities. The apparent use of designated entities by incumbents to artificially inflate the eligibility ratio for the AWS auction provides additional evidence for eliminating the ability of incumbents to form material relationships with DEs. Whatever public interest benefits may obtain from allowing such relationships, the demonstrated ability of incumbents to exploit these relationships for anticompetitive purposes outweighs them.

4. Restoring the Women and Minority DE Credit.

Additionally, the Commission should restore the DE credit for women and minority businesses

eliminated after the *Aderand* decision, as requested by National Hispanic Media Coalition, *et al.*, in the initial rulemaking. *See Comments of NHMC, et al.,* WT Docket No. 05-211 (filed February 24, 2006). As others have documented, auctions continue to disserve minority communities by excluding minority-owned businesses from owning needed licenses; wireless services in minority communities lag behind accordingly. *See* Leonard M. Baynes and C. Anthony Bush, "The Other Digital Divide: Disparity In the Auction of Wireless Telecommunications," 52 Cath. U. L. Rev. 351 (2003).

III THE COMMISSION SHOULD ADOPT THE BAND OPTIMIZATION PLAN, BUT NOT REVERSE AUCTIONS.

The Public Interest Spectrum Coalition generally supports the "band optimization plan" ("BOP") proposed by Access Spectrum and Pegasus Spectrum. Under this plan, these two companies will release some guardband licenses while consolidating others. The result is a net improvement in spectrum efficiency for the guardband licensees, the public safety spectrum users, the commercial licensees, and the general public. Because the guardband licensees will return licenses, the net improvement in efficiency for private licensees does not constitute an unjust windfall to the private licensees.

Further, even if the net result is to increase the value of the remaining licenses to the guardband licensees by some modest amount greater than the value of the returned licenses, the net benefits to the public of increased spectral efficiency justify adoption of the plan. While the Commission must not take its responsibility to ensure a return to the public on the use of public spectrum assets and avoid unjust enrichments lightly, calculation of what best serves the public interest does not always lend itself to neat mathematical resolution.

On the other hand, PISC opposes any attempt to permit a "reverse auction," as suggested by

some in this proceeding, even if a reverse auction would enhance overall spectral efficiency. Reverse auctions violate the plain language of Section 309(j), which requires that the Commission deposit all revenue from spectrum auctions directly into the U.S. Treasury. 47 U.S.C. §309(j)(8)(A). Nor are reverse auctions necessary to ensure spectral efficiency. Given the small number of guardband licensees, commercial winners of adjacent blocks can negotiate directly to obtain the guardband licenses after the auction.

Finally, PISC reminds the Commission that Congress has not looked kindly on attempts to end-run the requirement of Section 309(j)(8)(A), even where reverse auctions would enhance efficiency and speed the digital transition. In 2002, after the Commission proposed the equivalent of a reverse auction to clear broadcasters from the portion of the analog spectrum set for return (and at issue again here), Congress passed the Auction Reform Act of 2002 and directly prohibited the FCC's proposed reverse auction. Pub. L. 107-195. Given this clear expression of Congressional disapproval for reverse auctions, the Commission should not try to implement such a proposal again.

IV THE COMMISSION MUST BALANCE THE NEED FOR SMALLER LICENSES AGAINST THE NEED TO CREATE NEW NATIONAL COMPETITORS.

With regard to the availability of smaller licenses to promote rural access, PISC generally supports this proposal. At the same time, the Commission must not compromise the ability of new entrants to create national footprints. To the extent this requires trade offs, the Commission can alleviate spectrum shortages in rural areas by approving the Frontline proposal and ensuring the presence of a wireless wholesaler nationally.

History shows that selecting the proper license size often represents a balance of competing interests. On the one hand, many economists blame the smaller license sizes available from the first

PCS auctions for delaying national deployment and driving of rates by providing incentives to rural carriers to charge high roaming fees rather than build out service. *See* Wilkie Auction Analysis (citing sources). On the other hand, rural carriers continue to maintain that without a supply of smaller licenses, they cannot acquire sufficient spectrum to provide service to their communities.

Adopting the precautions against auction manipulation will help alleviate the problem of affordable spectrum for rural carriers. In addition, because of the nature of the spectrum, build out of a somewhat larger service will be cheaper. The physical properties of the spectrum allow service to a much wider area with a smaller number of cell sites, driving down cost significantly. In addition, approval of the Frontline proposal or other open access proposals may provide spectrum for local services more efficiently than numerous licensees. These factors speak against creating too many licenses designed for the benefit of smaller carriers.

At the same time, however, the Commission should ensure that small carriers have a sufficient number of smaller licenses that they can realistically expect to win licenses and meet build out ad service requirements. Local providers are far more likely to serve local communities. In addition, where license areas include dense population centers combined with a population thinly dispersed throughout the remainder of the license area, a real danger exists that the licensee will not serve those outside the most concentrated areas. By contrast, dividing such a region into two licenses ensures that a licensee acquiring the less densely populated region actually intends to serve that region.

Given the complex nature of this calculus, where it appears that the principle of creating sufficient number of small licenses conflicts with providing increased opportunities for a national provider, the need to introduce national level competition should take precedence.

CONCLUSION

The unique nature of the 700 MHZ licenses has prompted parties to present novel and innovative proposals to the Commission, such as the Frontline proposal and the Band Optimization Plan. Unsurprisingly, incumbents have generally responded by urging the Commission to move as swiftly as possible to an auction that would use the same rules that have served the incumbents so well in the past. The Commission must not allow the incumbents to stampede it into a hasty embrace of the *status quo*. Rather, based on the nature of the broadband and wireless markets and the history of FCC auctions to date, the Commission should adopt the bidding rule modifications and the service rule proposals set forth above.

Respectfully submitted,

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