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
Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission's Rules	)	WT Docket No. 06-169
Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band	)	PS Docket No. 06-229
Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010	)	WT Docket No. 96-86

COMMENTS OF THE COALITION FOR 4G IN AMERICA

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COMMENTS OF THE COALITION FOR 4G IN AMERICA

I. INTRODUCTION AND SUMMARY

The Coalition for 4G in America ("4G Coalition" or "Coalition?') submits these comments in response to the Further Notice of Proposed Rulemaking issued in the above-captioned proceedings.[1] The Coalition includes the following companies: The DIRECTV Group, Inc., EchoStar Satellite, L.L.C., Google Inc., Intel Corporation, Skype Communications S.A.R.L., Yahoo! Inc., and Access Spectrum, L.L.C. These companies have formed a coalition to conduct joint advocacy on 700 MHz regulatory issues in order

[1] *Service Rules for the 698-746, 747-762 and 777-792 MHz Bands*, WT Docket Nos. 06-150, *et al.*, Further Notice of Proposed Rulemaking, FCC 07-72 (rel. Apr. 27, 2007) ("*Further NPRM*").

to urge the Commission to adopt a regulatory framework that enables new technologies and promotes new entry.

Consistent with the statutory deadlines in the Digital Television Transition and Public Safety Act of 2005 ("DTV Act"),[2] the Commission should adopt Proposal 3 in the *Further NPRM*, and reconfigure the Upper 700 MHz band into one 11 MHz paired block (C Block) licensed in REAGs and one 5 MHz paired block (D Block) licensed in MEAs.[3] The Commission also should delegate authority to the Wireless Telecommunications Bureau ("WTB") to create a two-sided auction of the D and A Blocks, and permit limited combinatorial bids for a national package of the C Block licenses and a national package of the D Block licenses. Finally, to ensure prompt national deployment and service to rural areas, the Commission should adopt a "substantial service plus" performance standard for national and regional licensees. Substantial service plus would require licensees to: (1) satisfy the substantial service obligation in each EA served; (2) provide substantial service to at least 25 percent of EAs by February 2014; and (3) ensure that at least 15 percent of the initial deployment is in rural EAs. By taking these steps, the Commission will best meet the needs of public safety while promoting the use of the Upper 700 MHz band for next-generation technologies and networks.

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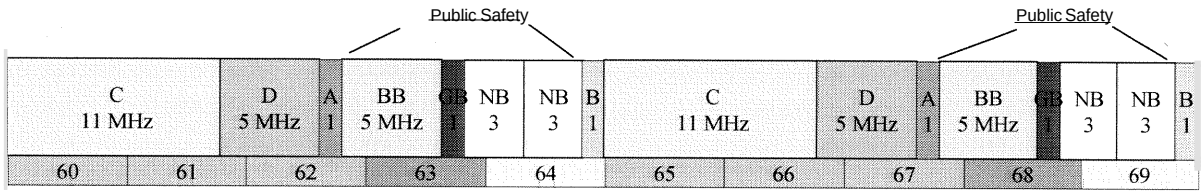
[2] Digital Television Transition and Public Safety Act of 2005, Title III (§§ 3001-3013) of the Deficit Reduction Act of 2005, Pub. L. No. 109-171, 120 Stat. 4 (2006). The DTV Act establishes a deadline of January 28,2008 for commencing the auction, June 30,2007 to deposit the auction proceeds, and February 17,2009 as the hard date by which the DTV transition must be completed.

[3] Should the FCC determine it requires smaller geographies in this block, it should reduce to EAs and not any smaller geographic size.

II. DISCUSSION

A. The Commission Should Adopt Proposal 3

The 4G Coalition supports adoption of Proposal 3 with specified geographic areas as set forth below. Promoting broadband deployment and increasing subscriber penetration is a national priority and a necessary ingredient in the continued economic well-being of the United States. In order to promote the achievement of these goals, the Commission should establish an 11 MHz paired license in REAGs, and a 5 MHz paired license in MEAs. This section discusses the advantages of larger spectrum blocks and larger geographic areas.



Block	Frequencies	Bandwdth	Pairing	Area Type	Licenses
C	746-757, 776-787	22 MHz	2 x 11 MHz	REAG	12
D	757-762, 787-792	10 MHz	2 x 5 MHz	MEA	52
A	762-763, 792-793	2 MHz	2 x 1 MHz	MEA	52
B	775-776, 805-806	2 MHz	2 x 1 MHz	MEA	52

1. Block Sizes

Advantages of Proposal 3 Spectrum Blocks. One of the principal virtues of Proposal 3 is that it enables an 11 MHz paired block, which is superior both to a 10 MHz paired block, and to two 5.5 MHz blocks, as explained below.

An 11 MHz paired block would offer greater benefits for advanced broadband technologies than would a 10 MHz pair. Those technologies with signal bands that can be adjusted to fit available spectrum benefit from the inherent advantage of larger spectrum segments, allowing them a roughly proportional increase in capacity, as well as

the ability to adjust the signal bandwidth to accommodate interference. For example, an 11 MHz pair would allow a full 10 MHz paired signal bandwidth for scalable technologies, while allowing for a 500 kHz buffer on each end to account for potential interference. Absent the additional 1 MHz, providers could be forced to reduce their capacity in some high-traffic areas in order to avoid interference.[4] The additional spectrum also could provide advantages for technologies with fixed waveforms that are not able to adjust to meet segment sizes. For example, in the cases of EvDO and the 1.25 MHz version of Flash-OFDM, the extra spectrum would allow accommodation of an extra channel, resulting in an increase in capacity.[5]

Reconfiguring the band into two 5.5 MHz pairs (as recommended in Proposals 4 and 5), while an improvement over two 5 MHz pairs, increases the "exposure risk" for an operator seeking an 11 MHz nationwide license.[6] When a bidder seeks nationwide

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[4] Further, because an 11 MHz channel has 10 percent more spectrum than a 10 MHz channel, it also could permit providers to support additional users. There are sizable fixed costs associated with building out a nationwide network, particularly where no such network exists at present. Where fixed costs are high, incremental users can make a tremendous difference in whether a service is profitable: once a provider has recovered its fixed costs, each incremental customer provides additional capital for reinvestment, potentially leading to better service, lower costs to consumers and larger, more robust networks. Therefore, an 11 MHz pair offers increased operational flexibility for new entrants, which will be starting from scratch, rather than supplementing their existing spectrum holdings.

[5] *See generally* Declaration of Paul Kolodzy, Ph.D., attached to the Comments of Access Spectrum and Pegasus Communications Corp., *et al.*, filed in WT Docket Nos. 96-98 and 06-150 (Sept. 29, 2006) ("Kolodzy Declaration").

[6] "Exposure risk" arises where an operator is willing to pay more for a national package of regional licenses, but is reluctant to bid the full value for each license for fear that it will be outbid and lose a critical license to another bidder or be forced to pay too much for licenses it does acquire. *See* Evan Kwerel and John Williams, "A Proposal for a Rapid Transition to Market Allocation of Spectrum," OPP Working Paper Series No. 38, at 14-15 (Nov. 2002) (concluding that exposure risk may cause some potential bidders to be more cautious and ultimately may lead to inefficient license assignments); *Implementation of Section 309(j) of the Communications Act – Competitive Bidding,*

coverage, "the value of a package is severely diminished by the absence of a single part."[7] If the Commission were to adopt a band plan with two 5.5 MHz pairs, instead of a single 11 MHz pair, it would increase the exposure risk for an operator seeking a national license because the cost of "blocking" would be reduced, since a bidder need only win the bid for a single 5.5 MHz pair (as opposed to an 11 MHz pair) in order to preclude the aggregation of a nationwide license.[8]

Locating the remaining 5 MHz paired block (the D Block) directly adjacent to the reconfigured 1 MHz A Block would also permit the aggregation of a 6 MHz pair, which would harmonize this block with the Lower 700 MHz allocation. In turn, the placement of this 6 MHz paired *commercial* broadband allocation directly adjacent to public safety broadband operations could help facilitate public-private partnership opportunities due to the contiguous spectrum. Moreover, the presence of two paired 6 MHz blocks in the Lower 700 MHz band plus one paired 11 MHz block and one paired 5+1 MHz block in the Upper 700 MHz band would provide considerable flexibility for multiple network operator business models.

By creating a band plan with a least one large spectrum block, the Commission would take a significant step toward enabling deployment of advanced wireless

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Second Report and Order, 9 FCC Rcd 2348, ¶¶ 98-101 (1994) *("Competitive Bidding Order").*

[7] *Competitive Bidding Order* ¶ 99; *see also Auction of Regional Narrowband PCS Licenses Scheduledfor September 24, 2003; Comment Sought on Package Bidding Procedures, Reserve Prices or Minimum Opening Bids, and Other Auction Procedures,* Public Notice, 18 FCC Rcd 6366 (2003).

[8] Therefore, as explained below, if the Commission were to adopt a band plan with two 5.5 MHz pairs (such as Proposal 4 or 5), it would be critical to implement combinatorial bidding auction rules that would permit nationwide cross-block combinations that would aggregate to block sizes greater than 10 MHz (*i.e.*, a C/D nationwide combination and a D/E nationwide combination).

broadband technologies. If the Commission were to adopt a band plan with smaller spectrum blocks, the heightened exposure risk problem would likely result in some markets with no large spectrum blocks, which might result in certain new higher bandwidth capabilities only being deployed in spots or not at all. To the extent that the Commission or other parties desire access to smaller slices of spectrum, the overall band plan for the Lower and Upper 700 MHz band already provides for smaller blocks and smaller geographic licenses. It is critical that the Commission not miss this opportunity to provide for a large paired block with large geographic licenses, to enable complete coverage with higher bandwidth services, under sustainable business plans.

Variations on Block Sizes: Proposals 4 and ***5.*** In the *Further Notice*, the Commission asked for specific comment on the effect that certain changes to Proposal 3, such as those changes implemented in Proposals 4 and 5, would have on potential new entrants, including the companies that are members of the 4G Coalition.[9] The 4G Coalition is also aware that some are concerned that the creation of a large block such as the 11 MHz channel pair in Proposal 3 would limit the Commission's flexibility and might favor certain types of bidders to the exclusion of those that are more interested in smaller blocks.

The Coalition believes a paired block of greater than 10 MHz with nationwide coverage is critical. The most straightforward means to accomplish this goal remains adoption of Proposal 3. However, in the alternative, this goal could be achieved through the Commission's adoption of Proposal 4 or 5 *if and only if* the Commission allowed for nationwide cross-block packages that would permit a bidder to combine the C and D

[9] *See Further Notice* ¶¶ *202,206*.

(CID) or the D and E (DIE) Blocks." Specifically, if the Commission were to adopt a variation of Proposal 3, such as Proposal 4 or 5, it would be essential for the Commission to provide an opportunity for bidders to acquire more than 10 MHz paired of spectrum with nationwide coverage by using "cross-block" nationwide packages under Proposal 4 or 5 (*i*.e., by permitting licensees to bid on either the C/D or the DIE cross-blocks, as nationwide packages).[11]

The adoption of Proposal 4 or 5, even with nationwide cross-block packages (C/D and DIE), would create some exposure risk (as previously discussed) for a bidder that would like to acquire a license larger than 10 MHz paired with nationwide coverage. On the other hand, use of Proposal 4 or 5 with cross-block packages would allow for more blocks, more flexibility, and two combinations that create greater-than-10 MHz blocks with nationwide coverage.[12]

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[10] See *infra*, Section II.B, for a discussion of a method for comparing the different combinations of the C, D, and E Blocks if the Commission were to implement combinatorial bidding with cross-block packages under Proposal 4 or 5.

[11] Cross-block packages at the regional or local level create substantial complexity. However, cross-block packages limited exclusively to the nationwide level can be easily accommodated and the winning bidders can be determined without complicated algorithms. See Comments of Paul Milgrom and Karen Wrege, WT Docket No. 06-150 (Sept. 20,2006); Report of Dr. Gregory L. Rosston, "Implementing Package Bidding in the 700 MHz Band to Improve Consumer Welfare," attached to Letter from Ruth Milkman, Counsel to Access Spectrum, LLC, and Kathleen Wallman, Adviser to Pegasus Communications Corp., to Marlene H. Dortch, FCC, WT Docket No. 06-150 (Feb. 5, 2007).

[12] In the event an operator wished to work in conjunction with public safety to develop a viable public-private partnership, that operator could bid to acquire the D Block in conjunction with the E Block, thereby increasing the likelihood that the licensee could develop a viable commercial operation while also meeting public safety's needs.

2. Geographic Service Areas

It is also critical that the Cornmission license some spectrum blocks in larger geographic areas to facilitate regional or nationwide service plans, and the only place left to do that is the Upper 700 MHz band. Although the Lower 700 MHz band will include a mix of geographic service areas, the proposal in the *Further NPRM* does not include any spectrum licensed on a REAG or nationwide basis. Indeed, it is designed to favor the preferences of small and rural providers seeking small geographic service areas.[13] To be sure, small and rural providers play an integral role in making broadband services available. But, carriers with business plans to cover larger geographic service areas will be essential to achieving a nationwide wireless broadband goal. Therefore, the Commission must license spectrum in the Upper 700 MHz band across large geographic service areas to complete the mix that will best assure availability of wireless broadband services nationwide.

B. Use of REAGs and MEAs with Limited Combinatorial Bidding Will Promote New Entry

In order to enable the widest range of business plans, the FCC should license the C Block (composed of an 11 MHz pair) on a REAG basis and the D Block (composed of a 5 MHz pair) on an MEA basis and adopt auction procedures that permit limited combinatorial bidding. The use of limited combinatorial bidding for Upper 700 MHz licenses and the proposed geographic area licensing scheme would facilitate more

[13] *See Further Notice* ¶ 21 ("many commenters in the Lower 700 MHz Band proceeding, including small and rural providers, favored small geographic areas, including CMAs. In light of this interest in small areas, the Commission decided to assign the 12-megahertz C Block over CMAs. . . . The Commission concluded that such a policy would afford meaningful opportunities to small and rural wireless providers." (footnote omitted)).

efficient geographic and bandwidth aggregation, which would allow bidders to sum easily to nationwide licenses, as discussed below.

Cobbling together lots of small license areas is expensive and difficult, and opens an operator up to the exposure problem discussed above: namely, the risk that the bidder might not be able to acquire licenses in critical areas, thereby undermining nationwide service plans and business model dependencies. Larger geographic licensing areas in conjunction with limited combinatorial bidding would remedy many of these problems. First, it would be easier for providers to aggregate licenses with large geographic areas to enable nationwide business plans. Second, combinatorial bidding would reduce the exposure risk by allowing a bidder to bid for a package of licenses without the risk that it would be left a winner in some areas but not in others. Third, it would limit the costs of aggregating licenses through private negotiations, which would be inefficient, time-consuming, and wasteful of resources that could otherwise be devoted to network deployment. Indeed, in establishing the previous auction rules for Auction No. 31, the WTB concluded that the structure of the auction for the Upper 700 MHz band should be a simultaneous multiple-round auction with combinatorial bidding.[14]

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[14] *Auction of Licenses in the 747-762 and 777-792 MHz Bands Scheduled for June 19, 2002; Further Modification of Package Bidding and Other Procedures for Auction No. 31*, Public Notice, 17 FCC Rcd 5140 (2002); *see also Auction of Licenses in the 747-762 and 777-792 MHz Bands Scheduled for September 6, 2000; Procedures Implementing Package Bidding for Auction No. 31; Bidder Seminar Scheduled for July 24, 2000*, Public Notice, 15 FCC Rcd 11526 (2000) ("The specific procedures we establish are designed to meet a number of objectives. They are designed to be efficient, and to avoid both *exposure problems* – the risk of bidders winning licenses they do not desire – and *threshold problems* – the difficulty that multiple bidders desiring the single licenses (or smaller packages) that constitute a larger package may have in outbidding a single bidder bidding for the larger package.") (emphasis in original); *id.* ("[W]e believe that package bidding will allow bidders in this auction to take advantage of any synergies

One of the issues with combinatorial bidding, however, is the potential for increasing complexity as the number of licenses increases. In order to obtain most of the benefits of combinatorial bidding without undue complexity, the Coalition recommends that the FCC specify the number of allowable packages in advance of the auction. The Coalition recommends that the FCC allow a national package for the paired blocks in the Upper 700 MHz band, with particular emphasis on the blocks that are larger than 10 MHz. The Coalition has expressed its preferences on the various ways of achieving that previously.

By limiting the number of allowable packages, interested parties would be able to perform the necessary calculations with a paper and pencil – they would not need complex computer programs. For example, for the C Block, the FCC would compare the sum of the individual REAG bids to the highest nationwide bid for the block to determine the overall highest bid for the C Block. For the D Block, the FCC would compare the sum of the individual MEA bids to the highest nationwide bid for the block to determine the overall highest bid for the D Block.

For the reasons discussed above, the 4G Coalition prefers Proposal 3 to the other alternatives proposed for the Upper 700 MHz band. However, to the extent the FCC divides the 11 MHz pair into two 5.5 MHz pairs, as set forth in Proposals 4 and 5, the FCC should allow combinatorial bidding for a national package for each of the C, D, and E Blocks, as well as nationwide cross-block packages for the C/D and the D/E Blocks (regardless of the underlying geographic licensing areas).

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that exist among licenses and will lead to the most efficient outcome consistent with our objectives under Section 309(j) of the Communications Act of 1934.”).

Although more complicated than Proposal 3, the winner of an auction conducted under Proposal 4 could still be determined with a pencil and paper. Specifically, for both the C and D Blocks, the FCC would compare the sum of the individual REAG bids to the highest nationwide bid to determine the overall highest bid for each block. For the E Block, the FCC would compare the sum of the individual EA bids to the highest nationwide bid to determine the overall highest bid for the E Block. The FCC would then need to compare the highest bids for the following three possible combinations in order to determine the overall winners: (1) the sum of the overall highest bids for each of the C, D and E Blocks; (2) the sum of the overall highest bids for the C/D cross-block plus the E Block; and (3) the sum of the overall highest bids for the D/E cross-block plus the C Block. To the extent that the highest total bid occurs under option (1), then each of the underlying winners of the C, D and E Blocks would win overall, and there would be no cross-block winner. If the highest total bid occurs under option (2), the underlying winners of the C/D cross-block and E Block would win overall. Similarly, if option (3) generated the highest total bid, then the underlying winners of the D/E cross-block and C Block would win overall.

By constraining the number of packages in this manner, the Commission would promote new entry via a range of business plans. Limited combinatorial bidding also would provide added flexibility to the auction structure so that the structure does not predetermine the auction winners. If smaller geographic areas are more valuable, the sum of the smaller bids will exceed that of the larger bids. If larger areas are more valuable, then the bidding packages will win. Either way, the public benefits from more competition, from greater auction revenues and from giving new entrants and nationwide

bidders a chance to succeed. Moreover, the Cornmission has proposed licensing three paired 6 MHz blocks in the Lower 700 MHz on the basis of EAs and CMAs. These smaller geographic licensing areas, in conjunction with the use of REAGs and MEAs for the paired blocks in the Upper 700 MHz band, will provide a balanced mix of geographic sizes.

C. The Commission Should Adopt Performance Measurements that Facilitate Prompt Network Deployment and Reflect Inherent Characteristics of New National Entrants

The Commission should adopt build-out requirements that ensure critical spectrum resources are made available to consumers nationwide in an expedited manner. In doing so, it should avoid overly prescriptive requirements that would have the inadvertent effect of reducing the incentive and ability of new entrants to provide a robust nationwide third broadband service.

The "substantial service" standard – and corresponding safe harbors – should be re-adopted for the 700 MHz auction. Commenters have offered no empirical data to support a deviation from this approach, which has been incorporated successfully in all recent wireless auctions. Indeed, substantial service was adopted for this specific spectrum in both the *Upper 700 MHz First Report and Order* and *Lower 700 MHz Report and Order*.[15] Nonetheless, consistent with the stated desires of rural interests to facilitate prompt deployment, the Coalition proposes additional incremental milestone obligations described herein beyond substantial service – in effect "substantial service plus" – for regional and nationwide license holders to ensure that both urban and rural consumers benefit from new 700 MHz services. The Commission should, however, avoid the

[15] *See Further NPRM* ¶ *207*.

adoption of any additional rigid metrics that are not grounded in commercially feasible business models, and should exempt new entrants from any extra build-out requirements given their distinct incentive structure and operational challenges.

1. Substantial Service is the Most Appropriate and Flexible Build-Out Framework to Facilitate New and Innovative Service Offerings

The substantial service standard has developed into the Cornmission's default performance metric for advanced wireless services, including AWS, BRS, and WCS spectrum.[16] The Commission has concluded repeatedly that the "substantial service requirement will provide licensees greater flexibility to determine how best to implement their business plans based on criteria demonstrating actual service to end users."[17] The need "to accommodate the new and innovative services" underlies the Commission's continued reliance on substantial service.[18] More recently, the Commission reiterated that "establishing a substantial service standard with safe harbors will ensure prompt

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[16] *See, e.g.,* 47 C.F.R. § 27.14. A compelling case could be made that no regulatory obligations are necessary given the billions of dollars a regional or national 700 MHz footprint will likely cost at auction. It is, therefore, not apparent that additional regulatory-based incentives to deploy services in an expedited fashion are necessary given the clear financial incentives of new entrants to deploy service wherever feasible. *See, e.g., Amendment of Part 90 of the Commission's Rules to Provide for the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service,* Third Report and Order; Fifth Notice of Proposed Rulemaking, 12 FCC Rcd 10943, ¶ 199 (1997) (explaining that "auctions provide incentives for more efficient use of the spectrum").

[17] *Service Rules for Advanced Wireless Services in the 1.7 and 2.1 GHz Bands,* Report and Order, 18 FCC Rcd 25162, ¶ 75 (2003) *("AWS-1 Report and Order");see also Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 MHz and 2500-2690 MHz Bands,* Order on Reconsideration and Fifth Memorandum Opinion and Order and Third Memorandum Opinion and Order and Second Report and Order, 21 FCC Rcd 5606, ¶¶ 1-2 (2006) *("BRS Order")* (adopting substantial service for BRS licensees as the appropriate performance measurement to "facilitate the development of wireless broadband systems.").

[18] *AWS-1 Report and Order ¶ 75.*

delivery of service to rural areas, . . . prevent stockpiling or warehousing of spectrum by licensees or permittees, and . . . promote investment in and rapid deployment of new technologies and services."[19]

Commenters have not demonstrated that the substantial service standard has proven inadequate, or that those clear policy findings were misguided. Rather, RCA offers a radically different proposal: 25 percent geographic coverage within 3 years; 50 percent geographic coverage with 5 years; and 75 percent geographic coverage area within eight years.[20] Tellingly, this proposal is not based on any previously-adopted build-out requirement, nor is it grounded in the actual or planned network build-out of a single national or regional service provider.[21] While such proposals may appear on their face to be aggressive but reasonable, they do not withstand scrutiny. Specifically, RCA's proposal would mandate that a national new entrant design and construct a national infrastructure network; arrange for community-by-community tower sitings and rights-of-way; design, develop and manufacture customer equipment; develop and implement a marketing and sales strategy; and hire and train technicians and customer service representatives for a quarter of the country in a thirty-six month period.

Further complicating initial build-out efforts is the need to ensure that the technology, equipment and software are fully tested and available, which is particularly

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[19] *AT&T Inc. and BellSouth Corporation Application for Transfer of Control*, Memorandum Opinion and Order, 22 FCC Rcd 5662, ¶ 182 (2007) (FCC 06-189) (quoting *BRS Order*, ¶ 278).

[20] Comments of Rural Cellular Association, WT Docket No. 06-150, at 8-9 (Sept. 29,2006).

[21] The Commission has proposed an additional complexity – *i.e.,* licensees be required to meet this obligation on a granular EA-by-EA basis rather than across all license holdings – that increases significantly the difficulty of meeting such a requirement. *Further NPRM* ¶ 217.

challenging for entities seeking to invest and deploy cutting-edge 4G technology. Developing a consensus among service providers, technology companies and equipment manufacturers regarding a service standard for the 700 MHz spectrum will require a significant period, and such industry efforts will likely not be initiated in earnest for some time. Moreover, even after the development of a common technology standard, the technological and development stage for actual network and subscriber equipment will take 18-36 months at a minimum. The next necessary step would be limited field trials, which would require at least 6-12 additional months. Such trials are critical to understanding the interactions with existing high power broadcast systems in neighboring frequencies, the effects of 700 MHz propagation, Guard Intervals, and Doppler effects. Thus, assuming the most aggressive planning and development assumptions and no significant operational and technological setbacks, the licensee would not be positioned to initiate commercial deployment until the two-year mark, assuming the existence of a design standard by the 2009 transition date. Network deployment to a quarter of the country in every EA in that remaining twelve month period to meet RCA's milestone would be unprecedented and commercially unreasonable. Thus, RCA-like obligations and timelines would dissuade, if not outright foreclose, a nationwide new entrant business plan.[22]

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[22] Nor should the Commission include a "use or lose" component in any performance metric. Use or lose ignores the fact that a build-out plan, particularly for a new nationwide entrant, necessitates build-out in stages over a number of years necessitating substantial capital expenditure outlays. Artificially increasing the geographic area reached in each build-out stage or compressing those stages greatly complicates network design and financing. A new nationwide entrant faces significant operational hurdles to compete against multiple entrenched providers: the necessary flexibility to evolve and react to competitive and technological developments is critical. A use or lose obligation additionally disregards the fact that entities seeking a truly

The Commission has rejected similarly prescriptive geographic and/or population-based proposals, finding correctly that "construction benchmarks focusing solely on population served or geography covered may not necessarily reflect the most important underlying goal of ensuring public access to quality, widespread service."[23] In fact, restrictive obligations may encourage wasteful deployment of facilities "solely to meet regulatory requirements rather than market conditions."[24] Further, contrary to the intent of proponents of more restrictive build-out obligations, the Commission concluded that such demands may "unintentionally discourage construction in rural areas."[25] In particular, the use of a geographic-based metric is a poor vehicle to ensure that the maximum number of potential subscribers is reached. The Commission should, therefore, affirm its finding that satisfaction of "construction requirements by providing

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national footprint have a business plan that contemplates national marketing and a service that complements a pre-existing national offering. The substantial risk of losing chunks of that national footprint in 3, 5, or 10 years would have a chilling effect on such entities. In this regard, it would be regrettable if the 700 MHz service rules would undo the efforts of the 700 MHz auction rules to facilitate a nationwide bidding strategy. Moreover, a use or lose system would have perverse effects on the secondary spectrum markets. Entities seeking to use a portion of a national or regional licensee's footprint on a permanent or temporary basis would have an incentive to delay entering into a commercial arrangement to use the spectrum immediately because of the potential for acquiring the desired spectrum at a discount if it is ultimately reclaimed in subsequent years. The Commission's rules should encourage prompt deployment across the board, and the market-based secondary licensing approach offers the best vehicle by which to ensure that all valuable spectrum is fully utilized.

[23] *BRS Order* ¶ 276.

[24] *Id.* ¶ 277; *see also Facilitating the Provision of Spectrum-Based Services to Rural Areas and Promoting Opportunities for Rural Telephone Companies to Provide Spectrum-Based Services*, Report and Order and Further Notice of Proposed Rulemaking, 19 FCC Rcd 19078, ¶ 76 (2004) *("Rural Spectrum Order").*

[25] *Rural Spectrum Order* ¶ 74.

Substantial service will increase [licensees'] flexibility to develop rural-focused business plans and deploy spectrum-based services in more sparsely populated areas."[26]

2. Targeted Benchmarks for National and Regional Providers Can Ensure 700 MHz Services Are Deployed in an Efficient Manner

The Coalition agrees with the objective of rural entities to ensure the rapid deployment of 700 MHz services, but maintains that Substantial service, with corresponding safe harbors, is a more effective means to ensure the ubiquitous build-out of 700 MHz spectrum, particularly by new entrants. Nonetheless, in light of the apparent concern that national and regional operators will not sufficiently deploy in rural and underserved communities,[27] the Coalition offers additional milestone obligations for any provider that acquires a REAG or national footprint in the 700 MHz auction. The lack of similar concerns for EA or CMA licensees suggests that no similar additional requirements beyond Substantial service are warranted for smaller licensees.

The Coalition proposes two additional requirements for this Substantial service plus standard. First, a national or regional licensee should be required to comply with Substantial service on an EA-by-EA basis as proposed by the Commission, which will ensure that build-out occurs in a timely fashion throughout the country.[28] This is critical to ensure that all licensees in an EA have a clear incentive to deploy services in each community, and that services are not limited to the nation's largest metropolitan areas.

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[26] *Id.* ¶ 76.

[27] It should be noted that among the Coalition members, DBS providers are currently national providers that serve many rural communities not served by traditional video providers. Given this pre-existing rural focus, the DBS industry has a distinctly different incentive structure to serve rural communities than that of traditional national and regional providers.

[28] *Further NPRM* ¶ 217.

Second, the Commission should adopt the incremental build-out concept from RCA's proposal to ensure that 700 MHz deployment is not delayed until the end of the license term. Regional and national licensees should be required to satisfy its substantial service obligation in 25 percent of EAs covered by their footprint within 5 years of the transition date, February 2014, and 100 percent of EAs by February 2019. By frontloading a large percentage of the build-out requirements, the Commission can ensure that 700 MHz services are deployed more rapidly by larger national and regional licensees. Similarly, in order to ensure rural deployment, licensees should be required to deploy service in rural EAs during this initial phase. Specifically, the Coalition proposes that at least 15 percent of the EAs served at the five-year milestone be classified as rural.[29]

These additional incremental obligations of national and regional licensees should provide the direct incentives to both deploy 700 MHz services in expedited fashion and serve both urban and rural communities without undermining significantly a market-based implementation schedule to deliver a national third broadband pipe. More invasive regulatory requirements could have a substantial harmful effect on the ability of a new entrant to compete with entrenched wireline and wireless providers.

3. Build-Out Requirements Should Reflect Competitive Effects on New Nationwide Entrants

The Commission has recently concluded that unreasonable or overly restrictive build-out requirements have a deleterious effect on the competitive viability of new

[29] Consistent with its definition of rural in the *Rural Spectrum Order*, the Commission should define "rural EA" as a EA with a population density of 100 persons per square mile or less, based on the most recent Census data. *Rural Spectrum Order* ¶ 79.

entrants. In the franchise reform proceeding, the Commission explained that "build-out requirements in many cases may constitute unreasonable barriers to entry . . . for facilities-based competitors."[30] Specifically, restrictive build-out requirements "harm[] consumers and competition" by increasing artificially the costs of new entrants.[31] The Commission corroborates that restrictive build-out demands can deter new competitive entry altogether.[32] The Phoenix Center concurs: "build-out mandates are actually counter-productive and serve primarily to deter new entry, increase the profits of incumbents, and harm consumers."[33] The same subset of concerns and challenges affecting new video competitors are present with equal force in the broadband and wireless arenas.

Moreover, from a competitive parity perspective, it would be problematic to impose stricter build-out standards on 700 MHz that are not applicable to comparable wireless services, including AWS. The Commission has explained that it "would seem unreasonable, absent other factors, to require more of a new entrant than an incumbent [provider] by . . . requiring the new entrant to build out its facilities in a shorter period of time than that originally afforded to the incumbent [provider], or requiring the new entrant to build out and provide service to areas of lower density than those that the

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[30] *Implementation of Section 621(a)(1) of the Cable Communications Policy Act of 1984 as amended by the Cable Television Consumer Protection and Competition Act of 1992*, Report and Order and Further Notice of Proposed Rulemaking, 22 FCC Rcd 5101, ¶ 82 (2007) (FCC 06-180) *("Franchise Reform Order").*

[31] *Id.* ¶ 36.

[32] *Id.* ¶¶ 37, 88 ("build-out requirements make entry so expensive that the prospective competitive provider withdraws . . . and simply declines to serve any portion of the community.").

[33] George S. Ford, Thomas M. Koutsky and Lawrence J. Spiwak, *The Consumer Welfare Cost of Cable "Build-out" Rules*, Phoenix Center Policy Paper No. 22, at 1 (Jan. 2007), *available at:* <http://www.phoenix-center.org/pcpp/PCPP22_Third_Release.pdf>.

incumbent [provider] is required to build out to and serve."[34] The Commission also has highlighted the need to "stabilize the regulatory treatment of similar spectrum-based services by creating regulatory parity between these services and other wireless services?? with respect to performance measurements.[35] If the Commission were to move forward with RCA's proposal, the Commission should exempt new nationwide entrants from any additional obligations beyond substantial service,[36] or, at a minimum, provide new entrants with more flexible requirements. An aggressive build-out schedule for an incumbent wireless operator with pre-existing infrastructure and a new nationwide entrant are not interchangeable: new entrants' lack of an existing subscriber base and infrastructure should be reflected in any additional requirements.

D. The Coalition Supports the Use of a Two-sided Auction for the D and A Blocks

In order to facilitate aggregation of a 6 MHz paired block by a single licensee, the Commission should delegate to the WTB the authority to implement a two-sided auction for the D and A Blocks under Proposal 3 (or the E and A Blocks under Proposals 4 and

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[34] *Franchise Reform Order* ¶ 89.

[35] *BRS Order* ¶ 279. This need for parity among competing wireless platforms suggests that a broader rulemaking proceeding would be appropriate if the Commission were to conclude that substantial service was an insufficient requirement universally. *See Rural Spectrum Order* ¶¶ *75-76* (adopting substantial service as a standard in additional wireless services to ensure parity among wireless services after global examination of best means to encourage rural wireless deployment).

[36] Build-out requirements are premised, in part, on the need to ensure that licensees invest and deploy facilities and do not warehouse spectrum. This concern may apply to wireless and wireline broadband providers that could have a competitive interest in warehousing spectrum or preventing new competitive entry to protect market share. It could also apply to entities seeking a speculative strategy to acquire spectrum critical to another entity's business strategy. Such concerns are notably absent for new nationwide entrants that need an immediate return on their spectrum investment, and have no incentive to act as warehousers or speculators.

5), including the two-sided option variant proposed in the comments being filed today by Access Spectrum and Pegasus Communications. Among other advantages, 6 MHz pairs provide 20 percent more capacity than 5 MHz pairs. As a result, it is likely that bidders for the 5 MHz paired D Block will have an interest in acquiring licenses for the adjacent 1 MHz paired A Block spectrum in order to aggregate this spectrum into a single 6 MHz pair. As the Commission has recognized in other contexts, although it is possible that D Block licensees could attempt to aggregate a 6 MHz pair by entering into secondary market transactions on a piecemeal basis, this method of aggregation is less efficient than a two-sided auction.[37] Such inefficiencies are particularly onerous where, as here, providers are interested in deploying a nationwide footprint.

By implementing a two-sided auction, the Commission can bypass these inefficiencies and speed broadband deployment. Moreover, enabling 6 MHz paired blocks in the Upper 700 MHz band would harmonize with the 6 MHz paired blocks proposed for the Lower 700 MHz band, and allow for partnerships with other providers that use 5.5 MHz blocks, such as 2.5 GHz operators. The Commission accordingly should delegate authority to the WTB to implement a two-sided auction.

E. The FCC Should Reject Proposals 1 and 2 Because They Create New Burdens for Both Public Safety and Commercial Operators

As a precondition to consolidating public safety narrowband spectrum, Public Safety requires a band plan solution that resolves interoperability issues along the

[37] *Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands*, Notice of Proposed Rule Malting and Memorandum Opinion and Order, 18 FCC Rcd 6722, ¶ 241 (2003) (discussing the benefits of using a two-sided auction for ITFS and MDS spectrum).

Canadian border, and covers the expenses of re-programming existing 700 MHz systems and updating the Computer Assisted Pre-Coordination Resource and Database System ("CAPRAD") software database.[38] Proposals 1 and 2 are at best a laborious and uncertain means to achieve these goals, particularly in comparison to Proposal 3, which resolves all issues up front. Proposals 1 and 2 do not provide nationwide interoperability along the international borders, because they isolate, via the 1 MHz shift, the public safety agencies in border regions from their counterparts in other parts of the country (the border region interoperability channels would operate on spectrum devoted to internal guard bands for public safety agencies in the rest of the country). In addition, these proposals include a "temporary?'spectrum easement that reallocates 1 MHz (paired) of the commercial licensee's spectrum to public safety, which appears to be neither temporary nor lawful. Given the absence of definite plans or time lines for television broadcasters in Mexico to vacate TV channels 64 and 69, the duration of this easement would be unknown to the commercial bidder, which would directly impact deployment and service plans. The reallocation of commercial spectrum to Public Safety, regardless of being temporary, would meet the same legal authority challenges that contributed to the Commission's refusal to adopt the Broadband Optimization Plan. Finally, neither Proposal 1 nor 2 has quantified or resolved the funding for public safety radio and database reprogramming made necessary by reconfiguring the public safety band. These numerous fundamental shortcomings with respect to Proposals 1 and 2 are significant, especially in comparison with Proposal 3, which has already resolved these issues. The Commission should reject Proposals 1 and 2 on those grounds.

[38] *See, e.g.,* Comments of the National Public Safety Telecommunications Council, WT Docket Nos. 06-169 and 96-86, at 7-9 (Oct. 23,2006).

Proposals 1 and 2 create additional uncertainties and burdens for commercial operations. These proposals to "grandfather" existing Guard Band B Block licenses would reduce the commercial D/E Block to 4 MHz paired over a portion of some but not all of the REAGs contemplated for these proposals (approximately 15 percent of the nation). Aside from the reduction in bandwidth capabilities over a portion of a REAG licenses, it would limit the technology choice to those technologies that can adjust to either 4 or 6 MHz channel sizes, and would fragment the available service offerings for the service provider. In summary, the grandfathering proposal would severely reduce the attractiveness of the D/E Block to potential bidders, particularly those with nationwide entry plans.[39]

[39] *See Further NPRM* ¶ 186.

III. CONCLUSION

The undersigned members of the Coalition for 4G in America urge the Commission to take action consistent with the recommendations described above.

Sincerely,

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Certificate of Service

I hereby certify that on this 23rd day of May, 2007, I caused a true and correct copy of the foregoing Comments of the Coalition for 4G in America to be mailed by electronic mail to:

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