

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)	
)	
Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions)	GN Docket No. 12-268
)	
Amendment of the Commission's Rules with Regard to Commercial Operations in the 1695-1710 MHz, 1755-1780 MHz, and 2155-2180 MHz Bands)	GN Docket No. 13-185
)	

COMMENTS OF UNITED STATES CELLULAR CORPORATION

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United States Cellular Corporation (“USCC”) submits these comments in response to the Public Notice released December 11, 2013 in the above-captioned proceedings.¹ Through the Public Notice, the Wireless Telecommunications Bureau seeks comment on the optimal geographic licensing approach for the 600 MHz and AWS-3 spectrum bands, and asks whether bidders should be permitted to submit package bids in the upcoming auctions for these spectrum bands. USCC continues to strongly support licensing both spectrum bands on the basis of Cellular Market Areas (“CMAs”), and to strongly oppose any form of package bidding in either auction. As detailed below, these actions are necessary to ensure that the auctions provide reasonable opportunities for small and regional carriers to acquire licenses. Without the participation of these carriers, there will be a continued lack of adequate competition in the wireless industry and reduced network deployments in rural and other underserved areas in contravention of the Commission’s policies and statutory obligations.²

¹ *Wireless Telecommunications Bureau Seeks Comment on a Proposal to License the 600 MHz Band Using “Partial Economic Areas,”* Public Notice, GN Docket Nos. 12-268 & 13-185, DA 13-2351 (WTB Dec. 11, 2013).

² *See Promoting Interoperability in the 700 MHz Commercial Spectrum*, Notice of Proposed Rulemaking, 27 FCC Rcd 3521, 3521 (2012) (“The Communications Act directs the Commission to ... protect and promote vibrant

I. INTRODUCTION AND SUMMARY

As the Commission previously stressed, the “many benefits to the public demonstrate the necessity of ensuring that robust and affordable broadband is available to all Americans.”³ For instance, the Obama Administration has noted that “[f]ew technological developments hold as much potential to enhance America’s economic competitiveness, create jobs, and improve the quality of our lives as wireless high-speed access to the Internet.”⁴ Similarly, the Commission has explained that “broadband is a foundation for economic growth, job creation, global competitiveness and a better way of life.”⁵ Unfortunately, an unacceptable number of Americans continue to lack access to broadband services, and thus continue to be deprived of the vast opportunities made possible by such services.⁶ In particular, “broadband service in rural America is generally inadequate.”⁷ Moreover, even where rural residents have some broadband

competition in the marketplace.”); *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, 19081 (2004) (“*Facilitating Rural Services R&O*”) (“One of the Commission’s primary statutory obligations, as well as one of its principal public policy objectives, is to facilitate the widespread deployment of facilities-based communications services to all Americans, including those doing business in, residing in, or visiting rural areas.”).

³ FCC, *Bringing Broadband to Rural America: Report on a Rural Broadband Strategy*, GN Docket No. 09-29 (May 22, 2009), attached to *Rural Broadband Report Published in FCC Record*, Public Notice, 24 FCC Rcd 12791, 12805 (2009) (“*Rural Broadband Report*”); see *Connect America Fund*, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663, 17684 (2011) (“*Connect America Fund R&O*”) (“The principle that all Americans should have access to communications services has been at the core of the Commission’s mandate since its founding.”); FCC, *Bringing Broadband to Rural America: Update to Report on a Rural Broadband Strategy*, GN Docket No. 11-16 (June 17, 2011), attached to *Chairman Genachowski Releases Update to 2009 Rural Broadband Report*, Public Notice, 26 FCC Rcd 8680, 8712 (2011) (“*Update to Rural Broadband Report*”) (Statement of Chairman Genachowski) (“[B]roadband is no longer a luxury, it is an increasingly vital necessity for full participation in our society and economy.”).

⁴ Memorandum for the Heads of Executive Departments and Agencies, *Unleashing the Wireless Broadband Revolution*, 75 Fed. Reg. 38387 (2010).

⁵ FCC, *Connecting America: The National Broadband Plan*, p. xi (rel. Mar. 16, 2010) (“*Broadband Plan*”); see *Joint Statement on Broadband*, 25 FCC Rcd 3420, 3421 (2010) (“Ubiquitous and affordable broadband can unlock vast new opportunities for Americans, in communities large and small...”).

⁶ See *Broadband Plan* at 129 (“[P]eople will not experience the promised benefits of broadband – increased earning potential, enhanced connections with friends and family, improved health and a superior education – without a connection.”).

⁷ *Rural Broadband Report*, 24 FCC Rcd at 12806; see *Broadband Plan* at 22 (“[M]ost areas without mobile broadband coverage are in rural or remote areas.”); *Update to Rural Broadband Report*, 26 FCC Rcd at 8688 (“72.5 percent of the 26.2 million Americans that still lack access to 3 Mbps/768 kbps or faster fixed broadband services are in rural areas, even though only 21.7 percent of all Americans reside in rural areas.”).

access, they often lack the competitive benefits that arise from multiple service providers,⁸ or they only have access to slower broadband speeds.⁹

The Commission also has noted the substantial public interest benefits that arise from robust competition amongst broadband service providers. For instance, the Commission has explained that competition is “critical to ensure vitality and innovation in the broadband ecosystem and to encourage new products and services that benefit American consumers and businesses of every size.”¹⁰ Robust competition amongst broadband service providers also leads to “lower prices for such services, which [] result in direct consumer surplus as well as greater utilization of broadband data services.”¹¹ Many Americans, however, cannot realize these benefits of competition due to the excessive concentration that has developed in the wireless industry over the last decade.¹² As a result, in its most recent Wireless Competition Report, the

⁸ See *Promoting Interoperability in the 700 MHz Commercial Spectrum*, Report and Order and Order of Proposed Modification, 28 FCC Rcd 15122, 15146 (2013) (“More than one-third of the population in rural areas still lacks coverage from more than two mobile broadband service providers.”); *Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, Fifteenth Report, 26 FCC Rcd 9664, 9881 (2011) (“*Fifteenth Competition Report*”) (“While 82 percent of the total U.S. population lives in census blocks with coverage by three or more mobile broadband providers, this is true for only 38 percent of the rural population.”).

⁹ See NTIA, *Broadband Availability Beyond the Rural/Urban Divide*, *Broadband Brief No. 2*, p. 5 (May 2013) (“[O]nly 15 percent of rural residents had wireless download speeds of 10 Mbps or greater available, compared to 70 percent of urban residents.”).

¹⁰ *Joint Statement on Broadband*, 25 FCC Rcd at 3420.

¹¹ *Reexamination of Roaming Obligations of Commercial Mobile Radio Service Providers and Other Providers of Mobile Data Service*, Second Report and Order, 26 FCC Rcd 5411, 5428 (2011); see *Broadband Plan* at 168 (“When prompted for the main reason they do not have broadband, 36% of non-adopters cite cost.”).

¹² See Reply Comments of Cellular South, Inc., GN Docket No. 12-268, p. 4 (Mar. 12, 2013) (“Cellular South Incentive Auction Reply”) (“[T]he industry is heavily consolidated today.”); Reply Comments of King Street Wireless, L.P., GN Docket No. 12-268, p. 2 (Jan. 25, 2013) (“King Street Incentive Auction Reply”) (“[T]he industry is now simply not competitive.”); *A Framework for Sustainable Competition in the Digital Age: Fostering Connectivity, Innovation and Consumer Choice*, Competitive Carriers Association, Docket No. 12-268, p. 19 (Dec. 5, 2013) (“*CCA Competition Framework*”) (“The wireless industry is at a critical juncture, having undergone tremendous consolidation over the last decade that has reduced competition and conferred significant market power on AT&T and Verizon.”).

Commission, for the third time in a row, was unable to find the existence of “effective competition” in the wireless industry.¹³

Fortunately, the current proceedings provide the Commission with crucial opportunities to increase broadband access in rural and other underserved areas and promote much-needed competition in the wireless industry. For instance, the Commission explained how the 600 MHz spectrum has the potential to “promote economic growth and enhance America’s global competitiveness, increase the speed, capacity and ubiquity of mobile broadband service ... and accelerate the smartphone- and tablet-led mobile revolution, benefitting consumers and businesses throughout the country.”¹⁴ The Commission similarly noted the potential of the AWS-3 spectrum to “help ensure that the speed, capacity, and ubiquity of the nation’s wireless networks keeps pace with the skyrocketing demand for mobile service.”¹⁵ And various commenters stressed how these proceedings present the Commission with a “rare opportunity to boost competition in the highly concentrated wireless sector...”¹⁶

¹³ *Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, Sixteenth Report, 28 FCC Rcd 3700, 3837 (2013) (“*Sixteenth Competition Report*”); *see id.* at 3755-57 (finding that market concentration in the wireless industry had once again increased, and noting that, from 2003 to year-end 2011, the average Herfindahl-Hirschman Index (“HHI”) for the wireless market increased from 2151 to 2873 – *i.e.*, a 33.6% increase in concentration – and that a market with an HHI greater than 2500 is classified as “highly concentrated”).

¹⁴ *Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, Notice of Proposed Rulemaking, 27 FCC Rcd 12357, 12359 (2012) (“*Incentive Auction NPRM*”).

¹⁵ *Amendment of the Commission’s Rules with Regard to Commercial Operations in the 1695-1710 MHz, 1755-1780 MHz, and 2155-2180 MHz Bands*, Notice of Proposed Rulemaking and Order on Reconsideration, 28 FCC Rcd 11479, 11481-82 (2013) (“*AWS-3 NPRM*”); *see id.* at 11577 (Statement of Commissioner Rosenworcel) (“This proceeding is important. We are teeing up for auction spectrum bands that have the potential to change our wireless landscape...”).

¹⁶ Reply Comments of Competitive Carriers Association, GN Docket No. 12-268, pp. 1-2 (Mar. 12, 2013) (“*CCA Incentive Auction Reply*”); *see* King Street Incentive Auction Reply at 8 (noting the “tremendous opportunity to enhance ... competition in the wireless industry”); Comments of Cellular South, Inc., GN Docket No. 12-268, p. 1 (Jan. 25, 2013) (“[T]he Commission has a chance to address further concentration of spectrum in the wireless industry while generating new opportunities for competitive operators and new entrants to spur greater innovation and access to wireless services.”); Reply Comments of Leap Wireless International, Inc. and Cricket Communications, Inc., GN Docket No. 12-268, p. 3 (Mar. 12, 2013) (“*Leap Incentive Auction Reply*”) (“[T]he incentive auction process presents a critical opportunity for the Commission to enable competitive carriers to acquire a universally-needed input...”).

But these opportunities will be wasted, and the benefits of ubiquitous broadband access and robust competition will continue to be withheld from too many Americans, if the Commission fails to take steps to ensure that all potential bidders, including small and regional carriers, will have a reasonable chance to acquire licenses for these valuable spectrum resources. USCC therefore joins various commenters in strongly urging the Commission to “design and implement its auctions in a manner that guarantees that small, midsize, and regional wireless carriers have the opportunity to acquire scarce spectrum.”¹⁷ Two crucial actions the Commission should take in this respect are licensing the spectrum on the basis of CMAs and prohibiting any form of package bidding in the auctions for these licenses.

As detailed below, license areas larger than CMAs – particularly if they are as large as Economic Areas (“EAs”) – could prevent many small and regional carriers from participating in the auctions because their geographic size and high population totals would make them prohibitively expensive.¹⁸ Small and regional carriers also often lack the resources necessary to build out such geographically-extensive networks, and their business plans do not include serving the densely-populated urban areas that would invariably be found in EAs. In contrast,

¹⁷ Leap Incentive Auction Reply at 2; *see* Comments of Competitive Carriers Association, GN Docket No. 12-268, p. 3 (Jan. 25, 2013) (“CCA Incentive Auction Comments”) (“The Commission [] must ensure that its incentive auction rules are procompetitive and give all carriers, in particular competitive carriers, a meaningful opportunity to acquire spectrum where needed.”); Cellular South Incentive Auction Reply at 2 (“[T]he Commission’s incentive auction rules should foster wireless industry competition by enabling competitive operators and new entrants a meaningful opportunity to access low band spectrum.”); Comments of MetroPCS Communications, Inc., GN Docket No. 12-268, p. 9 (Jan. 25, 2013) (“MetroPCS Incentive Auction Comments”) (“[T]he forward auction [] must be conducted in a manner intended to ensure a wide distribution of licenses among competitors, as is the Commission’s charge from Congress.”); Comments of Public Service Wireless Services, Inc., GN Docket No. 13-185, p. 2 (Sept. 18, 2013) (“PSW AWS-3 Comments”) (urging the Commission to “ensure that small entities ... have an opportunity to participate in order to promote the deployment of services throughout the country – including to rural areas”).

¹⁸ *See Facilitating the Provision of Spectrum-Based Services to Rural Areas and Promoting Opportunities for Rural Telephone Companies To Provide Spectrum-Based Services*, Notice of Proposed Rulemaking, 18 FCC Rcd 20802, 20833-34 (2003) (“*Facilitating Rural Services NPRM*”) (“[T]he Commission’s choice for the initial size of geographic service areas plays an important role in promoting a number of policy goals, including efficiency of spectrum use, competition among providers, and advancing service to rural areas.”); Letter from Steven K. Berry, Competitive Carriers Association, to Tom Wheeler, Chairman, FCC, GN Docket No. 12-268, p. 2 (Nov. 20, 2013) (“The geographic size of licenses ultimately adopted for the forward auction will not only permanently affect the landscape of the wireless industry – it will directly impact American consumers’ access to next generation advanced communications services for years to come.”).

CMAAs represent the natural market unit for small and regional carriers, and more closely align with these carriers' current spectrum holdings. At the same time, all carriers would benefit from CMAAs because these smaller license areas allow more targeted spectrum acquisitions, while not discriminating in favor of a particular business plan. Moreover, while larger license areas would effectively shut small and regional carriers out of the auctions, large carriers seeking expansive geographic service areas could aggregate CMAAs in order to achieve their desired footprints and take advantage of economies of scale.

Compared to EAs, Partial Economic Areas ("PEAs") would encompass less geography and include lower population totals.¹⁹ PEA-based licensing therefore would mitigate some of the disadvantages larger license areas inflict upon small and regional carriers. As such, PEAs would promote the public interest far better than EAs. However, because PEAs on average will be approximately twice as large as CMAAs, and thus be more likely to have high population totals and include densely-populated urban areas, these license areas still could prove unaffordable to smaller carriers. In addition, because PEAs "nest" within the geographic boundaries of EAs, and thus do not align with the geographic boundaries of CMAAs, smaller carriers could be forced to acquire spectrum rights outside of their existing service areas simply to upgrade their current networks. For these reasons, USCC agrees with the Competitive Carriers Association ("CCA") that "PEAs would not promote opportunities for smaller carriers to the same degree as CMAAs..."²⁰

Also as detailed below, prohibiting package bidding is necessary to provide small and regional carriers with a reasonable opportunity to acquire licenses and use this spectrum to deploy rural broadband networks and increase competition in the wireless industry. Package

¹⁹ See Letter from Rebecca Murphy Thompson, Competitive Carriers Association, to Marlene Dortch, Secretary, FCC, GN Docket No. 12-268, p. 2 (Nov. 27, 2013) ("CCA *ex parte*") (noting that PEAs "would ensure that some licenses consist of large population centers while other PEAs consist of less populous areas").

²⁰ *Id.*

bidding would create substantial exposure risks for smaller bidders because of its potential to reactivate dormant bids, and it would add yet another layer of complexity to the auctions. Package bidding also would increase the likelihood that large bidders will tie-up multiple licenses in large package bids, and thereby exclude smaller carriers with targeted business plans from acquiring the spectrum necessary to serve rural areas.

Further, unlike a license-by-license aggregation strategy, package bidding can force the Commission to accept a package bid even though others made higher bids, on a per-pop basis, for one or more of the licenses included in the package. The result is that package bidding biases auctions in favor of the package bid, disadvantaging all but the largest bidders and likely excluding smaller bidders from any meaningful auction participation. At the same time, package bidding is unnecessary because adequate spectrum aggregation opportunities are available under the Commission's standard auction procedures.

For these reasons, licensing the spectrum on the basis of CMAs and prohibiting package bidding would significantly increase auction participation by providing small and regional carriers a reasonable opportunity to acquire licenses. In addition to more robust bidding, and thus higher auction revenues, the participation of these carriers would increase competition in the wireless industry, the significant benefits of which are noted above. In contrast, if small and regional carriers are excluded from the auctions, the continued lack of adequate competition could negatively impact investment and innovation,²¹ as well as “raise concerns that firms may be able to exercise market power...”²² Thus, ultimately the public would be harmed if the

²¹ See *Sixteenth Competition Report*, 28 FCC Rcd at 3769 (“Ensuring that sufficient spectrum is available ... is critical to promoting competition, investment, and innovation.”).

²² *Fifteenth Competition Report*, 26 FCC Rcd at 9690; see *CCA Competition Framework* at 10 (“This dramatic increase in consolidation and attendant decline in competition threatens to drive up retail prices, reduce innovation, and slow job growth in an economy still recovering from the Great Recession.”) (internal citations omitted).

Commission adopts service rules or auction procedures that make it difficult, if not impossible, for small and regional carriers to successfully participate in the upcoming auctions.²³

Equally important, auction participation by small and regional carriers would substantially increase the likelihood that the spectrum will be used to serve rural and other underserved areas. As NTCA explained, “rural areas often receive subpar or no service by large, nationwide providers, who understandably concentrate their build-out efforts and resources in more profitable, easier to serve, urban areas...”²⁴ On the other hand, “[m]any smaller carriers focus on providing service in rural areas.”²⁵ As a result, “rural consumers often depend on smaller, local wireless providers for service in the areas where they live and work.”²⁶ But these carriers cannot provide advanced broadband services to rural consumers without access to additional spectrum.²⁷ The Commission therefore must ensure that the carriers most likely to serve rural areas, where broadband access currently is lacking and where the “cost of this digital exclusion is large and growing,”²⁸ have a reasonable opportunity to acquire spectrum. As the Commission has recognized, broadband access “can be an important part of addressing many of the problems rural America faces,” including by helping “to restore economic growth and opportunity for Americans residing and working in those areas.”²⁹

²³ See *Prepared Remarks of Acting Chairwoman Mignon L. Clyburn*, Competitive Carriers Association’s Annual Convention, pp. 2-3 (Sept. 17, 2013) (“Competition ... must be preserved, as it is the best way to protect the growing percentage of Americans, who rely solely on mobile services, for their communication needs.”).

²⁴ Reply Comments of NTCA – The Rural Broadband Association, GN Docket No. 13-185, p. 2 (Oct. 28, 2013) (“NTCA AWS-3 Reply”).

²⁵ Comments of Competitive Carriers Association, GN Docket No. 13-185, p. 8 (Sept. 18, 2013) (“CCA AWS-3 Comments”).

²⁶ NTCA AWS-3 Reply at 2; CCA Incentive Auction Comments at 3 (“Rural, mid-size and regional carriers deliver vital public interest benefits to consumers who may not be well served by the largest carriers.”).

²⁷ See NTCA AWS-3 Reply at 2 (“[I]n order to provide service to rural areas, smaller wireless providers must have access to spectrum.”).

²⁸ *Broadband Plan* at 129.

²⁹ *Rural Broadband Report*, 24 FCC Rcd at 12798-99; see *id.* at 12802 (“One study estimates that communities having access to mass-market broadband grew disproportionately in employment, the number of information technology-oriented businesses, and the number of businesses overall.”); *Connect America Fund R&O*, 26 FCC Rcd

II. CMA-BASED LICENSING WOULD BEST PROMOTE THE PUBLIC INTEREST

In order to promote competition and ensure the deployment of rural networks, the Commission should license these spectrum bands on the basis of sufficiently small geographic service areas. Specifically, as detailed below, licensing this spectrum on the basis of CMAs would best serve the public interest.

A. CMA-Based Licensing Would Spur Auction Participation, Increase Competition, Promote Rural Deployments, and Benefit All Carriers.

A failure to adopt CMA-based licenses would significantly decrease auction participation and fail to promote much-needed competition in the wireless industry. As recognized by the Commission on numerous occasions, CMAs are necessary to preserve opportunities for small and regional carriers, as well as new entrants, to acquire licenses.³⁰ CCA and other commenters similarly stressed that, in order to “increase participation among all carriers, but in particular smaller, rural carriers, the FCC should use CMAs...”³¹

at 17667-68 (“Broadband-enabled jobs are critical to our nation’s economic recovery and long-term economic health, *particularly in small towns, rural and insular areas, and Tribal lands.*”) (emphasis added).

³⁰ See, e.g., *Service Rules for Advanced Wireless Service in the 1.7 GHz and 2.1 GHz Bands*, Report and Order, 18 FCC Rcd 25162, 25177 (2003) (“*AWS-1 R&O*”) (“By being smaller, [CMAs] provide entry opportunities for smaller carriers, new entrants, and rural telephone companies.”); *Service Rules for Advanced Wireless Service in the 1.7 GHz and 2.1 GHz Bands*, Order on Reconsideration, 20 FCC Rcd 14058, 14064 (2005) (“*AWS-1 Recon Order*”) (“[W]e find that more spectrum should be licensed on an RSA/MSA basis to meet the needs of rural carriers...”); *Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59)*, Report and Order, 17 FCC Rcd 1022, 1061 (2002) (“*Lower 700 MHz R&O*”) (“Licensing a portion of the Lower 700 MHz Band over [CMAs] balances the playing field such that small and rural providers will have an opportunity to participate in the auction and the provision of spectrum-based services.”).

³¹ Supplemental Comments of Competitive Carriers Association Regarding the 600 MHz Band Plan, GN Docket No. 12-268, p. 8 (June 14, 2013) (“*CCA 600 MHz Band Plan Comments*”); see NTCA AWS-3 Reply at 3 (“CMA-based licensing in the AWS-3 band would permit providers of all sizes – large and small – to meaningfully participate.”); Comments of Leap Wireless International, Inc. and Cricket Communications, Inc., GN Docket No. 12-268, p. 4 (Jan. 25, 2013) (“*Leap Incentive Auction Comments*”) (noting that CMAs “enable a range of companies to participate in the auction and acquire ‘beachfront’ spectrum”); PSW AWS-3 Comments at 1 (“Auctioning spectrum on the basis of CMAs will allow for broad participation in the auctions.”); Reply Comments of Blooston Rural Carriers, GN Docket No. 13-185, p. 1 (Oct. 28, 2013) (“*Blooston AWS-3 Reply*”) (“CMA licensing is necessary to create meaningful opportunities for small and independent service providers to compete...”); Comments of Bluegrass Cellular, Inc., GN Docket No. 13-185, p. 2 (Sept. 18, 2013) (“*Bluegrass AWS-3 Comments*”) (“To increase participation by rural and smaller carriers ... the Commission must adopt smaller geographic license areas...”); William Lehr and J. Armand Musey, *Right-sizing Spectrum Auction Licenses: The Case for Smaller Geographic License Areas in the TV Broadcast Incentive Auction*, p. 9 (“*Lehr/Musey Study*”), attached to Letter from Steven K. Berry, Competitive Carriers Association, to Tom Wheeler, Chairman, FCC, GN

CMAAs spur auction participation by small and regional carriers for a variety of reasons. First and foremost, because CMAAs cover less territory and do not necessarily encompass densely-populated urban areas, they include lower population totals, and thus do not command exorbitant prices at auction. As a result, CMAAs “allow smaller enterprises with limited funding to acquire spectrum licenses.”³²

CMAAs also provide a desirable and efficient scale that fits within the business plans of carriers who compete on a regional or local basis.³³ For instance, the Commission has noted that CMAAs “can be the focus of smaller carriers that do not wish to bid on or provide service to larger regions.”³⁴ The smaller service areas encompassed by CMAAs are particularly important for the many smaller carriers who desire only to serve rural areas. As explained by the Rural Wireless Association (“RWA”),³⁵ and as the Commission has previously recognized, by licensing spectrum on the basis of CMAAs, carriers “interested in providing localized service to rural areas will not have to compete against ‘national’ companies that value a license based solely on densely populated urban areas.”³⁶

Docket No. 12-268 (Nov. 20, 2013) (“Geographic license size is a critical risk factor for promoting [auction] participation.”).

³² *Facilitating Rural Services NPRM*, 18 FCC Rcd at 20834; see King Street Incentive Auction Reply at 6 (“[S]mall markets are particularly critical to small bidders, who generally have less access to capital...”); PSW AWS-3 Comments at 2 (“CMAAs represent the only viable geographic area for small carriers...”).

³³ See *Lower 700 MHz R&O*, 17 FCC Rcd at 1061 (“[CMAAs] can be the focus of smaller carriers that do not wish to bid on or provide service to larger regions.”); Lehr/Musey Study at 15 (“[T]he smaller the license territories, the easier it is for a provider to right-size its desired service coverage area...”).

³⁴ *Lower 700 MHz R&O*, 17 FCC Rcd at 1061.

³⁵ After RWA filed comments in GN Docket 12-268, but prior to filing comments in GN Docket 13-185, RWA changed its name from Rural Telecommunications Group, Inc. For purposes of consistency and clarity, USCC will refer to this entity only as RWA, even when referencing its earlier-filed comments in GN Docket 12-268.

³⁶ Comments of the Rural Wireless Association, Inc. f/k/a Rural Telecommunications Group, Inc., GN Docket No. 13-185, p. 5 (Sept. 18, 2013) (“RWA AWS-3 Comments”); see *AWS-1 R&O*, 18 FCC Rcd at 25177 (finding that CMAAs “permit entities who are only interested in serving rural areas to acquire spectrum licenses for these areas alone and avoid acquiring spectrum licenses with high population densities that make purchase of license rights too expensive for these types of entities”).

The Commission also has recognized that CMAs align with the existing service areas of many small and regional carriers.³⁷ The result, Leap noted, is that CMAs enable smaller carriers to “tailor spectrum acquisition to their service territories” rather than be forced to also purchase spectrum rights for undesired areas outside of their current footprints – assuming this would even be economically feasible.³⁸ Moreover, by better aligning with these carriers’ service areas, CMAs would enable them to quickly and efficiently improve capacity and offer new services.

Perhaps most significantly, the opportunity CMAs would afford small and regional carriers to participate in the auctions would spur network deployments in rural and other underserved areas, which often are the focus of these carriers’ business plans.³⁹ Notably, auction history demonstrates this rural focus of small and regional carriers. For instance, as noted in the Lehr/Musey Study, during the 700 MHz and AWS-1 auctions, both of which included CMA-based licenses, smaller carriers “accounted for 82 percent of the rural MHz-POP licenses” even though they only “accounted for 41 percent of the total MHz-POP licenses acquired” in those auctions.⁴⁰ As noted by RWA, CMAs allow carriers “interested in providing service to rural areas to do so and benefit rural consumers by ensuring that they are served by willing carriers.”⁴¹

In addition, with respect to carriers of all sizes, “CMAs would force winning bidders to provide actual service to small towns and rural communities” in order to meet their buildout

³⁷ See *Lower 700 MHz R&O*, 17 FCC Rcd at 1061 (“MSAs and RSAs represent known area sizes to many business entities, especially small regional and rural providers.”).

³⁸ Leap Incentive Auction Comments at 4; see Lehr/Musey Study at 15 (“Requiring operators to buy more spectrum than desired imposes an unnecessary cost on participants.”).

³⁹ See *AWS-1 R&O*, 18 FCC Rcd at 25177 (finding that the inclusion of CMA-based licenses in the AWS-1 band plan would “foster service to rural areas and tribal lands and thereby bring the benefits of advanced services to these areas”); Comments of the Rural Telecommunications Group, Inc., GN Docket No. 12-268, p. 2 (Jan. 25, 2013) (“RWA Incentive Auction Comments”) (noting that CMAs “would create economic opportunities for small and rural carriers to deploy competitive wireless broadband service in rural areas”).

⁴⁰ Lehr/Musey Study at 20.

⁴¹ RWA AWS-3 Comments at 5; see NTCA AWS-3 Reply at 1-2 (“[L]icensing spectrum on the basis of CMAs is critical to making advanced wireless services available to consumers living in sparsely-populated rural areas.”).

obligations, rather than focus only on the densely-populated portions of a larger license area.⁴² For these reasons, licensing these bands on the basis of CMAs would be the most effective means for the Commission ensure that licensees use the spectrum to provide broadband service to rural and other underserved areas.⁴³ In other words, “Americans who live, work and travel in rural areas would greatly benefit from the adoption of CMA license areas...”⁴⁴

Moreover, with respect to the increased participation by small and regional carriers in the forward auction, the benefits to rural America would be even more pronounced given that the 600 MHz band is particularly well-suited for the rapid and efficient deployment of mobile and other advanced services in high-cost rural areas.⁴⁵ Specifically, as the Commission explained, “the propagation characteristics of the 600 MHz band should allow for robust coverage at a lower cost than some other comparable bands.”⁴⁶ This is true because lower frequencies travel further at a given power level, which “allow[s] providers to cover a relatively large geographic area with a relatively small number of cell sites.”⁴⁷ In fact, according to CCA, networks deployed on spectrum below 1 GHz “only require half the number of sites as at higher bands,”⁴⁸ which means that the 600 MHz band will “provide the network economics essential to building coverage in light suburban and rural markets.”⁴⁹ But small and regional carriers will not have the opportunity to take advantage of these cost savings in order to increase broadband access in rural areas if the Commission does not license the 600 MHz band on the basis of CMAs.

⁴² RWA AWS-3 Comments at 8.

⁴³ See PSW AWS-3 Comments at 2 (“For the goal of increased rural broadband deployment to be realized [] the Commission must license the spectrum on the basis of CMAs.”).

⁴⁴ RWA AWS-3 Comments at 6.

⁴⁵ See *Fifteenth Competition Report*, 26 FCC Rcd at 9885 (“Spectrum below 1 GHz can be crucial for the deployment of mobile wireless service in rural areas...”).

⁴⁶ *Incentive Auction NPRM*, 27 FCC Rcd at 12487-88.

⁴⁷ *Fifteenth Competition Report*, 26 FCC Rcd at 9885.

⁴⁸ CCA 600 MHz Band Plan Comments at 10.

⁴⁹ CCA Incentive Auction Comments at 2.

USCC also notes that the benefits of CMA-based licensing would extend beyond small and regional carriers and the rural customers they would serve using this spectrum. This is because CMAs allow for more targeted spectrum acquisitions and result in greater efficiencies for carriers of all sizes, while not discriminating in favor of any single business plan.⁵⁰ For instance, large carriers would benefit from the use of CMAs because they could focus their spectrum acquisitions on urban areas, where demand is greatest and capacity most constrained.⁵¹ At the same time, smaller carriers could acquire spectrum rights for rural areas without having to also acquire rights covering expansive geography or densely-populated urban areas.⁵²

CMAs also allow bidders to acquire the precise locations called for in their business plans without also acquiring – and excluding other carriers from serving – those additional areas that would otherwise accompany the bidders’ targeted locations in a larger license area. Not only would these targeted spectrum acquisitions “help all bidders avoid excess spectrum costs,”⁵³ but they would help to ensure that localized spectrum rights are awarded to those bidders who value them the most, and thus are most likely to put the spectrum to its highest and best use. In other words, CMAs would help to ensure that the “auction[s] will reallocate spectrum resources efficiently...”⁵⁴

⁵⁰ See *AWS-1 Recon Order*, 20 FCC Rcd at 14066 (“RSAs and MSAs allow entities to mix and match rural and urban areas according to their business plans...”); *AWS-1 R&O*, 18 FCC Rcd at 25176-77 (“These local service areas will be optimal for incumbent operators who may need spectrum capacity only in limited areas.”); Lehr/Musey Study at 2 (“[S]maller areas efficiently match the needs of bidders to the spectrum they seek.”).

⁵¹ See *RWA Incentive Auction Comments* at 5 (“Large providers would benefit from a larger inventory of CMA licenses because it would allow them to acquire spectrum in densely populated urban areas without having to acquire licenses in rural areas.”); Lehr/Musey Study at 21 (“Large operators would be able to better pinpoint spectrum additions in urban areas for their capacity and propagation/penetration requirements...”).

⁵² See *Blooston AWS-3 Reply* at 4 (“CMA licensing will ensure that bidders that are focused on providing service to rural areas will have the ability to bid for spectrum that meets their needs, and companies that are focused primarily on serving urban and metropolitan customers will have the ability to obtain the spectrum resources they need.”).

⁵³ Lehr/Musey Study at 21; see *id.* at 15 (“Requiring operators to buy more spectrum than desired imposes an unnecessary cost on participants.”).

⁵⁴ *Id.* at 2; see *RWA AWS-3 Comments* at 3 (“[S]maller license areas would [] result in greater auction and market efficiency because it would allow bidders to tailor their auction strategy and spectrum acquisitions...”); *Blooston AWS-3 Reply* at 4 (noting that CMAs “help to ensure that valuable spectrum resources will be put to use in an efficient manner”).

Auction history provides support for CMA-based licensing in this respect as well. Specifically, it demonstrates that “smaller license blocks also inure to the benefit of national operators who may be looking to strategically add spectrum through the auction process.”⁵⁵ For instance, as noted in a study by the Analysis Group, in Auction 66 “Verizon Wireless purchased one EA and several CMA licenses in and around Louisiana rather than purchase the REAG license that included these EA and CMA markets.”⁵⁶ As that study explains, although Verizon likely “had the resources to purchase the entire REAG,” its “limited demand in these areas apparently made it more efficient ... to purchase EA and CMA licenses.”⁵⁷

In sum, USCC agrees with CCA that “CMAs strike the right balance and would be an effective geographic unit that would give rural and regional carriers reasonable opportunities to bid, increase the competition in the auction room, thereby increasing auction revenue, and assist in providing competitive opportunities for all carriers, especially smaller carriers, to acquire much-needed low-band spectrum.”⁵⁸

B. EAs Would Significantly Disadvantage Small and Regional Carriers, and Thereby Reduce Auction Participation and Rural Network Deployments.

While CMAs would benefit carriers of all sizes and lead to the substantial public interest benefits detailed above, numerous commenters have stressed that EA-based licensing would effectively foreclose small and regional carriers from participating in the auctions.⁵⁹ Not only do

⁵⁵ Bazelon, C., *Why the Exclusive Use of Large Licenses in the Upper or Lower 700 MHz Bands Would Reduce the Efficiency of the 700 MHz Auction*, Analysis Group, p. 2 (Apr. 20, 2007).

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ CCA 600 MHz Band Plan Comments at 10; *see* Lehr/Musey Study at 35 (explaining that CMA-based licensing would “support the development of a more competitive mobile broadband market, greater innovation, improved rural coverage and greater auction proceeds”).

⁵⁹ *See, e.g.*, CCA AWS-3 Comments at 7 (“[M]any smaller carriers ... will be unable to participate in auctions that use EAs...”); Reply Comments of the Rural Wireless Association, Inc. f/k/a Rural Telecommunications Group, Inc., GN Docket No. 13-185, p. 6 (Oct. 28, 2013) (“RWA AWS-3 Reply”) (“[L]icensing spectrum on an EA basis ... is likely to prevent many small and regional carriers from participating in the auction...”); Bluegrass AWS-3 Comments at 3 (“[L]arge geographic areas, such as EAs, will effectively exclude rural and regional carriers...”); Reply Comments of NTCH, Inc., GN Docket No. 13-185, p. 1 (Oct. 28, 2013) (“NTCH AWS-3 Reply”) (“EA-sized

these carriers lack the need for large swaths of territory,⁶⁰ but they generally lack the financial resources to compete for EAs.

As explained by RWA, “EA based licenses, by the very nature of their size and because they include urban areas, will command very high prices at auction.”⁶¹ The definition of an EA clearly demonstrates the accuracy of this statement. Specifically, as the Commission noted, EAs are defined as “*one or more economic nodes – metropolitan areas or similar areas that serve as centers of economic activity – and the surrounding counties that are economically related to the nodes.*”⁶² Therefore, by definition, EAs would exclude most small and regional carriers from the auctions because, as noted by CCA and others, these carriers typically “lack the financial capability to bid on these large and populous spectrum blocks.”⁶³

territories excludes small carriers...”); PSW AWS-3 Reply at 2 (“Licensing spectrum on the basis of EAs or larger areas would almost certainly prevent PSW and other similarly sized entities from participating in the upcoming auctions at all.”); Reply Comments of Smith Bagley, Inc., MTPCS, LLC d/b/a Cellular One and Cellular Network Partnership d/b/a Pioneer Cellular, GN Docket No. 13-185, pp. 2-3 (Oct. 28, 2013) (“Smith Bagley AWS-3 Reply”) (“EAs would likely prevent smaller carriers from being able to participate in the upcoming auctions at all...”); Letter from David A. LaFuria and John Cimko, Counsel for N.E. Colorado Cellular, Inc., to Marlene Dortch, Secretary, FCC, GN Docket No. 12-268, p. 6 (Dec. 9, 2013) (“N.E. Colorado Cellular *ex parte*”) (“[I]f the Commission selects EAs as the basis for 600 MHz licensing, Viaero would be closed out from competing for the spectrum ...”); Letter from Jonathan Foxman, President & CEO, MTPCS, LLC d/b/a Cellular One, to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 13-185 and 12-268, p. 2 (Oct. 17, 2013) (“Cellular One *ex parte*”) (“If the Commission adopts EAs, Cellular One – like other similarly situated carriers – will not be able to participate...”).

⁶⁰ See Blooston AWS-3 Reply at 2 (“EA licensing is impractical for carriers that have chosen to serve smaller and rural communities...”); RWA Incentive Auction Comments at 2 (“EAs often include densely populated urban areas and typically cover larger geographical areas than the rural areas that rural carriers serve.”); Lehr/Musey Study at 19 (“For many smaller operators, an EA-sized license is significantly larger than needed.”).

⁶¹ RWA AWS-3 Comments at 4.

⁶² *Incentive Auction NPRM*, 27 FCC Rcd at 12411 (emphasis added); *AWS-3 NPRM*, 28 FCC Rcd at 11502 (emphasis added).

⁶³ CCA AWS-3 Comments at 8; see RWA AWS-3 Comments at 4-5 (emphasizing that EA-based licenses would make it “highly unlikely that small and rural carriers will participate in the auction as it will not be affordable”); NTCA AWS-3 Reply at 2 (explaining that EA-based licenses would be “likely to command prices well above that which a small, rural wireless carrier can reasonably expect to afford.”); Smith Bagley AWS-3 Reply at 2 (“The vast majority of smaller carriers [] lack the financial resources to bid on larger spectrum blocks.”); Blooston AWS-3 Reply at 2 (noting that smaller carriers “do not have sufficient resources to bid for EAs that include larger urban and metropolitan areas.”); Lehr/Musey Study at 19 (“The expected cost of acquiring an EA may be beyond the financial wherewithal of smaller operators...”).

Consequently, EA-based licensing “would give significant and unwarranted advantages to the largest nationwide carriers at the expense of smaller carriers...”⁶⁴ As RWA emphasized, the likely result of this competitive imbalance would be to award most or all of the licenses “to large carriers who have historically chosen not to serve rural areas.”⁶⁵ Thus, the practical effect of auctioning the licenses on the basis of EAs would be that “many consumers living, working and traveling in rural areas who are predominantly served by small and rural carriers would be excluded from the benefits of any advanced service deployments on [this] spectrum...”⁶⁶ In other words, such a licensing scheme “would forfeit a prime opportunity to bring broadband to rural America.”⁶⁷

RWA also has explained how EAs would permit carriers to meet population-based performance requirements “by only providing service to cities and suburbs where population centers are located...”⁶⁸ The result, RWA stressed, would be that “consumers in rural areas [would] continue to be overlooked as large carriers focus on high population density urban areas and not rural areas.”⁶⁹ In contrast, the Commission has noted how “licensing smaller geographic

⁶⁴ CCA 600 MHz Band Plan Comments at 9; *see* Bluegrass AWS-3 Comments at 5 (“An auction of larger geographic license areas like EAs for AWS-3 spectrum greatly favors national carriers with substantial resources...”); RWA AWS-3 Comments at 5 (noting that the use of EAs would “essentially leave[] only deep-pocketed, nationwide carriers to acquire the licenses”); N.E. Colorado Cellular *ex parte* at 2 (“The Commission’s proposal would tend to benefit a very small number of large wireless carriers that have both the incentives and the financial resources to acquire licenses spanning large geographic areas.”).

⁶⁵ RWA AWS-3 Comments at 4; *see Fifteenth Competition Report*, 26 FCC Rcd at 9839 (“Generally, as the population density decreases, the under-1 GHz spectrum holdings of the large providers decrease, and those of regional and smaller companies increase.”); Lehr/Musey Study at 20 (“[L]arger operators will logically focus deployment on the most densely populated portions of an EA, and may ultimately determine that it is not economical to serve rural portions of an EA.”).

⁶⁶ RWA AWS-3 Comments at 4; *see* NTCA AWS-3 Reply at 2-3 (“EA-based licensing in the AWS-3 band is [] likely to result in the award of most, if not all, AWS-3 licenses to larger nationwide carriers that serve predominately urban areas.”).

⁶⁷ N.E. Colorado Cellular *ex parte* at 3.

⁶⁸ RWA AWS-3 Comments at 7.

⁶⁹ *Id.*

blocks averts the phenomenon of huge tracts of licensed territory being left unserved.”⁷⁰

Accordingly, for this reason as well, CMAs would facilitate the prompt availability of innovative broadband services to rural and other underserved areas.⁷¹

USCC further notes that the substantial record in these proceedings directly conflicts with the Commission’s broad assertions in both the Incentive Auction and AWS-3 NPRMs that EAs “represent a natural market unit for local or regional service areas.”⁷² As RWA explained, because EAs “often include densely populated urban areas and are typically much larger than the rural areas that rural carriers serve,” they are “not at all representative of local service areas.”⁷³ Instead, the “natural market unit for local or regional service areas is CMAs.”⁷⁴

Notably, the Commission’s assertions regarding EAs conflict with its own precedent. For instance, in the Lower 700 MHz proceeding, the Commission “recognize[d] the importance to small and regional providers of licensing a significant portion of this spectrum band across MSAs and RSAs.”⁷⁵ In doing so, the Commission explained that “MSAs and RSAs represent known area sizes to many business entities, *especially small regional and rural providers*,” and that these service areas “correspond to the needs of many customers, *including customers of small regional and rural providers*.”⁷⁶ The Commission therefore concluded that these smaller service areas were necessary to provide “small and rural providers [with] an opportunity to

⁷⁰ *Service Rules for Advanced Wireless Services in the 2000-2020 MHz and 2180-2200 MHz Bands*, Report and Order and Order of Proposed Modification, 27 FCC Rcd 16102, 16122 (2012); *see AWS-1 R&O*, 18 FCC Rcd at 25244 (Separate Statement of Commissioner Adelstein) (“Large service areas also can have the effect of creating swaths of fallow spectrum in areas outside of our nation’s populated service areas.”).

⁷¹ *See AWS-1 R&O*, 18 FCC Rcd at 25177 (explaining that CMA-based licenses “will foster service to rural areas and tribal lands and thereby bring the benefits of advanced services to these areas”); *Rural Broadband Report*, 24 FCC Rcd at 12858 (noting that, in recent years, the Commission has “adopt[ed] smaller license sizes when creating band plans” as a means “to encourage broadband deployment in rural areas”).

⁷² *Incentive Auction NPRM*, 27 FCC Rcd at 12411; *AWS-3 NPRM*, 28 FCC Rcd at 11502.

⁷³ RWA AWS-3 Comments at 3; *see* Blooston AWS-3 Reply at 3 (“EAs do not match up well with the incumbent service areas of smaller companies...”).

⁷⁴ RWA AWS-3 Comments at 6.

⁷⁵ *Lower 700 MHz R&O*, 17 FCC Rcd at 1061.

⁷⁶ *Id.* (emphasis added).

participate in the auction and the provision of spectrum-based services.”⁷⁷ Similarly, in the AWS-1 proceeding, the Commission found that CMAs were necessary “to meet the needs of rural carriers...”⁷⁸

Further, while USCC generally agrees with the Commission that there are benefits to adopting service areas that align with those in adjacent spectrum bands,⁷⁹ USCC does not believe this adequately justifies the use of EAs. As RWA stressed in the AWS-3 proceeding, by basing its proposal to license the spectrum using EAs in part on this reasoning, the Commission gave “short shrift to AWS-3’s proximity to the 734 CMA-based licenses in the AWS-1 A Block.”⁸⁰ In other words, “[a]dopting CMA-based licensing for AWS-3 would still allow AWS licensees to consolidate operations with adjacent-band licenses...”⁸¹ This is particularly true for small and regional carriers, whose AWS-1 spectrum holdings primarily consist of CMA-based licenses.⁸² But it also is true for T-Mobile, whose acquisition of 93 A Block licenses made it by far the top bidder for CMA-based licenses in Auction 66 in terms of both net bid amounts (\$1,088,866,000) and population covered (93,681,616).⁸³

Moreover, this purported justification for using EAs has no relevance to the 600 MHz band which, unlike the AWS-3 spectrum, will not be used to extend an existing spectrum allocation.⁸⁴ As noted in the Lehr/Musey Study, because the Commission “will start with a clean slate in the 600 MHz band once the television broadcasters are cleared,” the “choice of license

⁷⁷ *Id.*

⁷⁸ *AWS-1 Recon Order*, 20 FCC Rcd at 14064.

⁷⁹ *See AWS-3 NPRM*, 28 FCC Rcd at 11502 (noting that a licensing approach that is compatible with adjacent spectrum bands may “result in more efficient opportunities for available spectrum to be put to use where needed”).

⁸⁰ RWA AWS-3 Comments at 5.

⁸¹ *Id.* at 6.

⁸² *See Auction of Advanced Wireless Services Licenses Closes; Winning Bidders Announced for Auction No. 66*, Public Notice, 21 FCC Rcd 10521, 10545-82 (2006).

⁸³ *See* http://wireless.fcc.gov/auctions/66/charts/66press_3.pdf.

⁸⁴ *See Lehr/Musey Study* at 27 (“In contrast to other bands, pairing issues do not arise as a reason for preferring larger EAs over an area size like CMAs in the 600 MHz auction.”).

territories will not be encumbered by prior decisions.”⁸⁵ USCC also agrees that, “[i]f anything, this argument cuts in favor of CMAs, as the adjacent 700 MHz band is licensed with a variety of license sizes including CMAs, and the 850 MHz band is licensed on a CMA basis.”⁸⁶

Along these same lines, USCC notes that small and regional carriers would be further disadvantaged by the use of EAs because these carriers are far more likely than the national carriers to already hold CMA-based licenses. As CCA explained, a failure to license the spectrum on the basis of CMAs could force smaller carriers “to bid on multiple EAs, each of which includes significantly more populated areas, to acquire spectrum that covers their [existing service] footprint.”⁸⁷ In other words, simply to upgrade its network for the benefit of existing customers, a carrier’s only option may be to acquire several EA-based licenses. Of course, for small and regional carriers, this would be an impossibility given that even individual EAs are prohibitively expensive for many of these carriers. The result would be significantly reduced auction participation by small and regional carriers because neither their finances nor business plans could reasonably permit them to bid on multiple EAs. In this respect, several commenters provided compelling real-world examples that clearly demonstrate this likely outcome if the Commission utilizes EA-based licensing.

For example, Bluegrass, a carrier who has been serving rural parts of Kentucky since 1990 using CMA-based licenses, would be forced to bid on four EAs “just to win spectrum to cover the counties within its current service footprint.”⁸⁸ Stated differently, Bluegrass would have “to bid on spectrum that covers a population of approximately six million when its core markets cover a much smaller footprint (somewhere closer to a population of 1.2 million).”⁸⁹ As

⁸⁵ *Id.*

⁸⁶ *Id.*

⁸⁷ CCA AWS-3 Comments at 8.

⁸⁸ Bluegrass AWS-3 Comments at 3.

⁸⁹ *Id.*

a result, Bluegrass would have to forego the opportunity to upgrade its networks because it “does not have the financial wherewithal to bid on five separate EAs encompassing five times the number of population it currently serves.”⁹⁰

Similarly, Public Service Wireless (“PSW”), which is deploying a 4G network to serve rural and underserved areas in central Georgia and Alabama, described how the use of EAs would force it to bid on five licenses “covering approximately 8.9 million POPs in Alabama, Georgia, Florida and North Carolina, and including the Atlanta metropolitan area,” simply to acquire “spectrum in the regional area that PSW serves or desires to serve.”⁹¹ For PSW, “[s]uch a proposition would simply be untenable.”⁹² And, in recent *ex parte* submissions, Carolina West Wireless,⁹³ Cellular One,⁹⁴ and N.E. Colorado Cellular⁹⁵ all described how EA-based licensing would make it prohibitively expensive for them to simply cover their existing service footprints.

USCC also notes that, in both NPRMs, the Commission appeared to base its proposal to use EA-based licensing on its belief that these service areas represent a sort of compromise between the needs and desires of the few national carriers and those of small and regional

⁹⁰ *Id.*

⁹¹ PSW AWS-3 Comments at 2.

⁹² *Id.*

⁹³ In an auction with EA-based licenses, Carolina West, which currently holds CMA-based AWS-1 licenses, and which “prides itself on delivering quality service to rural North Carolina,” would be forced “to bid on spectrum covering over 18 million POPs, when its core markets cover a much smaller footprint ... closer to 2.5 million POPs.” Letter from Slayton Stewart, CEO, Carolina West Wireless, Inc., to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 13-185 & 12-268 and AU Docket No. 13-178, pp. 1-2 (Oct. 7, 2013) (“Carolina West *ex parte*”).

⁹⁴ In an auction with EA-based licenses, Cellular One, which currently holds CMA-based licenses for rural portions of Texas and Louisiana, and which was formed “with a mission to provide real value to consumers and businesses in markets that were significantly underserved,” would be forced “to bid on spectrum covering over 19 million pops” when its current license areas cover “a population fewer than one million people.” Cellular One *ex parte* at 2.

⁹⁵ N.E. Colorado Cellular’s current CMA-based service area spans 10 EAs, but only three of these EAs are entirely within its service area. As a result, it would be forced to buy a substantial amount of additional, and unwanted, spectrum simply to add capacity to its current networks. In total, N.E. Colorado Cellular estimates that EA-based licensing would require it to spend \$7.1 million for spectrum outside of its service area, which is nearly 2.5 times the estimated value of the spectrum actually within its service area. As a small company, N.E. Colorado Cellular “simply is not in a position to spend \$7.1 million for spectrum that it does not need.” N.E. Colorado Cellular *ex parte* at 5-6.

carriers.⁹⁶ However, as noted, small and regional carriers generally cannot compete effectively for EAs because the populations within these license areas make them prohibitively expensive. Further, as in the Bluegrass example, EAs could force these carriers to acquire spectrum and build greenfield networks in areas where they have no existing customers and little prospect of profitably launching service. EAs also typically cover more geography than small and regional carriers have the ability to adequately build out. USCC believes it would be unreasonable to justify a particular licensing approach on the rationale that it would balance the needs of all carriers when, in fact, it would exclude a majority of potential bidders from the auction.

Moreover, the Commission has found that “choosing a geographic service area that represents a ‘middle solution’ may be an inefficient approach.”⁹⁷ In doing so, the Commission explained that, “if nationwide providers need large or nationwide service areas and regional or rural providers need very small areas,” the winning bidders “would have to either aggregate or partition in order to meet their spectrum needs.”⁹⁸ As a result, “the use of service areas that are medium sized in an attempt to find a ‘middle solution’ may impose unnecessary transaction costs.”⁹⁹ While EAs may not be ideally suited for any size carrier, as noted, CMAs allow for targeted spectrum acquisitions, and thus accommodate the business plans of both large and small carriers. In addition, as detailed below, CMAs can easily be aggregated by large carriers seeking expansive service territories, while small and regional carriers likely will never gain access to these spectrum resources unless initially allocated and auctioned on the basis of CMAs.

⁹⁶ See *Incentive Auction NPRM*, 27 FCC Rcd at 12411 (“We believe that for this spectrum, EA licensing strikes an appropriate balance...); *AWS-3 NPRM*, 28 FCC Rcd at 11502 (stating that EAs both “represent a natural market unit for local or regional service areas” and “may be aggregated up to larger license areas ... for operators seeking larger service areas”).

⁹⁷ *Facilitating Rural Services NPRM*, 18 FCC Rcd at 20837.

⁹⁸ *Id.*

⁹⁹ *Id.*

C. While Large Carriers Can Readily Aggregate Small License Areas, the Theoretical Availability of Secondary Market Transactions is Woefully Insufficient to Provide Spectrum Access to Small and Regional Carriers.

While larger license areas would substantially disadvantage small and regional carriers, as well as the rural customers they hope to serve, large carriers would not be similarly disadvantaged by small license areas. As RWA and other commenters previously emphasized, “large carriers that wish to establish vast footprints could bid on and aggregate CMA licenses into larger areas.”¹⁰⁰ In fact, the national carriers’ substantial financial resources likely would permit them to acquire every sought-after CMA-sized license simply by outbidding smaller carriers.¹⁰¹ In other words, as detailed above, the use of CMAs would benefit all carriers by allowing them to take a “building block” approach and assemble as much coverage area as they desire.¹⁰² For instance, “with respect to larger carriers, the Commission has said that aggregation at auction of smaller spectrum licenses and blocks may provide bidders with greater flexibility to implement their business plans as compared with a more traditional approach of defining an optimal size.”¹⁰³ Accordingly, “the choice of smaller license sizes instead of EAs would not inefficiently impact the efforts of larger operators to right-size their spectrum acquisitions.”¹⁰⁴

In stark contrast, because EAs are unnecessarily large, and thus out of reach for most small and regional carriers during an auction, it would be highly unlikely that these carriers

¹⁰⁰ RWA AWS-3 Comments at 5; *see* CCA 600 MHz Band Plan Comments at 7 (noting that CMAs would “allow[]larger carriers to aggregate blocks to serve larger geographic areas.”); NTCA AWS-3 Reply at 3 (“[L]arger carriers interested in regional or nationwide footprints would be free to bid on and aggregate multiple CMAs.”); Bluegrass AWS-3 Comments at 5 (“[T]he use of smaller geographic license areas will not preclude larger carriers from aggregating blocks of spectrum to serve larger geographic areas.”); NTCH AWS-3 Reply at 2 (“CMA-sized licenses [] can [] be assembled by winning bidders into larger license areas to suit their needs...”).

¹⁰¹ *See* Lehr/Musey Study at 28 (“[N]othing prevents a carrier who wants spectrum for a larger coverage area, potentially even nationwide, from being the highest bidder in every CMA the carrier wants to cover.”); *id.* at n. 75 (noting “AT&T’s ability to acquire a near-nationwide footprint with CMAs in the Lower 700 B Block spectrum”).

¹⁰² *See* Bluegrass AWS-3 Comments at 5 (“[T]he needs of both larger and smaller carriers, regardless of their desired footprint, can be satisfied with the use of smaller geographic license areas.”); RWA AWS-3 Reply at 5 (“CMAs will also allow large carriers to aggregate licenses to cover the larger areas they seek to serve, thereby accommodating all sizes of carriers.”).

¹⁰³ *AWS-1 Recon Order*, 20 FCC Rcd at 14066.

¹⁰⁴ Lehr/Musey Study at 28.

would ever gain access to these valuable spectrum resources.¹⁰⁵ Although the Commission proposes to permit licenses to be partitioned, disaggregated or leased,¹⁰⁶ such divestitures have been, and likely will continue to be, the exception rather than the rule.¹⁰⁷ As a consequence, the theoretical availability of transactions in the secondary market, which is “primarily dominated by the largest carriers,”¹⁰⁸ is unlikely to provide small and regional carriers with timely or adequate access to the spectrum.¹⁰⁹

For instance, because the exponentially-increasing demand for wireless broadband services makes carriers’ future spectrum needs uncertain, the large carriers likely would be unwilling to speculate about their spectrum needs, and therefore disinclined to divest spectrum rights that might put them at a competitive disadvantage at some point in the future. In addition, from the perspective of large carriers, the potential income from leasing or selling spectrum rights in rural areas is quite small compared to the profits they seek from utilizing the large licenses in major urban markets. As a consequence, they likely, and rationally, could decide to focus their efforts on capturing market share and rolling out new services in their principal markets rather than diverting resources to secondary market transactions.

Further, in the unlikely event that large carriers prove willing to enter into secondary market transactions, the small and regional carriers in need of this spectrum would be forced to

¹⁰⁵ See *AWS-1 R&O*, 18 FCC Rcd at 25219 (“[B]ased upon the Commission’s experience, the auction process provides the best opportunity to date for designated entities to acquire licenses.”).

¹⁰⁶ See *Incentive Auction NPRM*, 27 FCC Rcd at 12485-86; *AWS-3 NPRM*, 28 FCC Rcd at 11533-35.

¹⁰⁷ See *Service Rules for Advanced Wireless Services in the 2155-2175 MHz Band*, Notice of Proposed Rulemaking, 22 FCC Rcd 17035, 17090, n. 260 (2007) (“[S]ome commenters in the rural proceeding ... argued that existing secondary market mechanisms are insufficient to promote access to spectrum.”); *Rural Broadband Report*, 24 FCC Rcd at 12860 (noting that some commenters stressed that the Commission’s “secondary market rules do not always promote spectrum trading and re-use...”).

¹⁰⁸ Lehr/Musey Study at 34.

¹⁰⁹ See NTCH AWS-3 Reply at 2 (“While this avenue is theoretically available, in practice the larger carriers have rarely been willing to part with portions of their spectrum...”); RWA Incentive Auction Comments at 5 (“[T]he Commission’s belief that EA licensees would adjust their geographic coverage through auction or through secondary markets is misplaced.”).

incur potentially significant transactional costs.¹¹⁰ As a result of this unnecessary additional expense, small and regional carriers could be forced to reduce their intended buildout in rural and other underserved areas due to the overall budget constraints faced by many such carriers.¹¹¹ In contrast, the Commission has found that auctioning licenses “on a CMA basis may allow small and rural providers to obtain license areas that meet their needs while avoiding the transaction costs associated with obtaining access to spectrum in the secondary market.”¹¹² At the same time, as noted, the substantial financial resources of the largest carriers should allow them to assemble their desired footprints during the auction by aggregating CMAs. Moreover, in the unlikely event that large carriers need to turn to the secondary market post-auction to fill minor gaps in their desired service areas, they would be in a far better position to absorb any related costs, and thus would not be prevented from deploying robust networks.¹¹³

In addition, even assuming that large carriers would offer some spectrum rights in the secondary market, they may resist ceding all control over their licenses to carriers that could pose a competitive threat.¹¹⁴ Instead, they may insist that any transfer of spectrum rights to potential competitors be accomplished through limited lease agreements or pursuant to partnership or other arrangements that require the smaller carriers to cede control of, and revenues derived from, the spectrum. Not only are such transactions unattractive to smaller carriers, but these limited options would “reduce[] the effectiveness of the potential competition such operators

¹¹⁰ See *Facilitating Rural Services NPRM*, 18 FCC Rcd at 20834 (“Since it is costly to aggregate or disaggregate spectrum, it is important that the Commission select initial license sizes and boundaries that are appropriate for the likely users and services to be provided.”).

¹¹¹ See *Lehr/Musey Study* at 18 (“The added costs and delay associated with re-assigning the spectrum via secondary markets or sub-leases will distort investment in complementary assets such as radio network infrastructure, and will increase the cost and delay of delivering broadband to underserved communities.”).

¹¹² *700 MHz Second R&O*, 22 FCC Rcd at 15319.

¹¹³ See *Lehr/Musey Study* at 22 (“[I]t is reasonable to expect that the costs of dealing with wrong-sized spectrum territories would adversely impact smaller operators disproportionately.”).

¹¹⁴ See *id.* at 34 (“[L]arger carriers who benefited from the foreclosure of smaller operators due to the choice of EAs instead of CMAs would have little incentive to hand back such benefits by making any excess spectrum resources they have available to those same smaller operators.”).

might offer.”¹¹⁵ For these reasons, USCC agrees with RWA that the “redistribution of spectrum throughout geographic areas should not be contingent on large carriers entering into secondary market arrangements with small entities or giving up unused spectrum.”¹¹⁶

In sum, small and regional carriers are likely to encounter substantial, and perhaps insurmountable, delays and costs in obtaining spectrum in the secondary market.¹¹⁷ The Commission therefore must auction the spectrum using small license areas in order to permit these carriers to bid directly on licenses rather than be forced to rely on costly post-auction transactions¹¹⁸ – assuming these carriers would even have an opportunity to acquire spectrum rights in the secondary market. As NTCH stressed, the “secondary market is simply not a remedy for the very real and growing spectrum chasm between small and large carriers.”¹¹⁹

D. By Increasing Auction Participation, CMAs Maximize Auction Revenue.

Auction history clearly demonstrates that the increased participation by small and regional carriers made possible by CMA-based licensing leads to more robust bidding, and thus higher auction revenues.¹²⁰ For instance, in Auction 73, there was a direct correlation between

¹¹⁵ *Id.*

¹¹⁶ RWA Incentive Auction Comments at 5.

¹¹⁷ See RWA AWS-3 Comments at 7 (“Most small and rural carriers that actually serve consumers in rural areas would have to wait out the auction and then try to negotiate secondary market arrangements..., assuming a secondary market even develops and license holders are willing to part with their spectrum at reasonable prices.”).

¹¹⁸ See *Facilitating Rural Services NPRM*, 18 FCC Rcd at 20834 (“[I]f the geographic service areas represent the needs of providers, substantial costs may be saved.”).

¹¹⁹ NTCH AWS-3 Reply at 2.

¹²⁰ See CCA 600 MHz Band Plan Comments at 9 (“With smaller geographic areas, more carriers are able to bid for licenses, and the increased number of bidders leads to higher revenue.”); Blooston AWS-3 Reply at 4 (“CMA licensing is likely to increase overall auction revenue.”); Bluegrass AWS-3 Comments at 4 (“Licensing spectrum blocks in CMAs will [] encourage a larger number of carriers to participate in any AWS-3 auction, thereby leading to greater auction revenues...”); Cellular One *ex parte* at 2 (“CMAs would increase both participation in, and revenues generated through upcoming spectrum auctions.”); Carolina West *ex parte* at 2 (“With smaller geographic areas, more carriers are able to bid for more licenses, and the increased number of bidders leads to higher revenue.”); Smith Bagley AWS-3 Reply at 3 (“By accommodating multiple business plans, licensing spectrum blocks in CMAs will encourage a larger number of carriers to participate in any AWS-3 auction, thereby leading to greater auction revenues...”).

the size of the license being offered and the auction revenue generated.¹²¹ Specifically, the CMA-based licenses for the Lower B Block sold for \$2.68/MHz-pop, while the EA-based licenses for the Lower A Block sold for \$1.16/MHz-pop and the REAG-based licenses for the Upper C Block sold for only \$0.76/MHz-pop.¹²² In addition, CCA previously explained how the robust participation by small or rural carriers in Auction 73, who were predominantly bidding on CMAs, led to an increase in overall auction revenue. Specifically, “[i]n addition to the almost \$2 billion competitive carriers paid for licenses in Auction 73, these small entities also bid \$1.2 billion for licenses that larger providers ultimately paid \$1.6 billion to win – driving an additional \$400 million in revenue that most likely wouldn’t have materialized had these carriers not participated and increased bid amounts.”¹²³

The positive effect CMA-based licensing has on auction revenue was not limited to Auction 73. In fact, a recent analysis using “data on more than 69,000 licenses from every FCC spectrum auction since 1996” came to the same conclusion.¹²⁴ Specifically, “the analysis reveal[ed] a clear negative correlation between the size of the region specified by the license and the revealed private value of the license.”¹²⁵ USCC also notes that, while anticipated auction revenue is always a valid consideration for the Commission,¹²⁶ it is particularly important here

¹²¹ See CCA 600 MHz Band Plan Comments at 9 (“[L]ooking back at the 700 MHz auction, blocks of spectrum made available in smaller geographic areas generated more revenue on a MHz-pop basis than larger geographic areas.”); Bluegrass AWS-3 Comments at 4 (“[I]n Auction 73, blocks of spectrum made available in smaller geographic areas generated more revenue on a MHz-pop basis than larger geographic areas.”).

¹²² See CCA 600 MHz Band Plan Comments at 9.

¹²³ *Id.*; see Lehr/Musey Study at 20 (“When confronting the increased competition for spectrum from smaller and rural operators, the larger operators may be induced to bid more aggressively.”).

¹²⁴ Scott Wallsten, *Is There Really a Spectrum Crisis? Quantifying the Factors Affecting Spectrum License Value*, Technology Policy Institute, p. 1 (Jan. 23, 2013) (available at https://techpolicyinstitute.org/files/wallsten_is_there_really_a_spectrum_crisis.pdf).

¹²⁵ *Id.* at 21.

¹²⁶ See *Ranger Cellular v. FCC*, 33 F.3d 255, 261 (D.C. Cir. 2003) (“[T]he Commission is free to consider revenue enhancement when determining whether to expand the pool of eligible bidders.”).

because lower revenues may mean reduced funding for our nation's first responders.¹²⁷

Moreover, with respect to the forward auction, lower revenues could result in less spectrum being cleared or even lead to auction failure if sufficient funds are not available to meet the Spectrum Act's closing conditions.¹²⁸ Thus, for this reason as well, the Commission should license both the 600 MHz and AWS-3 spectrum bands on the basis of CMAs.

E. CMAs Would Increase the Amount of Interference-Free Spectrum.

The use of CMAs also would help to maximize the amount of interference-free spectrum available for both the broadcast incentive and AWS-3 auctions. For instance, with respect to the 600 MHz band, the Commission explained how CMAs “could potentially support much greater variation in the amount of reclaimed spectrum from area to area,” and thereby permit the Commission to “license more wireless spectrum that is not encumbered by potential interference with nearby remaining broadcast television spectrum.”¹²⁹ In contrast, as noted in the Lehr/Musey Study, “the use of EA-based territories would increase the population covered by areas encumbered by interference protection zones for remaining television broadcasters.”¹³⁰ Accordingly, “[s]maller license areas are better than EAs because smaller areas will help to maximize the amount of spectrum that is repurposed for the Forward Auction.”¹³¹

As the attached map demonstrates, another significant benefit would be that, in contrast to EA-based licensing, CMAs would greatly increase the number of markets that would have 85

¹²⁷ See *Incentive Auction NPRM*, 27 FCC Rcd at 12555 (Statement of Commissioner Jessica Rosenworcel) (“We cannot divorce the choices this agency makes in developing these auctions from the broader purposes in this legislation and the public safety needs of the American people.”); *AWS-3 NPRM*, 28 FCC Rcd at 11577 (Statement of Commissioner Rosenworcel) (“[I]f we get this right, we [] will substantially fund a nationwide, interoperable, wireless broadband network for public safety...”).

¹²⁸ See Lehr/Musey Study at 23 (“[B]road participation which ensures that potential high bidders are not foreclosed will help reduce the risk of a low bidding scenario that may fail to meet reserve requirements and result in less spectrum being cleared.”).

¹²⁹ *Incentive Auction NPRM*, 27 FCC Rcd at 12411.

¹³⁰ Lehr/Musey Study at 15.

¹³¹ *Id.* at 2; see RWA Incentive Auction Comments at 4 (“Licensing on a CMA basis would result in a greater number of small license areas ... unencumbered by television broadcast stations...”).

MHz of spectrum, or significantly more, available through repacking alone.¹³² In other words, the use of CMAs would increase the amount of spectrum available for the forward auction without the need to make any additional incentive payments to broadcasters. The Lehr/Musey Study also notes how CMAs would facilitate coordination with Canada and Mexico because they “would allow the FCC to limit the spectrum resources and markets (population, or ‘POPs’) that might have to be encumbered in order to address national border coordination issues.”¹³³

With respect to the AWS-3 bands, CMAs would permit a greater number of license areas that do not include all or a portion of one of the Protection Zones that likely will be established to protect incumbent federal users from harmful interference. Thus, as CCA explained, CMAs would “help to maximize the amount of spectrum available for auction by minimizing the effect of federal exclusion zones...”¹³⁴ Moreover, because fewer licenses would be encumbered by ongoing federal operations, licensing the AWS-3 spectrum on the basis of CMAs would “facilitate the rapid deployment of more spectrum for advanced wireless services.”¹³⁵

F. The Commission is Statutorily Obligated to Establish Sufficiently Small License Areas.

Licensing these spectrum bands using small service areas also is necessary for the Commission to comply with its statutory obligations. As detailed above, license areas larger than CMAs, and in particular license areas as large as EAs, likely would prevent, or at least significantly deter, small and regional carriers from successfully participating in the auction. This would violate the Commission’s obligations to “avoid[] excessive concentration of licenses,” to promote “economic opportunity for a wide variety of applicants,” and to “ensure that small businesses, rural telephone companies, and businesses owned by members of minority

¹³² See Lehr/Musey Study at 15 (“The amount of unencumbered spectrum the FCC will clear following repacking of the remaining broadcasters varies significantly based on the size of the license areas.”).

¹³³ *Id.*

¹³⁴ CCA AWS-3 Comments at 8.

¹³⁵ *Id.* at 9.

groups and women are given the opportunity to participate in the provision of spectrum-based services.”¹³⁶

In addition, because EAs would exclude those carriers most likely to serve rural markets from participating in the auctions, and because EAs would permit licensees to satisfy their build-out requirements by concentrating only on urban areas, the Commission would violate its statutory obligations to promote service to all Americans, including those who reside in rural areas.¹³⁷ This also would prevent the spectrum from being put to its highest and best use in violation of the Commission’s statutory obligation to ensure the “efficient and intensive use of electromagnetic spectrum.”¹³⁸

Moreover, even in the unlikely event that the national carriers proved willing to engage in post-auction transactions with small and regional carriers, this would not remedy the statutory violations that would arise from EA-based licensing. As noted by RWA, at a minimum, “waiting on secondary market transactions [would] unduly delay AWS-3 deployments reaching consumers in rural areas, which is counter to Section 309(j)(3)(A) of the Act.”¹³⁹ As RWA explained, because Section 309(j) “addresses the assignment of *initial licenses* through competitive bidding,” the Communications Act obligates the Commission to “adopt rules that

¹³⁶ 47 U.S.C. §§309(j)(3)(B), (j)(4)(C)(ii) and (j)(4)(D); see RWA AWS-3 Comments at 5 (“CMA-based licensing would be more likely to attract a wide variety of bidders to the AWS-3 auction in compliance with Section 309(j)(3)(B) of the Act.”); see *id.* (explaining that, by “[f]acilitating the award of AWS-3 licenses to only the large, nationwide carriers,” EA-based licensing would “promote the excessive concentration of licenses in violation of Section 309(j)(3)(B)...”).

¹³⁷ See 47 U.S.C. §§309(j)(3)(A), 309(j)(4)(B) and 309(j)(4)(C)(i); *Facilitating Rural Services R&O*, 19 FCC Rcd at 19081 (“One of the Commission’s primary statutory obligations, as well as one of its principal public policy objectives, is to facilitate the widespread deployment of facilities-based communications services to all Americans, including those doing business in, residing in, or visiting rural areas.”); NTCA AWS-3 Reply at 4 (“CMA-based licensing in the AWS-3 band would promote the availability of advanced wireless services to consumers in rural areas, in keeping with the Section 309(j) directive established by Congress.”); see RWA AWS-3 Comments at 4 (explaining how withholding licenses from small and regional carriers would, in turn, cause rural residents to “be excluded from the benefits of any advanced service deployments on AWS-3 spectrum in violation of Section 309(j)(3)(A) of the Act”).

¹³⁸ 47 U.S.C. §309(j)(3)(D).

¹³⁹ RWA AWS-3 Comments at 8.

draw rural carriers into the competitive bidding process rather than push them out of the process to secondary markets.”¹⁴⁰

G. While Preferable to EAs, the Size and Geographic Boundaries of PEAs Would Disadvantage Small and Regional Carriers Relative to CMAs.

USCC agrees with CCA that using PEAs “would be far preferable to an approach based on EAs alone,”¹⁴¹ and therefore would represent a substantial improvement on the EA model. Nonetheless, for the various reasons detailed above, USCC also agrees that “CMAs represent the most efficient and procompetitive license size.”¹⁴² For instance, while there would be 734 CMA-based license areas, the PEA alternative would divide the continental United States into only 348 license areas.¹⁴³ Consequently, on average, each PEA-based license would cover more than twice the geography of a CMA-based license. The smaller number of PEAs also means that a greater number of license areas would include densely-populated urban areas along with the rural counties desired by smaller and regional providers. Thus, PEAs generally would cover significantly more territory and include far greater population totals than CMAs, which very well could make PEA-based licenses unaffordable to smaller carriers.

Perhaps even more problematic is the fact that all of the PEAs “nest” within the geographic boundaries of EAs.¹⁴⁴ As noted, the service areas of many small and regional carriers consist primarily or even exclusively of CMA-based license areas. Consequently, like with EAs, many carriers could be forced to acquire spectrum rights outside of their existing service areas simply to add capacity or otherwise upgrade their current networks. For carriers with limited financial resources, this additional, and potentially significant, cost very well could

¹⁴⁰ *Id.* at 7-8 (emphasis in original).

¹⁴¹ CCA *ex parte* at 2.

¹⁴² *Id.*

¹⁴³ See Public Notice at 2, n. 11.

¹⁴⁴ See CCA *ex parte* at 2.

make some PEA-based licenses prohibitively expensive for these carriers. Moreover, even if such a carrier has the required funds, it would be less likely to participate in the auctions because doing so would force it to pay for spectrum it does not need, and perhaps could not build out. At a minimum, these carriers would temper their bidding.

Although the Commission’s initial EA-based licensing proposal rested in part on its belief that this approach would create a more “manageable number of licenses from an auction design standpoint,”¹⁴⁵ USCC questions whether this consideration sufficiently justifies the use of license areas larger than CMAs. Rather, USCC agrees with the authors of the Lehr/Musey Study that, “[g]iven its past use of both large and small license territories, the FCC clearly has the expertise to handle an auction with many licenses.”¹⁴⁶ As the authors explained, nearly two decades ago the “Commission successfully managed auctions with 493 BTA regions,” and “[s]ince then, the experience and expertise of the FCC and the industry in auctions have advanced significantly.”¹⁴⁷ The authors therefore concluded that “the number of territories auctioned is unlikely to significantly impact costs,” particularly in light of “today’s environment of software-assisted auctions and spectrum management...”¹⁴⁸

Moreover, even if the use of CMAs would lead to marginally higher costs, USCC agrees with N.E. Colorado Cellular that, “[f]rom the perspective of smaller carriers, it would be better to have to deal with any auction planning and participation complications that may arise, rather than to be priced out of the auction altogether...”¹⁴⁹ Similarly, RWA noted how “[a]ny benefits

¹⁴⁵ *Incentive Auction NPRM*, 27 FCC Rcd at 12411.

¹⁴⁶ Lehr/Musey Study at 31.

¹⁴⁷ *Id.*; *see id.* at n. 82 (“Indeed, in the context of other auctions (such as awarding Universal Service Fund support) the FCC has conducted auctions on a basis as granular as road miles and census tracts.”).

¹⁴⁸ *Id.*

¹⁴⁹ N.E. Colorado Cellular *ex parte* at 8; *see* Lehr/Musey Study at 30-31 (“We do not believe any such increase in costs would be sufficient to outweigh the benefits of using smaller sized license territories.”).

of administrative ease that may result from the adoption of larger license areas would be greatly outweighed by the harm to competition that would result from the use of such license areas.”¹⁵⁰

III. THE COMMISSION SHOULD PROHIBIT ALL FORMS OF PACKAGE BIDDING

USCC strongly opposes the use of any form of package bidding in the upcoming auctions because of the bias, complexity, and minimal real-world experience related to this approach. As detailed below, package bidding could virtually eliminate the opportunity for smaller bidders to acquire licenses, without providing any substantial public interest benefits.¹⁵¹ It is important for the Commission to ensure that actions designed to promote auction participation by small and regional carriers, such as adopting small license areas, are not undermined by auction procedures such as package bidding.

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

USCC stresses that the harms package bidding imposes upon smaller bidders, and the benefits it affords large bidders, could prevent smaller bidders from acquiring the licenses necessary to serve rural areas, while further concentrating our nation’s scarce spectrum resources in the hands of the few already-dominant national carriers.¹⁵² Permitting package bidding therefore would be contrary to the Commission’s goal of selecting bidding procedures “which ensure that the full range of qualified bidders have access to the process.”¹⁵³

¹⁵⁰ RWA Incentive Auction Comments at 2.

¹⁵¹ See *Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, Second Report and Order, 9 FCC Rcd 2348, 2366 (1994) (“*Competitive Bidding Second R&O*”) (“[S]ome of the conditions under which the advantages of combinatorial bidding are apt to be the greatest are not likely to be present for most FCC auctions.”).

¹⁵² See McDuff, DeForest, *Analyzing Package Bidding in the FCC Auction No. 31: Upper 700 MHz Band*, p. 12 (2003) (“*McDuff Study*”) (“The major disadvantage of introducing package bidding is auctions with package bidding favor larger bidders relative to the standard ascending auction.”); Leap Incentive Auction Comments at 9 (“[C]ombinatorial bidding procedures would create significant and unwarranted biases in favor of the largest bidders.”); King Street Incentive Auction Reply at 6 (“[P]ackage bidding provides an advantage to larger bidders.”); RWA Incentive Auction Comments at 9 (“[P]ackage bidding would be helpful only to nationwide carriers seeking broad swaths of spectrum and decidedly unhelpful to small carriers.”); MetroPCS Incentive Auction Comments at 14 (“[C]ombinatorial bidding [] would harm small, rural, and competitive carriers and prospective new entrants.”).

¹⁵³ *Competitive Bidding Second R&O*, 9 FCC Rcd at 2361.

For instance, package bidding greatly increases the likelihood that large bidders will tie-up multiple licenses in large package bids, and thereby exclude smaller bidders with targeted business plans from acquiring the spectrum necessary to serve rural areas.¹⁵⁴ Not only do smaller bidders lack the resources necessary to directly compete for a large package of licenses,¹⁵⁵ they typically have targeted auction strategies, focusing on one or a small number of individual licenses. Smaller bidders, therefore, generally have neither the ability nor desire to compete for a package of licenses. In contrast, “[l]arger and nationwide carriers [] will be inclined to seek large, regional licenses or even a nationwide license if available...”¹⁵⁶ Not only do these carriers have the resources to bid on large packages, but the inclusion of package bidding in an auction in fact motivates them to do so because package bidding “creates an incentive for strategic bidding on large packages.”¹⁵⁷ As a result of this significant disparity between the resources, needs and motivations of small and large bidders, package bidding can drastically skew an auction in favor of large bidders.

Package bidding also can allow large bidders to obtain certain licenses – likely those most desired by small and regional carriers – at a discount because of the well-recognized “threshold problem,” which the Commission has described as:

[T]he difficulty that multiple bidders for the single licenses ... that constitute a larger package may have in outbidding a single bidder on the larger package, even though the multiple bidders may value the sum of the parts more than the single

¹⁵⁴ See MetroPCS Incentive Auction Comments at 14 (“[C]ombinatorial bidding allows large incumbent licensees to acquire spectrum at the expense of new entrants who may have a more targeted approach to a specific geographic area.”); Smith Bagley AWS-3 Reply at 4 (“Package bidding gives larger carriers with substantial resources a distinct advantage at auction, especially against smaller carriers that are focused on bidding for (and serving) smaller geographic areas of the country.”).

¹⁵⁵ See *McDuff Study* at 6 (“Small and rural carriers effectively cannot compete against large deep-pocket companies seeking regional or nationwide licenses...”); MetroPCS Incentive Auction Comments at 13 (“[C]ombinatorial bidding substantially benefits the largest carriers over smaller competitive carriers and allows them to skew outcomes with superior purchasing power.”); King Street Incentive Auction Reply at 6-7 (“[O]nly larger carriers have the access to capital necessary to take advantage of this option.”).

¹⁵⁶ *McDuff Study* at 5.

¹⁵⁷ *Id.* at 12; see *id.* at 12-13 (noting that the “incentive for bidding on the nationwide package is large, and difficult to overcome by smaller bidders.”).

bidder values the whole. This may occur because bidders for parts of a larger package each have an incentive to hold back in the hope that a bidder for another part will increase its bid sufficiently for the bids on the pieces collectively to beat the bid on the larger package.¹⁵⁸

Since all individual bidders can be expected to reason this way, it is likely to be difficult to put together a coalition of bidders to raise their bids enough to beat a combinatorial bid for a larger package.¹⁵⁹

Notably, the potential for package bidding to award licenses to large bidders at a discount can arise even when there is aggressive bidding for individual licenses. While a package of licenses invariably includes several urban areas, the individual licenses desired by smaller bidders typically do not include the most densely-populated markets. As a consequence, the collective total of the bids for individual licenses often will not include the most expensive license(s) in a package, making it highly improbable, if not impossible, that the aggregate bids for individual licenses will exceed the package bids of the national carriers. In other words, even if a smaller bidder assigns a higher value to a particular license, this valuation can be completely undercut by a national carrier able to include that license within a large package bid that includes urban areas.¹⁶⁰ The result is that package bidding “bias[es] auction results in favor of the combination bid,”¹⁶¹ disadvantaging all but the largest bidders and likely excluding smaller bidders from any meaningful auction participation.¹⁶² Package bidding also undermines the

¹⁵⁸ *Auction of Regional Narrowband PCS Licenses Scheduled for September 24, 2003*, Public Notice, DA 03-1065, p. 4 (Apr. 3, 2003).

¹⁵⁹ *Competitive Bidding Second R&O*, 9 FCC Rcd at 2366.

¹⁶⁰ See RWA Incentive Auction Comments at 9; see also CCA Incentive Auction Comments at 18 (“Combinatorial bidding tends to create opportunities for the largest carriers to ‘game’ the system to acquire highly desirable licenses at a discount by packaging them with the most valuable licenses...”); Cellular South Incentive Auction Reply at 5 (“Allowing package bidding will ... substantially increase the risk that smaller operators and new entrants who may place a higher valuation on a given individual license will be shut out.”).

¹⁶¹ *Competitive Bidding Second R&O*, 9 FCC Rcd at 2365.

¹⁶² See *McDuff Study* at 8 (“The threshold problem tends to favor large bidders bidding on large packages.”); *id.* at 12 (“Smaller bidders will find it difficult to outbid large package bids due to the threshold problem.”).

Commission's policy of awarding licenses to those who value them most highly,¹⁶³ and thus risks delaying network deployments.¹⁶⁴

On the other hand, because large bidders' focus would remain on the densely-populated license areas in the absence of package bidding, they would compete against each other for these individual licenses rather than for packages which include these licenses. Due to this continuing competition amongst the large bidders, these licenses likely would sell for approximately the same amount as the valuations these bidders would have assigned to the licenses in developing their package bid amounts. At the same time, because the absence of package bidding would provide smaller bidders a reasonable opportunity to acquire licenses for less densely-populated areas, their increased auction activity likely would cause their bids to exceed the values large bidders would have assigned to these markets as part of a package bid.

The threshold problem created by package bidding, and the disadvantages it causes to smaller bidders, has been accepted for years. In fact, a report submitted to the Commission more than 15 years ago specifically noted that “[t]he determinate biases in the [package bidding] design ... suggest that it could be improved by altering the pricing rule to reduce the biases.”¹⁶⁵ For example, the authors suggested that the Commission adopt rules “which specify that winning bids for individual licenses receive a discount.”¹⁶⁶ In doing so, they explained that, “because [package] bidders can always bid for individual licenses, bidders who wish to acquire large packages [would be] no worse off in this auction than in the FCC's standard auction, regardless

¹⁶³ See *Competitive Bidding Second R&O*, 9 FCC Rcd at 2361 (“[L]icenses generally should be awarded to those who value them most highly...”).

¹⁶⁴ See *id.* at 2349-50 (“Awarding licenses to those who value them most highly ... will likely encourage growth and competition for wireless services and result in the rapid deployment of new technologies and services.”).

¹⁶⁵ Charles River Associates Incorporated and Market Design, Inc., *Report 1B: Package Bidding for Spectrum Licenses*, CRA No. 1351-00, p. 21 (Oct. 1997).

¹⁶⁶ *Id.*

of the discount allowed.”¹⁶⁷ As a result, there would be “little risk to experimenting with moderate discounts, say in the range of 10%-30%.”¹⁶⁸ Unfortunately, despite this long-standing recommendation, when the Commission has proposed package bidding procedures for past auctions, it has failed to offer any such compensation, or any other potentially mitigating procedure, to those exposed to the threshold problem.

Ultimately, if the Commission permits package bidding, it will be those living in rural areas that will be harmed.¹⁶⁹ As detailed above, package bidding would make it far less likely that the licenses will be awarded to small and regional carriers who, in contrast to the national carriers, typically concentrate their build-out efforts in rural and other underserved areas. By withholding the likely benefits of these valuable spectrum resources from those living in these areas, package bidding would significantly impede the desire of both the Commission and President Obama to expand broadband access to all Americans, including those living in rural areas.¹⁷⁰ For this reason in particular, the Commission must not permit any form of package bidding.

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

The unfortunate irony is that, in attempting to deal with the possibility of “exposure” problems for large bidders, package bidding creates substantial exposure risks for bidders seeking only individual licenses. These risks arise because, in an auction with package bidding, the Commission’s auction system considers bids made in previous rounds when determining

¹⁶⁷ *Id.*

¹⁶⁸ *Id.*

¹⁶⁹ See Cellular One *ex parte* at 1 (“An auction structured without HPB will benefit residents and businesses in [rural] areas with an interest in prompt deployment of good quality broadband...”).

¹⁷⁰ See *Competitive Bidding Second R&O*, 9 FCC Rcd at 2350 (noting that the Commission designs its competitive bidding rules “to enhance access to telecommunications services by encouraging broad participation in the provision of spectrum-based services and ensuring that spectrum-based services are available to a wide range of consumers”).

provisionally winning bids, which can cause a dormant bid for an individual license to become provisionally winning many rounds later.¹⁷¹ As detailed below, these risks are most likely to be faced by, and are likely to be most harmful to, smaller bidders with limited bidding eligibility and financial resources.

If a bid for an individual license currently is “losing” because of a provisionally winning package bid, the bidder may decline to increase its bid on that license for a number of reasons. For instance, the bidder may lack the necessary eligibility to increase its bid; any further bidding may exceed the bidder’s valuation of the license; the bidder may believe that a different license which it finds just as desirable will sell for a lower price; or perhaps the bidder fears that the threshold problem amongst those bidding for the individual licenses within the package will be particularly acute. Regardless of the reason why the bidder decides not to increase its bid, if the bidder lacks sufficient bidding eligibility to acquire multiple licenses, it must choose between two options, both of which harm the bidder and the public interest.

One option would be for the bidder to simply cease auction participation rather than risk submitting a bid on another license only to have its first bid suddenly become provisionally winning. In that situation, the bidder, whose auction strategy and business plan involves only a single license, suddenly could be obligated to pay for multiple licenses. It is extremely difficult, if not impossible, for a bidder to know whether a dormant bid will become a provisionally winning bid during a later round because this process “depends upon the bids submitted for that license, the bids submitted for the packages containing that license, and the bids submitted for other licenses in those packages.”¹⁷² Accurately predicting whether a dormant bid may again become active is made even more difficult because a bid can subsequently become provisionally

¹⁷¹ See, e.g., *Auction of H Block Licenses in the 1915-1920 MHz and 1995-2000 MHz Bands; Comment Sought on Competitive Bidding Procedures for Auction 96*, Public Notice, 28 FCC Rcd 10013, 10019 (WTB 2013) (“*Auction 96 Notice*”). In contrast, “[i]n a non-package bidding auction, whether a bid on a license becomes provisionally winning depends only upon the bids submitted for that license.” *Id.* at 10030.

¹⁷² *Id.*

winning even if the bid was not “a provisionally winning bid at the conclusion of the round in which it was placed...”¹⁷³ As a result, many bidders in this situation would feel compelled to terminate their auction participation, and thereby forfeit the opportunity to acquire a license, rather than face such uncertain risks. In turn, auction competition, and thus auction revenue, would decrease.

Although the Commission should never presume that a bidder is interested in only a single license, as the above example demonstrates, that is precisely the effect package bidding could create for many bidders. Such an outcome would conflict with the Commission’s previous finding “that occasionally bidders may need to change bid strategies as prices rise.”¹⁷⁴ It also would prevent a bidder from revising its strategy as an auction progresses because it would bind the bidder to a losing bid placed earlier in the auction – a bid that may remain dormant and thus deprive the bidder of the opportunity to acquire a license. In contrast, without package bidding, a non-provisionally winning bid cannot subsequently be reactivated, which provides bidders with the flexibility necessary to adapt their strategies during the course of an auction.

Our hypothetical bidder’s second option would be to pursue another license even though this would expose it to serious risks. Specifically, the bidder would be risking the possibility that the bids for the other individual licenses within the same package are sufficiently increased so that the package bid no longer is provisionally winning. This would cause the dormant bid to suddenly, and unexpectedly, become provisionally winning, even if the reactivation of that bid caused the bidder to exceed its bidding eligibility.¹⁷⁵ Moreover, this bidder would be financially

¹⁷³ See *id.* at 10029, n. 49 (noting that a “bid that does not become a provisionally winning bid at the conclusion of the round in which it was placed may become a provisionally winning bid at the conclusion of a subsequent round”).

¹⁷⁴ *Notice and Filing Requirements, Minimum Opening Bids, Reserve Prices, Upfront Payments, and Other Procedures for Auctions 73 and 76*, Public Notice, DA 07-4171, ¶ 245 (Oct. 5, 2007) (“*Auction 73 Notice*”).

¹⁷⁵ See *Auction 96 Notice*, 28 FCC Rcd at 10029, n. 49 (noting that a bid placed in an earlier round could become provisionally winning “even if the bidder does not have the bidding eligibility to cover the newly-provisionally winning bid, a situation that would not occur under the FCC’s usual SMR auction procedures”).

liable for this reactivated bid even though the bidder had exceeded its bidding eligibility.¹⁷⁶ In other words, choosing this option could create a binding financial obligation for a license that the bidder had already given up on.

Despite this risk, a bidder may feel compelled to bid on other licenses in order to satisfy its spectrum needs – a decision that may be more likely now than in the past given the current spectrum crunch and the importance of these spectrum bands to wireless carriers. As a result, the Commission should not adopt bidding procedures that could create a financial obligation for an unwanted license, particularly when the circumstances that create this obligation are completely unpredictable and outside of the bidder’s control. Even if a bidder has sufficient resources to purchase both licenses, it should not be forced to do so. It would be far worse, however, to impose this enormous and unintended financial obligation on a bidder who lacks the funds to purchase both licenses. In such a case, the bidder could be forced to default on the license, and thus be liable for a deficiency payment if the license later sells for a lower price.¹⁷⁷ In addition, regardless of the subsequent sale price, the bidder would be liable for a percentage of its bid or the subsequent winning bid, whichever is less.¹⁷⁸ Notably, for auctions with package bidding, the Commission’s rules automatically set this penalty at 25% of the applicable bid.¹⁷⁹

Even if the bidder is not forced to default on this unwanted license, if the reactivated bid caused it to exceed its bidding eligibility, the bidder and all other bidders for individual licenses within the same package would be put at a further competitive disadvantage. Specifically, because the bidder’s eligibility would not be increased in this situation,¹⁸⁰ the bidder would be

¹⁷⁶ See *Auction 73 Notice* at ¶ 245.

¹⁷⁷ See 47 C.F.R. §1.2104(g)(2)(i).

¹⁷⁸ See 47 C.F.R. §1.2104(g)(2)(ii).

¹⁷⁹ See 47 C.F.R. §1.2104(g)(2)(ii).

¹⁸⁰ See, e.g., *Auction 96 Notice*, 28 FCC Rcd at 10029, n. 49.

prohibited from actively competing any further for the license.¹⁸¹ As a result, if the package bid again becomes provisionally winning, the bidder could not raise its bid, forcing the other bidders to independently attempt to overcome the new package bid. Not only would this virtually guarantee that the package bidder will win, it could allow the package bidder to pay less than if the individual bidder had been able to increase its bid. For these reasons as well, permitting package bidding in the upcoming auctions would increase the likelihood of an inefficient allocation of licenses, reduce auction participation, and further bias the auction in favor of package bids.

C. Package Bidding Would Add Unnecessary Complexity to the Auctions.

In contrast to standard SMR auction procedures, which the Commission has described as the “simplest and most flexible means of obtaining single [] licenses or aggregations of [] licenses,”¹⁸² package bidding procedures unnecessarily add yet another layer of complexity to an auction.¹⁸³ Package bidding therefore conflicts with the Commission’s expressed intent “to select bidding procedures that are not overly complex...”¹⁸⁴ For instance, package bidding greatly increases the number of bid possibilities in each round of an auction, which raises the cost for bidders to evaluate their options and probability of success.¹⁸⁵ The fact that the added

¹⁸¹ See, e.g., *Auction 73 Notice* at ¶ 162 (“In subsequent rounds, the bidder will not be permitted to place new bids if its total activity from provisionally winning bids exceeds its bidding eligibility.”).

¹⁸² *Auction of Advanced Wireless Services Licenses Scheduled for June 29, 2006; Comment Sought on Reserve Prices or Minimum Opening Bids and Other Procedures*, Public Notice, 21 FCC Rcd 794, 798 (2006).

¹⁸³ See *Incentive Auction NPRM*, 27 FCC Rcd at 12378 (“Package bidding options generally complicate an auction”); *Competitive Bidding Second R&O*, 9 FCC Rcd at 2366 (“Combinatorial bidding would also add one more layer of complexity to implementing an auction.”); MetroPCS Incentive Auction Comments at 13 (“[C]ombinatorial bidding would add an unnecessary layer of complexity whose benefits are outweighed by the costs.”).

¹⁸⁴ *Competitive Bidding Second R&O*, 9 FCC Rcd at 2361.

¹⁸⁵ See *Id.* at 2366 (“[C]ombinatorial bidding is non-transparent, that is, it would be difficult for bidders to determine in advance what constitutes a high bid.”).

complexity of package bidding substantially increases the length of an auction¹⁸⁶ also creates additional costs for bidders.¹⁸⁷

Moreover, the noted potential for a “losing” bid on an individual license to become provisionally winning many rounds later in the auction substantially increases package bidding’s inherent complexity. Specifically, in addition to factoring in any currently provisionally winning bids when adjusting auction strategy based on its remaining bidding eligibility, a bidder also must worry about dormant bids being reactivated, the potential for which, as noted, is nearly impossible to accurately gauge.¹⁸⁸ And this difficulty only increases during the course of an auction as the number of past bids that could potentially again become active increases. Not only do the limited resources of smaller bidders make it more difficult for them to address this complexity, but smaller bidders are those most likely to face this situation, which arises only with respect to bids on individual licenses.

For these reasons as well, package bidding uniquely disadvantages smaller bidders who, unlike the national carriers, lack the resources required to cover the added costs created by package bidding, including the need to hire game theorists to assist with the additional layer of auction complexity.¹⁸⁹ Package bidding, therefore, can dissuade these bidders from participating

¹⁸⁶ See Cybernomics, Inc., *An Experimental Comparison of the Simultaneous Multi-Round Auction and the CRA Combinatorial Auction*, Report to the FCC, p. 19 (2000) (“*Cybernomics Report*”) (“The Combination auction takes over 3 times as long as the SMR to finish.”).

¹⁸⁷ See *McDuff Study* at 9 (“[P]ackage bidding may make the auctions longer and thus more costly for the bidders.”).

¹⁸⁸ See MetroPCS Incentive Auction Comments at 13 (“Not only [do] bidders have to manage eligibility when bidding on licenses which may be subject to a combinatorial bid, but also [have] to worry about being stranded with non-provisionally winning bids which might mature to actual winning bids.”).

¹⁸⁹ See CCA Incentive Auction Comments at 18 (“[P]ackage bidding can add significant complexity to the bidding process, which can bias the auction in favor of larger carriers with greater resources.”); Leap Incentive Auction Reply at 4 (“[C]ombinatorial bidding procedures would add significant complexity to an already complex process, and in doing so would disadvantage small, midsize, and regional carriers.”).

in an auction, further advantaging large bidders and reducing auction competition, and thus auction revenue.¹⁹⁰

Package bidding also increases the complexity and cost of an auction for the Commission, which further weighs against the use of this auction procedure.¹⁹¹ This is particularly so given the very limited experience the Commission has with package bidding. In fact, Auction 73 remains the only major auction that included package bidding procedures, and those procedures applied only to the 700 MHz C Block, not to the other spectrum blocks included in Auction 73. As such, the extent of the Commission's real-world experience with package bidding in a major spectrum auction involves a *total* of twelve licenses and three pre-defined packages.¹⁹² In contrast, because both of the upcoming auctions will include multiple blocks of spectrum presumably licensed on the basis of service areas far smaller than REAGs, and because both the 600 MHz and AWS-3 spectrum bands are of great interest and importance to many current and potential wireless service providers, these auctions likely will involve a large number of licenses and bidders. As the Commission has observed, although "[t]he complexity of running and participating in a full combinatorial auction may be manageable with 10 bidders and 54 licenses, [] it may not be with hundreds of licenses and bidders."¹⁹³

Consequently, permitting package bidding very well could lead to substantial auction delays, which would make it more difficult for the Commission to meet its statutory obligation to auction and license the AWS-3 bands by February 2015, or to meet its goal of completing the

¹⁹⁰ See *McDuff Study* at 9 ("It is costly for bidders to evaluate such large numbers of package bids. ... This may limit entry to the auction and give an advantage to large bidders.").

¹⁹¹ See *Competitive Bidding Second R&O*, 9 FCC Rcd at 2361 ("[I]n selecting auction methods the Commission must take into account the costs of implementation both for the Commission and potential bidders."); *Cybernomics Report* at 13 ("Auctions that take a long time to close impose a heavy transaction cost upon participants and the FCC.").

¹⁹² The pre-defined packages included: (1) the eight REAGs covering all 50 states; (2) the two REAGs covering Puerto Rico, the U.S. Virgin Islands and the Gulf of Mexico; and (3) the two REAGs covering Guam, the Northern Mariana Islands and American Samoa. See *Auction 73 Notice* at ¶¶ 139-144.

¹⁹³ *Competitive Bidding Second R&O*, 9 FCC Rcd at 2366.

incentive auction by mid-2015. The Commission also has stressed the importance of avoiding any additional complexity in the incentive auction given that it “will be the first such auction ever attempted worldwide.”¹⁹⁴ For the reasons detailed above, package bidding clearly would be contrary to this goal.

D. While Package Bidding Would Significantly Disadvantage Smaller Bidders, the Hypothetical Advantage it Provides Large Bidders is Unnecessary.

While package bidding would subject smaller bidders to the various harms detailed above, large bidders do not require package bidding in order to assemble expansive geographic service areas and attain economies of scale. For instance, the Commission has noted that its standard SMR auction design “offers many of the aggregation advantages of combinatorial bidding,” while at the same time not “creating a free rider problem that may bias the outcome in favor of combinatorial bids...”¹⁹⁵ Accordingly, there is no reason to subject smaller bidders to the bias and strategic burdens caused by package bidding when standard auction procedures provide adequate spectrum aggregation opportunities.

This is particularly so because, while large carriers will have the opportunity to aggregate individual licenses, it is unlikely that small and regional carriers would ever gain access to this spectrum if package bidding allows large carriers to monopolize the auctions. Although the Commission proposes to permit licenses to be partitioned, disaggregated or leased,¹⁹⁶ as USCC

¹⁹⁴ *Incentive Auction NPRM*, 27 FCC Rcd at 12359; *see id.* at 12549 (Statement of Chairman Genachowski) (“[A] key goal of our auction proposal is simplicity.”); *id.* at 12551 (Statement of Commissioner McDowell) (“[S]uccess will come more easily if we proceed with an eye toward regulatory humility, simplicity and restraint.”); *id.* at 12554 (Statement of Commissioner Rosenworcel) (“Simplicity is key. ... [A]t every structural juncture, I believe that a bias toward simplicity is crucial.”); *id.* at 12560 (Statement of Commissioner Pai Approving in Part and Concurring in Part) (“[W]e need to keep our rules as simple as possible.”).

¹⁹⁵ *Competitive Bidding Second R&O*, 9 FCC Rcd at 2366-67; *see Auction of H Block Licenses in the 1915-1920 MHz and 1995-2000 MHz Bands Scheduled for January 14, 2014; Notice and Filing Requirements, Reserve Price, Minimum Opening Bids, Upfront Payments, and other Procedures for Auction 96*, Public Notice, AU Docket No. 13-178, DA 13-1885, ¶ 133 (WTB, rel. Sept. 13, 2013) (concluding that “a standard SMR auction format will offer adequate opportunity for bidders to aggregate licenses in order to obtain the level of coverage they desire consistent with their business plans”).

¹⁹⁶ *See Incentive Auction NPRM*, 27 FCC Rcd at 12485-86; *AWS-3 NPRM*, 28 FCC Rcd at 11533-35.

detailed above, such divestitures have been, and likely will continue to be, the exception rather than the rule. As a consequence, the theoretical availability of these secondary market transactions is unlikely to provide small and regional carriers with any access to these spectrum bands.¹⁹⁷ The Commission therefore must decline to implement package bidding in order to provide smaller carriers with a reasonable opportunity to acquire licenses during the auctions. By doing so, the Commission would permit each auction participant to address its packaging needs at the individual license level while not further biasing the auction in favor of the large national carriers.¹⁹⁸

E. Package Bidding Would Decrease Auction Revenue.

Although a claimed benefit of package bidding is that it maximizes auction revenue, in reality, the various harms caused by package bidding can substantially reduce auction revenue.¹⁹⁹ For instance, because package bidding dissuades auction participation by smaller bidders, auction competition, and thus auction revenue, decreases.²⁰⁰ Moreover, even if smaller bidders do participate, the uncertainty and risks created by package bidding very well could chill their bidding. Also, as noted, package bidding's potential to reactivate currently "losing" bids may compel those bidding on individual licenses to suspend or terminate their auction participation rather than risk being held liable for more licenses than their business plans call for, or perhaps they can afford. The possibility that package bidders will receive certain licenses at a discount obviously also can reduce auction revenues.

¹⁹⁷ See Cellular One *ex parte* at 1 (noting that an auction without package bidding "permit[s] carriers to directly acquire spectrum in or near their existing rural systems without needing to wait to purchase such interests on the aftermarket from a larger carrier that holds it as an afterthought").

¹⁹⁸ See MetroPCS Incentive Auction Comments at 14 ("[C]ombinatorial bidding undermines a market-driven 'building block' approach by allowing large carriers to package large blocks of licenses together to the disadvantage of smaller bidders.").

¹⁹⁹ See, e.g., *Cybernomics Report* at 17 ("The Revenues are higher in the SMR than the Combination auction.").

²⁰⁰ See CCA *ex parte* at 2 ("Package bidding curtails competitive carriers' participation in auctions and can lead to a reduction in overall revenue in certain instances."); Cellular South Incentive Auction Reply at 5 ("Allowing package bidding will lower auction proceeds...").

F. The Use of Package Bidding Would Violate the Commission’s Statutory Obligations.

Permitting package bidding also could run afoul of the Commission’s statutory obligations. The complexity, uncertainty, strategic risks, and significantly reduced likelihood of success caused by package bidding would deter small and regional carriers from participating in the auctions,²⁰¹ leading to less competitive auctions, lower auction revenues, and a high concentration of licenses amongst the few remaining bidders.²⁰² Similarly, CCA noted how the Spectrum Act’s “clear intent to support participation by smaller competitive carriers could be unduly compromised through combinatorial or package bidding, discouraging participation and reducing forward auction revenues.”²⁰³ In addition, package bidding would primarily disadvantage small and regional carriers, who typically are the only licensees willing to concentrate their build-out efforts in rural and other underserved areas.²⁰⁴ Package bidding also could permit large carriers to obtain a package of licenses for a total sum lower than what individual licensees are willing to pay on a per-license basis.²⁰⁵ Finally, the complexity of, as well as the minimal real-world experience with, package bidding could delay the completion of the auction, and thus the distribution of licenses.²⁰⁶

²⁰¹ See 47 U.S.C. §309(j)(4)(D) (FCC must “ensure that small businesses, rural telephone companies, and businesses owned by members of minority groups and women are given the opportunity to participate in the provision of spectrum-based services”).

²⁰² See 47 U.S.C. §309(j)(3)(B) (FCC must “promot[e] economic opportunity and competition ... by avoiding excessive concentration of licenses and by disseminating licenses among a wide variety of applicants, including small businesses, rural telephone companies, and businesses owned by members of minority groups and women”).

²⁰³ CCA Incentive Auction Reply at 10.

²⁰⁴ See 47 U.S.C. §309(j)(3)(D) (FCC must promote “efficient and intensive use of the electromagnetic spectrum”).

²⁰⁵ See 47 U.S.C. §309(j)(3)(C) (FCC must avoid “unjust enrichment through the methods employed”); RWA Incentive Auction Comments at 9 (noting that package bidding would be “inconsistent with Section 309(j) of the Act which prohibits unjust enrichment through competitive bidding”).

²⁰⁶ See 47 U.S.C. §309(j)(3)(A) (FCC must avoid “administrative or judicial delays”).

G. Hierarchical Package Bidding Would Fail to Adequately Address the Substantial Harms Package Bidding Inflicts Upon Smaller Bidders.

Given the significant disadvantages package bidding creates for smaller bidders, the Commission should decline to implement any form of package bidding, including the hierarchical package bidding (“HPB”) framework proposed by AT&T,²⁰⁷ which would fail to adequately address the harms caused by package bidding. For instance, while AT&T claims that HPB would “avoid[] the severe computational complexity” of fully flexible package bidding procedures,²⁰⁸ HPB would nevertheless cause the auctions to be far more complicated than if the Commission implements a standard SMR auction format without package bidding. For instance, even with HPB, individual licenses would be subject to multiple bid possibilities in each round of the auction.²⁰⁹ Moreover, the Commission has noted that, because HPB limits the number of possible license combinations, this auction format “require[s] a determination of the most valuable packages prior to the auction.”²¹⁰ However, “[t]here is no simple way to make such a determination,”²¹¹ particularly for smaller bidders who lack the substantial resources of the few national carriers who alone support package bidding.

HPB also would fail to remedy the significant disadvantages smaller bidders face as a result of the “threshold problem.” As a result, even with HPB, a large bidder could acquire a license as part of a package bid even though a smaller bidder assigned a higher value to that particular license. HPB could in fact make it more likely that the threshold problem prevents

²⁰⁷ See Comments of AT&T Inc., GN Docket No. 12-268, pp. 51-58 (Jan. 25, 2013) (“AT&T Incentive Auction Comments”).

²⁰⁸ *Id.* at 55-56.

²⁰⁹ See *id.* at 55 (“[B]idders could bid on an EA, on a package consisting of all EAs within an MEA, on a package consisting of all EAs (and thus MEAs) within an REA, or on a package consisting of all EAs (and thus MEAs and REAs) within the United States.”). The number of bid possibilities, and thus the auctions’ level of complexity, would increase even further under the revised HPB framework AT&T urges the Commission to implement if it licenses the spectrum on the basis of PEAs. See Letter from Joan Marsh, AT&T, to Marlene Dortch, Secretary, FCC, GN Docket No. 12-268, p. 3, n. 5 (Dec. 3, 2013) (noting that PEAs would be “included as an additional tier”).

²¹⁰ *Competitive Bidding Second R&O*, 9 FCC Rcd at 2366.

²¹¹ *Id.*

smaller bidders from acquiring the licenses they need to serve rural areas. With fully flexible package bidding procedures, bidders can create tailor-made packages of individual licenses, meaning large bidders could assemble packages that include only the densely-populated license areas that are the primary focus of their business plans and which provide the greatest economies of scale. In contrast, because AT&T's HPB proposal would include only predefined packages,²¹² the packages would invariably include not only those license areas most sought after by the large carriers, but also those areas that may not have otherwise been included in any package bids. In other words, HPB's predefined packages could cause less densely-populated markets, which large bidders typically do not focus on during an auction, to "come along for the ride" and end up as part of a large package, and thus be out of reach for smaller bidders who truly desire to serve these more rural markets.

In addition to doing little, if anything, to address the substantial harms package bidding inflicts upon smaller bidders, HPB could withhold some of the advantages that package bidding allegedly would otherwise provide to the largest carriers. For instance, the Commission has noted that, "if there is a wide diversity of desired license groupings, offering only a limited set will not accommodate all preferences and may not enhance efficiency."²¹³ Similarly, Sprint recently explained how HPB procedures do "not allow for efficient aggregation" because the "predetermined packages of licenses presume[] that each participant has the same aggregation strategy" when, in reality, bidders often "have different packaging needs and strategies."²¹⁴ HPB procedures therefore "necessarily favor the aggregation needs of some – and not others – and thereby create external obstacles in the otherwise simple, proven, and efficient SMR design."²¹⁵

²¹² See AT&T Incentive Auction Comments at 54 (noting that its HPB framework would "specify[] allowable package bids such that each pre-defined package is fully nested within the next-larger pre-defined package").

²¹³ *Competitive Bidding Second R&O*, 9 FCC Rcd at 2366.

²¹⁴ Comments of Sprint Corporation, AU Docket No. 13-178, p. 8 (Aug. 5, 2013).

²¹⁵ *Id.* at i.

As a result, in addition to failing to remedy the negative effects detailed above which package bidding generally has on auction revenue, HPB could lead to even less robust bidding if the predefined packages fail to meet the needs of the few likely package bidders.²¹⁶

USCC also notes CCA's recent suggestion that, if the Commission finds that a form of package bidding is necessary as a result of licensing the spectrum on the basis of smaller service areas, the Commission should "create a package of *no more than* the ten largest PEAs by population."²¹⁷ For the myriad reasons detailed above, like CCA, USCC "has consistently advocated against package bidding."²¹⁸ Nevertheless, it appears that CCA's proposal could help to remedy some of the disadvantages package bidding creates for smaller bidders while also addressing large bidders' concern that, without package bidding, they may not acquire enough licenses to attain their desired economies of scale. However, USCC reserves any specific comment on this proposal until it has had an opportunity to examine it more closely.²¹⁹

IV. CONCLUSION

The spectrum that will be made available in the upcoming auctions has the potential to significantly increase broadband access in rural and other underserved areas and to promote much-needed competition in the wireless industry. But this potential will only be realized if the Commission adopts band plans and implements auction procedures that ensure small and regional carriers will have a reasonable opportunity to acquire licenses. USCC believes two actions will prove particularly critical in this respect. First, the Commission should license the spectrum using sufficiently small service areas. While PEA-based licenses would serve the

²¹⁶ See Goeree, J. K. and C. A. Holt, "Hierarchical Package Bidding: A Paper & Pencil Combinatorial Auction," *Games and Economic Behavior* 70(1), 146-169, p. 17 (Sept. 2010) ("[I]f the hierarchical pre-packaging completely mismatches bidders' preferences, the resulting exposure problem that all bidders face would likely reduce bids and revenues.").

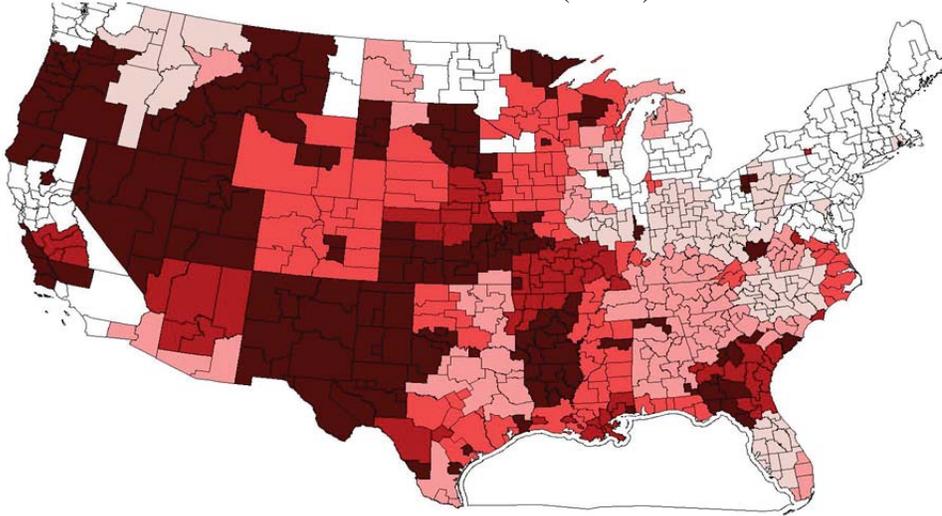
²¹⁷ CCA *ex parte* at 2.

²¹⁸ *Id.*

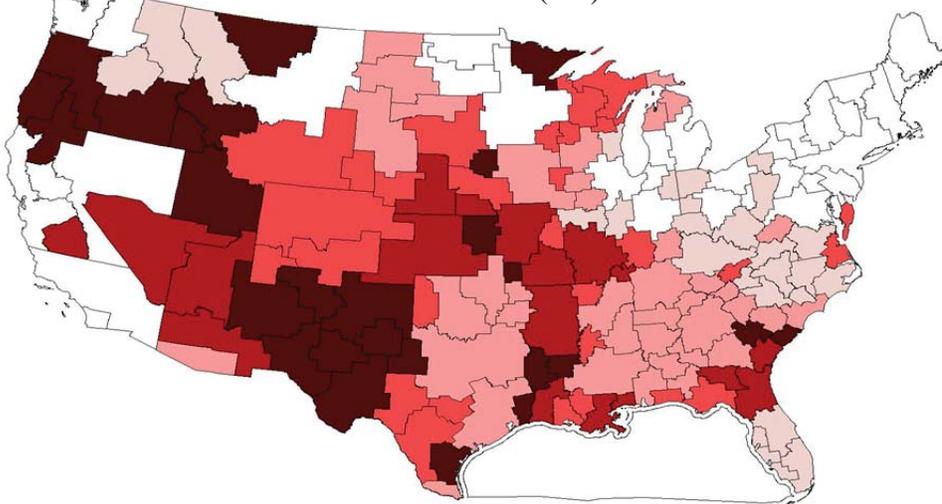
²¹⁹ USCC also notes the report filed on January 7, 2014 by National Economic Research Associates, Inc. USCC plans to substantively address the new proposals contained in this report in its upcoming reply comments.

Estimated MHz Cleared by Repacking Alone

Cellular Market Area (CMA)



Economic Area (EA)



Regional Economic Area Grouping (REAG)

